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October 30, 2017

VIA PRIVATE CARRIER

Mr. James R. Carroll
Program Administrator
Land Restoration Program
Land Management Administration
Maryland Department of the Environment
1800 Washington Boulevard, Suite 625
Baltimore, Maryland 21230

Subject: Transmittal of the Groundwater Monitoring Report March–April 2017
Lockheed Martin Corporation; Middle River Complex
2323 Eastern Boulevard, Middle River, Baltimore County, Maryland

Dear Mr. Carroll:

For your review please find enclosed two hard copies with a CD of the above-referenced document. This groundwater monitoring report summarizes the March-April 2017 groundwater sampling round at Lockheed Martin's Middle River Complex in Middle River, Maryland. If possible, we respectfully request to receive MDE's comments by December 20, 2017.

Please let me know if you have any questions. My office phone is (301) 548-2227.

Sincerely,

Lynnette Drake
Remediation Analyst, Environmental Remediation

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Groundwater Monitoring Report
March–April 2017
Lockheed Martin Middle River Complex
2323 Eastern Boulevard
Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

October 2017

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ACRONYMS

BTEX	benzene, toluene, ethylbenzene, xylenes
cis-1,2-DCE	*cis*-1,2-dichloroethene
COC	chain(s) of custody
cVOC	chlorinated volatile organic compound
DO	dissolved oxygen
GIS	geographic information system
GLM	Glenn L. Martin Company
IDW	investigation-derived waste
LMCPI	LMC Properties, Inc.
Lockheed Martin	Lockheed Martin Corporation
MDE	Maryland Department of the Environment
MEE	methane, ethane, and ethene
µg/L	microgram(s) per liter
mg/L	milligram(s) per liter
ml/min	milliliter(s) per minute
MPE	multi-phase extraction
MRAS	MRA Systems, Inc.
MRC	Middle River Complex
MSA	Martin State Airport
MTBE	methyl *tert*-butyl ether
NAA	natural-attenuation assessment
NAVD88	North American Vertical Datum of 1988
ORP	oxidation-reduction potential
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PDF	portable document format
PM	project manager
QA	quality assurance
QC	quality control
RAP	response action plan
SVOC	semivolatile organic compound
TB	trip blank

TCE	trichloroethene
Tetra Tech	Tetra Tech, Inc.
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VC	vinyl chloride
VLS	vertical-launch systems
VOC	volatile organic compound

Section 1
Introduction

This groundwater monitoring report summarizes the March/April 2017 round of groundwater sampling at the Lockheed Martin Middle River Complex (MRC) in Middle River, Maryland. Figure 1-1 shows the location of the Middle River Complex. This report contains a current round of groundwater levels and chemical data for selected wells as part of ongoing environmental investigations at the facility. These data will be used to define the nature and extent of chemical contamination in groundwater, evaluate the trends of chemical plumes in on-site groundwater, and evaluate the natural attenuation of groundwater chemicals of concern at the Middle River Complex.

Groundwater samples were analyzed for volatile organic compounds (VOCs), 1,4-dioxane (a semivolatile organic compound [SVOC]), polychlorinated biphenyls (PCBs), metals, and natural-attenuation-assessment (NAA) parameters. All wells were inspected to assess their integrity and any need for repairs during sampling. Five wells were repaired (complete well pad replacement) in August 2017. Two monitoring wells (MW11A and MW16A) will be repaired at a later date due to the ongoing sediment removal action now underway in the area of the wells. This report is organized as follows:

Section 2—Site Background: Briefly summarizes the site and references recent reports containing detailed background information related to groundwater.

Section 3—Investigation Approach: Presents the technical approach to the investigation and describes the field methodologies used.

Section 4—Investigation Results: Presents the investigation results.

Section 5—Summary: Summarizes the investigation findings.

Section 6—References: Cites references used to compile this report.



2014 aerial photograph provided by U.S. Geological Survey.

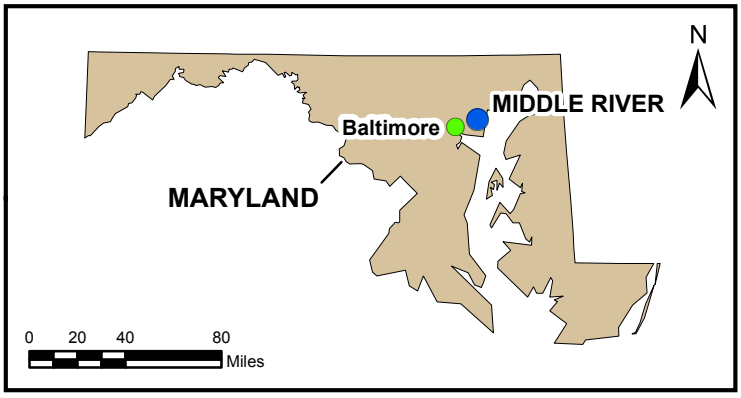

FIGURE 1-1

MIDDLE RIVER COMPLEX
LOCATION MAP

Lockheed Martin Middle River Complex
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
07/10/17	JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_sitemap_jul2017.mxd)
07/10/17 -- JEE

Section 2
Site Background

2.1 MIDDLE RIVER COMPLEX HISTORY AND SITE CHARACTERISTICS

The Middle River Complex (MRC), part of the Chesapeake Industrial Park at 2323 Eastern Boulevard in Middle River, Maryland, is approximately 11.5 miles northeast of downtown Baltimore. It comprises approximately 161 acres, including 12 main buildings, an active industrial area and yard, perimeter parking lots, an athletic field, a vacant concrete lot, trailer and parts storage areas, and numerous grassy spaces along its perimeter. It is bounded by Eastern Boulevard (Route 150) to the north, Martin State Airport (MSA) to the east, Dark Head Cove to the south, and Cow Pen Creek to the west. Figure 2-1 is a map showing the MRC layout.

MRC is owned by LMC Properties, Inc. (LMCPI), a subsidiary of Lockheed Martin Corporation (Lockheed Martin). Currently, LMCPI's primary activities at the MRC are facility and building management and maintenance. The main site tenant (MRA Systems, Inc., [MRAS] [a subsidiary of General Electric Company]) designs, manufactures, fabricates, tests, overhauls, repairs, and maintains aeronautical structures, parts, and components for military and commercial applications. Lockheed Martin Rotary and Mission Systems (formerly Mission Systems & Training, a Lockheed Martin business segment) engineers, fabricates, assembles, tests, and otherwise supports vertical-launch systems. Applied NanoStructured Solutions LLC (a Lockheed Martin subsidiary) also occupies a portion of the MRC and is engaged in research and design of nanotechnology applications.

In 1929, the Glenn L. Martin Company (GLM) (a predecessor entity of Lockheed Martin) acquired large parcels of undeveloped land in Middle River, Maryland on which to manufacture aircraft for United States government and commercial clients. In the early 1960s, GLM merged with American-Marietta Company to form Martin Marietta Corporation. Around 1975, the adjacent eastern airport area (currently MSA), comprised of approximately 750 acres, was transferred to

the State of Maryland. In 1995, Martin Marietta Corporation merged with Lockheed Corporation to form Lockheed Martin Corporation. Shortly after the merger, General Electric Company acquired most of Lockheed Martin's aeronautical business in Middle River, and MRAS began operations at the site.

The MRC is an industrial facility surrounded primarily by commercial, industrial, and residential establishments. Six facilities adjacent to the MRC constitute the remaining portion of the Chesapeake Industrial Park. These include Tilley Chemical Company, Inc. (a food- and pharmaceutical-chemical distributor), Total Industrial Group (a welding contractor; formerly North American Electric, Inc.), Johnson and Towers (a heavy-duty automotive and boat repair and maintenance company), an Ashley Furniture distribution center, Exxon Tiger Mart (a gasoline filling station and convenience store), and the Middle River Post Office. Residential developments are on the opposite shores of Cow Pen Creek, Dark Head Cove, and Dark Head Creek, and north of Eastern Boulevard (Route 150).

2.2 GROUNDWATER AT MIDDLE RIVER COMPLEX

Hydrogeology—Investigations of MRC groundwater began in 1988 and are ongoing. Groundwater at MRC is encountered at depths ranging from less than one foot to nearly 18 feet below grade. In general, the shallowest depths to groundwater are typically found along the shorelines of Dark Head Cove and Cow Pen Creek, and the deepest depths to groundwater are in the upgradient area south of Buildings A, B, and C. In this report, all groundwater discussed is surficial groundwater. Wells sampled during the March/April 2017 sampling typically contain the designations "A," "B," or "C" in their location identifiers, which indicate whether the well is in the upper surficial-aquifer ("A"), intermediate surficial- ("B"), or lower surficial- ("C") aquifer. Shallow groundwater follows site topography and flows radially from the hydraulically upgradient northern portion of the MRC (at Eastern Boulevard and south of Buildings A, B, and C) to the southeast, south, and southwest toward Dark Head Cove and Cow Pen Creek. Deeper groundwater is typically under hydraulically confined conditions at the MRC.

Lithologic logging of the soils beneath the MRC has identified a very heterogeneous stratigraphy. Underlying soils are composed primarily of silty sands, fine- to medium-grained sands, silty clays, clayey silts, and plastic clay, with the primary lithology being clay to silty clay. Areas along the waterfront have been filled to their present elevation over past decades.

Groundwater chemicals of concern—A risk assessment (Tetra Tech, Inc., [Tetra Tech], 2006) identified trichloroethene (TCE), tetrachloroethene (PCE), vinyl chloride (VC), benzene, and certain metals as the most significant contaminants in groundwater at the MRC. The two largest groups of organic chemicals of concern are chlorinated volatile organic compounds (cVOCs) and petroleum-related hydrocarbons. CVOCs include the commonly used solvents PCE and TCE, which degrade into a variety of other cVOCs and volatile organic compounds (VOCs). CVOCs are in groundwater in several areas of the facility; three areas of elevated cVOCs (Figure 2-2) in groundwater are targeted by the current groundwater remedy program (Tetra Tech, 2012a).

Petroleum-based fuels such as gasoline and fuel oil have numerous chemical constituents. Several VOCs associated with fuels are fairly soluble in groundwater and are therefore mobile in the subsurface. The most commonly detected petroleum-VOCs in groundwater at MRC are benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl *tert*-butyl ether (MTBE).

1,4-Dioxane is also a groundwater chemical of concern, because it has been detected at concentrations above its selected screening-concentration for MRC groundwater, and also because it is a contaminant of emerging concern nationwide. The screening level used for 1,4-dioxane is the California Department of Health Services advisory level of 3 µg/L (see Section 4.2); Maryland has no drinking water or groundwater standard or advisory for 1,4-dioxane. Metals (primarily nickel, cobalt, beryllium, and zinc) have been detected in groundwater at concentrations above Maryland Department of the Environment (MDE) groundwater standards (MDE, 2008). Polychlorinated biphenyls (PCBs) have also been detected in Block E groundwater at concentrations exceeding MDE groundwater standards. The sub-sections that follow highlight areas of the site with known cVOC impact in groundwater.

Block I—Building A western plume—Previous groundwater sampling in both the "A" and "B" zones of the surficial aquifer has demonstrated cVOC impact west of Building I; most contamination is within the "A" zone of the surficial aquifer. The maximum TCE concentration is in MW96A near Building A. Available data show that TCE concentrations decrease rapidly to the north, south, and west of this well. This area is undergoing additional investigation to fully delineate TCE concentrations in this area.

Groundwater response-action—MDE approved the MRC *Groundwater Response Action Plan* (Tetra Tech, 2012a) in 2012. Construction of the groundwater-treatment remedy for cVOCs in Tax

Blocks E, G, and I began in early summer 2013. The MRC groundwater response-action now underway is in accordance with the groundwater response action plan (RAP) and a consent order with MDE. The groundwater response-action uses enhanced anaerobic-bioremediation to treat three areas of the MRC that have high groundwater concentrations of TCE. The response action addresses the southeastern TCE area (Block E area), the southwestern TCE area (Block G area), and the northern TCE area (Block I area). These three areas are shown on Figure 2-2.

Semi-permanent injection wells were installed to inject biological amendments into the subsurface. These wells are arranged in rows and connected via underground conveyance piping to injection equipment in each of three TCE areas. The injection equipment and controls are housed in two modified shipping containers (i.e., the equipment modules). This system allows flexibility in selecting and setting system parameters, such as the number of operational injection wells, substrate type and dosage, and injection rates, volumes, and durations. A tracer study was performed for Blocks G and I (May–July 2014) before the full-scale injection to evaluate injection effects and to determine the main injection and operational parameters for the full-scale injection (see Appendix A of the *Operation and Maintenance Plan for Groundwater Remediation System,* [Tetra Tech, 2014a]).

The following subsections discuss the status of the remedial action in each of these areas:

Block G, southwestern TCE plume—The first injection in Block G was completed in June 2015. The second injection, in February 2016, included bioaugmentation. TCE reductions of greater than 99% and VOC reductions of greater than 93% were accomplished in Block G; therefore, only two injection events were needed. Post-injection groundwater monitoring for rebound in Block G was completed in April 2017. The area will be sampled again in 2018, followed by a possible "no further action" request.

Block I, northern TCE plume—The first injection in Block I was completed in June 2015, and the second injection was completed in February 2016. TCE reductions greater than 50% were observed, but distribution of the injected substrate was not adequate to treat the entire remediation area, and additional injections in Block I are currently being implemented. The system in Block I was augmented with a pumping system to lower the groundwater table and aid in substrate distribution. Details of the operation of the groundwater extraction and injection at Block I are in

the *Final Groundwater Response Action Plan, Addendum 3: Remedy Modifications for Block I* (Tetra Tech, 2017).

Block E, southeastern TCE plume—During installation of the groundwater remedy in Block E, two underground storage tanks (USTs) were discovered between the foundation where Building D formerly stood and the concrete road a few feet to the south. UST 2, which contained high concentrations of TCE, was identified and removed during installation of the *in situ* bioremediation system. UST 1, which was nearly empty when discovered, was also removed. UST 1 had underlying soil contaminated with low concentrations of petroleum constituents.

Subsequent investigations indicate that the mass and concentrations of TCE in the immediate former vicinity of UST 2 would not be readily addressed solely via *in situ* bioremediation. With MDE approval, Tetra Tech installed a multi-phase extraction (MPE) system in Block E in 2014. The system operated from September to December 2014 and from March to November 2015 (the system was not designed for winter operation). The MPE system was designed to remove TCE mass (existing as traces of product), groundwater contamination, and soil and vapor contamination from the subsurface near former UST 2.

Block E injections were delayed by the need to address the TCE source associated with UST 2. Additional groundwater sampling in this area followed MPE operation. Additional downgradient TCE impact extending from UST 2 to Dark Head Cove is currently under investigation. Proposed modifications to the Block E remedy will be included in an amendment to the groundwater RAP. Remediation of Block E groundwater is scheduled to begin in 2019.

The general operational procedures and operation details for the unmodified groundwater remediation system are described in the *Operation and Maintenance Plan for Groundwater Remediation System* (Tetra Tech, 2014a) and in Appendix A1 of the *Block E Tracer-Testing Work Plan*, an addendum to that document (Tetra Tech, 2016a). Additional details regarding MRC background and history, including details of previous environmental investigations and discussions of contaminant source areas, are in the RAP and subsequent groundwater monitoring reports (Tetra Tech, 2009, 2012a–d; 2013; 2014b, 2015a, 2016b).



FIGURE 2-1

SITE LAYOUT AND TAX BLOCKS
MIDDLE RIVER COMPLEX

LEGEND

TAX BLOCK

2014 aerial photograph provided by U.S. Geological Survey.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 225 450 Feet

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DATE MODIFIED: 07/10/17

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Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_tax_blocks_jul2017_aerial.mxd)
07/10/17 -- JEE

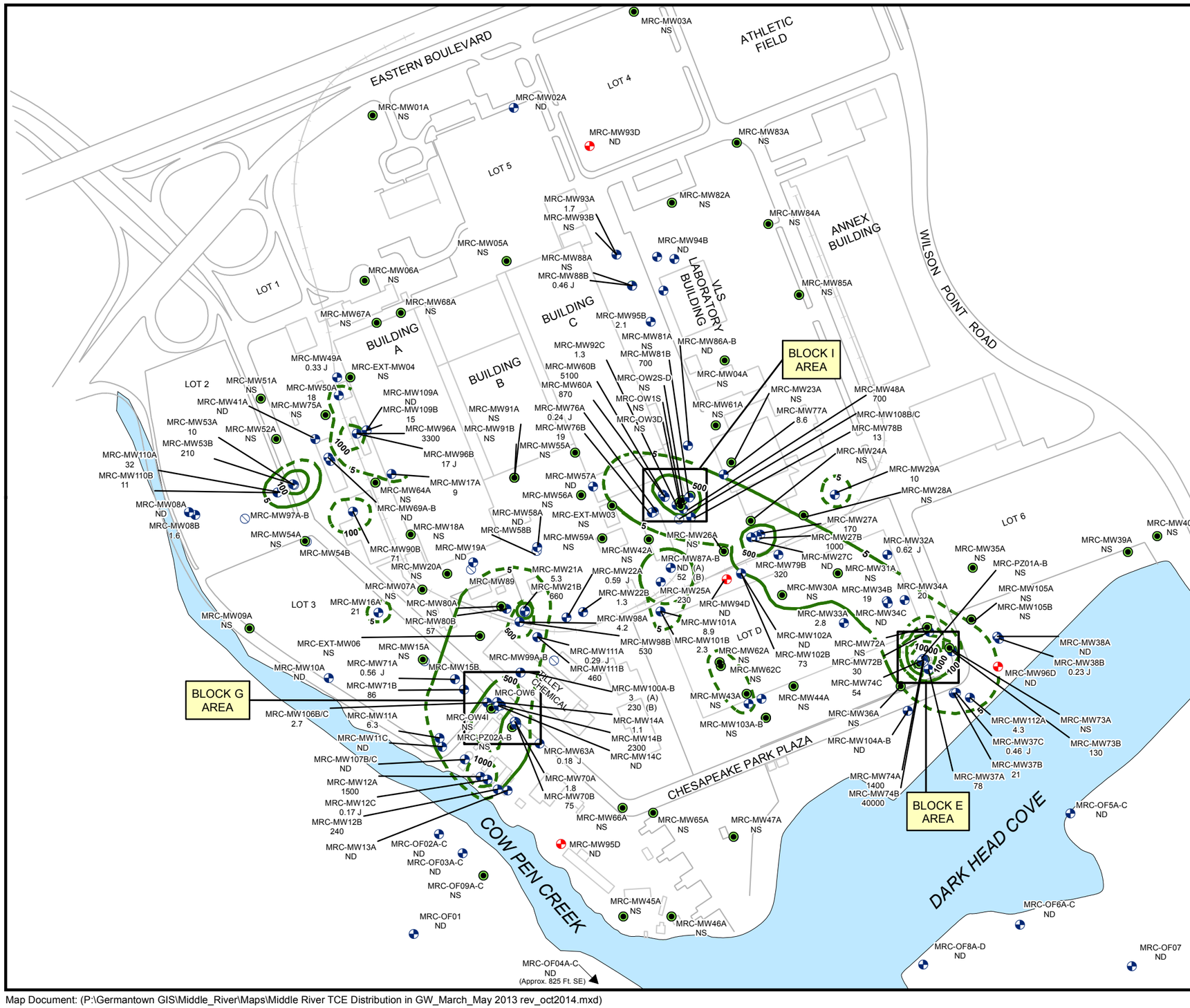

FIGURE 2-2

DISTRIBUTION OF TCE IN GROUNDWATER AND GROUNDWATER REMEDY AREAS IN 2016

LEGEND

- GROUNDWATER TREATMENT AREA
- GROUNDWATER MONITORING WELL SAMPLED
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL (SAMPLED)
- WELLS NOT SAMPLED
- ABANDONED WELL BORING
- TCE CONCENTRATION IN UG/L (DASHED WHERE INFERRED)
- 52 MAXIMUM CONCENTRATION IN WELL (UG/L)
- SURFACE WATER

ND = NOT DETECTED
NS = NOT SAMPLED
TCE = TRICHLOROETHENE
UG/L = MICROGRAMS PER LITER

GROUNDWATER STANDARD FOR TCE IS 5 UG/L

Lockheed Martin Middle River Complex
Middle River, Maryland

0 200 400 Feet

N

DATE MODIFIED: 08/23/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\Germantown GIS\Middle_River\Maps\Middle River TCE Distribution in GW_March_May 2013 rev_oct2014.mxd)
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Section 3
Investigation Approach

The 2017 groundwater-sampling program for the Middle River Complex (MRC) included synoptic groundwater-level measurements and the collection of groundwater samples for laboratory chemical analyses. This sampling round augments groundwater data and level measurements obtained from 2003–2016. The results also supplement the performance-monitoring samples collected at the remediation areas in Blocks G and I.

3.1 SYNOPTIC GROUNDWATER-LEVEL MEASUREMENTS

A synoptic round of groundwater-level measurements was conducted on March 6–7, 2017. The air- and water-tight sanitary seals on flush-mounted well casings were opened on March 5, 2017, the day before water levels were measured, to allow air pressure and groundwater in the casings to reach equilibrium. Static water levels were measured using a graduated electronic-sounding water-level meter; note that static water levels in SEMW7I and SEMW8S were inadvertently not recorded.

The static water level was determined by lowering the meter's probe into the well until the liquid level-indicator emitted an audible tone, indicating the air/water interface. The water level was read from the probe cable at the reference elevation (top of the plastic well casing) and recorded to the nearest 0.01 foot. Water levels and the time of measurement were recorded on a field form, and were used to develop groundwater-elevation contour maps for the surficial aquifer. The groundwater-level field form is in Appendix A. The water level summary is in Section 4.

Two wells (MRC-MW16A and MRC-MW72A) could not be located during the water-level round; therefore, groundwater levels at those wells could not be measured. MW16A is in the eastern portion of Block G/Lot 3 and is assumed to have been covered with gravel during the installation of a haul road for the 2016 sediment-removal action. MW72A is in the southeastern portion of Block E/Lot D and might have been affected during groundwater remedy construction. Attempts to locate the wells by field survey and geophysics were successful for MW16A and unsuccessful

for MW72A. MW16A was sampled on June 7, 2017, and the water level at this well was measured at that time. Tetra Tech is currently working with a licensed driller to complete the abandonment forms for MW72A.

3.2 GROUNDWATER SAMPLING

Groundwater samples were collected from 118 on-site wells from March 8–April 21, 2017 and June 7, 2017. Chemical analyses of groundwater samples vary by well, as detailed in the work plan, depending on the data needed for that particular area. Wells sampled for this round are shown on Figure 3-1; the chemical analyses performed for each sample are listed in Table 3-1.

The following variations from the 2016–2017 work plan occurred during the 2017 sampling round:

- monitoring well MW72A was scheduled to be sampled for 1,4-dioxane/total metals, but could not be found due to previous earth moving near the well
- monitoring well MW16A initially could not be located, but was later found and subsequently sampled on June 7, 2017
- monitoring well MW16A was sampled for total metals in addition to the other analyses listed in the work plan
- monitoring well MW112A was scheduled to be sampled for VOCs, 1,4-dioxane, and polychlorinated biphenyl (PCB) homologs, but this well was abandoned this year before sampling to allow activities associated with the stormwater infrastructure investigation

Monitoring wells MW104A and MW104B were also sampled for PCB homologs based on an agreement after the work plan was finalized.

Wells were purged and sampled using the following procedures:

- ***Well purging—***Monitoring wells were purged before sample collection using low-flow-purging techniques via a peristaltic pump (fitted with dedicated, disposable, Teflon®-lined tubing) positioned in the center of the well's saturated-screen length. The pumping rate during purging ranged between 100–300 milliliters per minute (ml/min); and the rate was constantly measured using a graduated cylinder. The purge rate was adjusted, but was not allowed to fall below 100 ml/min, to minimize drawing the water level below its static-water level.

  Water-level-drawdown measurements and groundwater parameters were collected every five to 10 minutes until purging was complete. Groundwater parameters (including pH [a measure of acidity and alkalinity], temperature, specific conductance, dissolved oxygen [DO], oxidation-reduction potential [ORP], and turbidity) were also measured during

purging. These data were recorded on low-flow-purge data sheets. Water-quality parameters were measured with an inline water-quality meter. Turbidity readings were collected using a separate turbidity meter. Groundwater purging and sample-record sheets are in Appendix B.

Purging was considered complete when: (a) the monitored water-quality parameters stabilized, (b) three saturated well-casing volumes had been removed, or (c) the well had been purged dry. Stabilization was considered achieved when three consecutive readings taken at five-minute intervals were within ±0.1 standard units for pH, ±3% for specific conductance and temperature, ±10% for DO and ORP, and less than 10 nephelometric turbidity units for turbidity. If the monitoring well was purged dry, the water level was allowed to recover at least 80% of its initial static-water level before sampling it for groundwater. All purged water was collected in United States Department of Transportation (USDOT)-approved 55-gallon steel drums that had been staged in the central portion of the MRC D-lot.

- ***Sample collection—***Each monitoring well was sampled after purging; sampling was completed without stopping flow, using the same dedicated tubing or submersible pump as had been used during purging. Groundwater was pumped directly into certified-clean sample containers supplied by the analytical laboratory. Sample containers for VOC analyses were filled directly, to minimize VOC losses. Groundwater samples for VOCs were collected first, followed by samples to be analyzed for 1,4-dioxane, polychlorinated biphenyls (PCBs), metals, and natural-attenuation-assessment (NAA) parameters. Duplicates were collected at a rate of 5% (1:20 basis) to evaluate laboratory analytical precision. Trip blank (TB) samples, provided by the laboratory and carried throughout the sampling event, were analyzed to ensure VOC quality assurance (QA) and quality control (QC). Trip blanks were submitted at a rate of one per cooler of VOCs per day. Matrix-spike and matrix-spike-duplicate samples were also collected and analyzed on a 1:20 basis.

3.3 WELL REPAIR

The condition of accessible MRC wells was documented during collection of the synoptic groundwater-levels on March 6–7, 2017. The well-condition information is in the right column of the groundwater-level measurement sheets in Appendix A. This inspection led to the repair of five MRC monitoring wells following the 2017 groundwater sampling program (Tetra Tech, 2016c). Additionally, one monitoring well (MW16A) will be repaired at a later date because activities associated with the sediment-removal action are ongoing in this area. Repairs completed after sampling include replacing the concrete pads and flush-mounted covers of five wells (MW11A, MW25A, MW37C, MW53A, and MW109A/B). The condition of the six wells requiring repair did not affect sampling or groundwater quality.

3.4 LABORATORY ANALYSES

Samples from the subject wells were analyzed for the following chemicals (Table 3-1):

- VOCs, by United States Environmental Protection Agency (USEPA) Method 8260C
- 1,4-dioxane, by USEPA Method 522
- PCBs, by USEPA Method 680 (PCB homologs)
- total metals, as listed in Table 3-1, by USEPA Methods 6020A, 6010C, and 7470A (mercury)
- hexavalent chromium, by USEPA Method 218.6
- NAA parameters, by USEPA SW-846 protocols (for nitrate/nitrite, ammonia nitrogen, orthophosphate, potassium, sulfate, chloride, total alkalinity, total iron, total manganese, silicon dioxide, total dissolved solids, and dissolved organic carbon)
- methane, ethane, and ethene (MEE) by USEPA Method RSK-175

Two fixed-base laboratories were used for sample analysis. ALS Environmental of Middletown, Pennsylvania performed the hexavalent chromium analyses, and TestAmerica, Inc. of North Canton, Ohio performed all other analyses.

3.5 DOCUMENTATION

A master site logbook was maintained to document field activities. Sample documentation consists of completed chain-of-custody (COC) reports and matrix-specific sample log-sheets. The COC report is a standardized form summarizing and documenting pertinent sample information such as sample identification and type, the sampled matrix, date and time of collection, preservation, and requested analysis. Sample custody procedures document sample acquisition and integrity. COC reports are in Appendix C with the data-validation reports.

3.6 EQUIPMENT DECONTAMINATION

Reusable equipment (e.g., water-level meter, submersible pump) was decontaminated before and after each use. Decontamination of reusable small equipment involved the following:

- Liquinox® (a laboratory-grade, phosphate-free, ionic/anionic surfactant) and potable-water wash

- potable-water rinse
- distilled-water rinse
- air drying

Decontamination-rinsate water was transferred into 55-gallon drums staged in the central portion of the MRC D-lot for subsequent disposal. Dedicated and/or disposable equipment that did not require decontamination was used for groundwater purging/sampling.

3.7 WASTE MANAGEMENT

Well purge-water was collected as investigation-derived waste (IDW) in five USDOT-approved 55-gallon steel drums. The drums were stored at an approved central staging area on the facility's D-lot, pending waste-profile-sampling results. Four of the drums were deemed nonhazardous based on waste characterization sampling. One drum was conservatively classified as hazardous without having collected a waste characterization sample, because it contained waste from wells in an area of Block E known to contain elevated trichloroethene (TCE) concentrations (i.e., the area adjacent to UST 2). Although no history of TCE use is documented for UST 2, it was conservatively assumed to contain spent solvent (a listed waste).

The results were provided to Clean Harbors, Inc. (a Maryland-licensed waste transporter). Upon receipt of the IDW analytical data, Clean Harbors, Inc. removed the IDW from the MRC and properly disposed of the nonhazardous waste at the Clean Harbors, Inc. Cleveland, Ohio facility and the hazardous drum at the Clean Harbors, Inc. facility in El Dorado, Arkansas (both are Lockheed Martin Corporation- [Lockheed Martin-] approved waste treatment facilities) in accordance with federal, state, and local regulations. IDW forms are in Appendix D.

3.8 GENERAL SAMPLING PROCEDURES, NOMENCLATURE, AND HANDLING

A master site logbook was maintained for the sampling program to document field activities. Each sample collected was given a unique sample identification consisting of the site, well name, and sampling date (e.g., MRC-MW13A-041217). Trip blanks were labeled with a "TB" prefix followed by a six-digit submittal date (e.g., TB-042117). Sample handling includes field-related considerations concerning selection of sample containers, preservatives, allowable holding times, and analyses requested.

Proper custody procedures were followed throughout all phases of sample collection and handling. COC protocols were used throughout sample handling to document the integrity of sample containers. These protocols document that samples were handled and transferred in a manner that eliminates (or detects) possible tampering. Sample containers were released under signature from the laboratory and were accepted under signature by a responsible individual who maintained custody until the sample containers had been transferred to the sampling team. Groundwater samples were released under signature from the sampling team and were accepted under signature by the laboratory.

Transport containers returning to the laboratory were sealed with strapping tape and a tamper-resistant custody seal. The custody seal shows the signature of the individual releasing the transport container, along with the date and time. Signed COC are in Appendix C. They are also in each laboratory report and data-validation report as internal supporting documentation.

3.9 DATA VALIDATION

Data validation involves having a party independent of the analytical laboratory review the laboratory data to ensure that specific criteria established in the sampling and analysis work plan and in the analytical method have been met. These criteria are concerned with specifications that are not sample-dependent; they specify performance requirements that should be fully under a laboratory's control. For organic-data analyses, specific validation areas include blanks, performance-evaluation-standard materials, and instrument-performance checks. For inorganic-data analyses, specific validation areas include blanks, calibration standards, calibration-verification standards, laboratory-control standards, and interference-check standards.

Once the investigation was complete, chemical data were validated by Tetra Tech in accordance with established USEPA protocols to assess the reliability and accuracy of the data. This review was based on the USEPA *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, 2017a) *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017b) and the specifics of the analytical method used. Data-validation reports are in Appendix C (on compact disc). Appendix E summarizes all analytical results for the 2017 MRC groundwater-sampling program, including nondetects.

Validation of these data concluded that they are acceptable for their intended uses (i.e., risk screening and risk assessment). The data qualifiers (i.e., flags) applied to the chemical results during data validation are listed below:

J The analyte is considered present in the sample, but the value is estimated and may not meet highest accuracy or precision standards. In this program, samples were qualified with "*J*" because quantitation was above the method detection-limit but below the practical quantitation-limit. A "*J*" qualifier can also be applied if one or more quality control specifications were not met. In these cases, if non-conformance did not affect correct identification of the analyte, but could have resulted in quantitation that did not meet highest accuracy or precision standards, a "*J*" qualifier would be applied.

U Not detected; the analyte is considered not detected at the reported value.

UJ The analyte was not detected. However, the quantitation or detection limit may be inaccurate or imprecise.

These flags (i.e., *J, U,* and UJ) appear in the chemical-results tables in Section 4 and in Appendices C and E.

3.10 DATA MANAGEMENT

Laboratory data-handling procedures met the requirements set forth in the laboratory subcontract. All analytical and field data are maintained in the project files. The project files contain copies of the COC, sampling log forms, sampling location maps, and data quality-assurance documentation.

3.10.1 Data Tracking and Control

A "cradle to grave" sample-tracking system was used from the beginning to the end of sampling. The field operations leader coordinated sample tracking before field mobilization. Sample jar labels were handwritten in the field. Labels were reviewed to ensure their accuracy and adherence to work plan requirements. The project manager's (PM) assistant coordinated with the analytical laboratory to ensure that they were aware of the number and type of samples and analyses to expect.

When field sampling was underway, the field operations leader forwarded the COC to the PM's assistant and to the laboratory for each day that samples were collected. The PM's assistant confirmed that the COC provided the information required by the work plan. This allowed early detection of errors made in the field so that adjustments could be made while the field team was mobilized. The laboratory submitted an electronic deliverable for the sample delivery groups.

When all electronic deliverables had been received from the laboratory, the PM's assistant confirmed that the laboratory performed all analyses requested.

3.10.2 Sampling Information

Data from field measurements were recorded using the appropriate log sheets, as per Tetra Tech's standard operating procedure SA-6.3. Reduction of field data entailed summarizing and presenting these data in tabular form. Reduction of laboratory data entailed manipulating raw data-instrument output into reportable results. Laboratory data were verified by the group supervisor and then by the laboratory's QC/documentation department.

3.10.3 Project-Data Compilation

The analytical laboratory generated an Adobe *Acrobat*® portable document format (PDF) file of the analytical data packages, as well as an electronic database deliverable. The electronic database was checked against the PDF file provided by the laboratory and updated as required, based on data-qualifier flags applied during data validation. Data generated during implementation of the sampling and analysis plan were incorporated into the MRC environmental geographic information system (GIS) database. All data (such as units of measure and chemical nomenclature) were checked to maintain consistency with the project database.

3.10.4 Geographical Information System

The data management system for this effort consists of a relational database and GIS to manage environmental information pertaining to MRC. The relational database stores chemical, geological, hydrogeologic, and other environmental data collected for the MRC environmental investigations. The GIS is built from the relational database and contains subsets of the larger data pool. Using the GIS, environmental data were posted onto base maps to represent the information graphically for this report.

Table 3-1

Wells Sampled in 2017, Chemical Analyses, and Laboratory Analytical Methods
Lockheed Martin Middle River Complex, Middle River, Maryland
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Well ID	Volatile Organic Compounds (USEPA Method 8260C)	1,4-Dioxane (USEPA Method 522)	Total Metals[1] (USEPA Method 6020A)	Hexavalent Chromium (USEPA Method 218.6)	PCB Homologs and Chlorinated Benzenes (USEPA Methods 680 and 8260C)	PCB Homologs (USEPA Method 680)	MEE and NAA Parameters (SW-846 various and Microseeps® AM 20GAX)	2017 Wells Sampled
MRC-MW01A								
MRC-MW02A	X							X
MRC-MW03A								
EXT-MW03								
MRC-MW04A								
EXT-MW04								
MRC-MW05A								
MRC-MW06A								
EXT-MW06								
MRC-MW07A		X		X				X
MRC-MW08A	X	X						X
MRC-MW08B	X	X						X
MRC-MW09A								
MRC-MW10A	X	X						X
MRC-MW11A	X	X	X					X
MRC-MW11C	X	X	X					X
MRC-MW12A	X	X	X				X	X
MRC-MW12B	X	X	X				X	X
MRC-MW12C	X	X	X					X
MRC-MW13A	X	X						X
MRC-MW14A	X	X	X					X
MRC-MW14B	X	X	X				X	X
MRC-MW14C	X	X	X					X
MRC-MW15A		X						X
MRC-MW16A	X	X	X	X				X
MRC-MW17A	X	X		X				X
MRC-MW18A				X				X
MRC-MW19A	X	X						X
MRC-MW20A								
MRC-MW21A	X	X						X
MRC-MW21B	X	X					X	X
MRC-MW22A	X	X						X
MRC-MW22B	X	X						X
MRC-MW23A								
MRC-MW24A							X	X
MRC-MW25A	X	X					X	X
MRC-MW26A								
MRC-MW27A	X	X					X	X
MRC-MW27B	X	X					X	X
MRC-MW27C	X	X						X
MRC-MW28A								
MRC-MW29A	X							X
MRC-MW30A								
MRC-MW31A								
MRC-MW32A	X							X
MRC-MW33A	X	X						X
MRC-MW34A	X	X						X
MRC-MW34B	X	X					X	X
MRC-MW34C	X	X						X
MRC-MW35A								
MRC-MW36A								
MRC-MW37A	X	X	X			X	X	X
MRC-MW37B	X	X				X	X	X
MRC-MW37C	X	X				X		X
MRC-MW38A	X							X
MRC-MW38B	X							X
MRC-MW39A								
MRC-MW40A								
MRC-MW41A	X	X						X
MRC-MW42A								
MRC-MW43A					X			X
MRC-MW44A		X			X			X

Table 3-1

Wells Sampled in 2017, Chemical Analyses, and Laboratory Analytical Methods
Lockheed Martin Middle River Complex, Middle River, Maryland
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Well ID	Volatile Organic Compounds (USEPA Method 8260C)	1,4-Dioxane (USEPA Method 522)	Total Metals[1] (USEPA Method 6020A)	Hexavalent Chromium (USEPA Method 218.6)	PCB Homologs and Chlorinated Benzenes (USEPA Methods 680 and 8260C)	PCB Homologs (USEPA Method 680)	MEE and NAA Parameters (SW-846 various and Microseeps® AM 20GAX)	2017 Wells Sampled
MRC-MW45A								
MRC-MW46A								
MRC-MW47A								
MRC-MW48A	X	X	X				X	X
MRC-MW49A								
MRC-MW50A	X							X
MRC-MW51A								
MRC-MW52A								
MRC-MW53A	X	X						X
MRC-MW53B	X	X						X
MRC-MW54A								
MRC-MW55A								
MRC-MW56A								
MRC-MW57A	X							X
MRC-MW58A	X	X						X
MRC-MW59A								
MRC-MW60A	X	X	X					X
MRC-MW60B	X	X	X				X	X
MRC-MW61A								
MRC-MW62A					X			X
MRC-MW62C					X			X
MRC-MW63A	X	X						X
MRC-MW64A				X				X
MRC-MW65A								
MRC-MW66A								
MRC-MW67A								
MRC-MW68A								
MRC-MW69A	X	X						X
MRC-MW69B	X	X						X
MRC-MW70A	X	X	X					X
MRC-MW70B	X	X	X					X
MRC-MW71A	X	X	X					X
MRC-MW71B	X	X	X					X
MRC-MW72B	X	X	X				X	X
MRC-MW73A		X	X					X
MRC-MW73B	X	X	X					X
MRC-MW74A	X	X	X			X		X
MRC-MW74B	X	X	X			X		X
MRC-MW74C						X		X
MRC-MW75A								
MRC-MW76A	X							X
MRC-MW76B	X							X
MRC-MW77A	X							X
MRC-MW78B	X		X					X
MRC-MW79B	X	X						X
MRC-MW80A		X						X
MRC-MW80B	X	X						X
MRC-MW81A		X	X					X
MRC-MW81B	X	X	X				X	X
MRC-MW82A								
MRC-MW83A								
MRC-MW84A								
MRC-MW85A								
MRC-MW86A								
MRC-MW86B								
MRC-MW87A	X	X						X
MRC-MW87B	X	X						X
MRC-MW88A								
MRC-MW88B	X							X
MRC-MW90B	X	X						X
MRC-MW91A								

Table 3-1

Wells Sampled in 2017, Chemical Analyses, and Laboratory Analytical Methods
Lockheed Martin Middle River Complex, Middle River, Maryland
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Well ID	Volatile Organic Compounds (USEPA Method 8260C)	1,4-Dioxane (USEPA Method 522)	Total Metals[1] (USEPA Method 6020A)	Hexavalent Chromium (USEPA Method 218.6)	PCB Homologs and Chlorinated Benzenes (USEPA Methods 680 and 8260C)	PCB Homologs (USEPA Method 680)	MEE and NAA Parameters (SW-846 various and Microseeps® AM 20GAX)	2017 Wells Sampled
MRC-MW91B								
MRC-MW92C	X	X	X					X
MRC-MW93A	X							X
MRC-MW93B								
MRC-MW93D								
MRC-MW94B	X							X
MRC-MW94D								
MRC-MW95B	X							X
MRC-MW95D								
MRC-MW96A	X	X						X
MRC-MW96B	X	X						X
MRC-MW96D								
MRC-MW98A	X	X						X
MRC-MW98B	X	X						X
MRC-MW100A	X	X						X
MRC-MW100B	X	X						X
MRC-MW101A	X	X						X
MRC-MW101B	X	X						X
MRC-MW102A	X							X
MRC-MW102B	X	X						X
MRC-MW103A					X			X
MRC-MW103B					X			X
MRC-MW104A	X					X		X
MRC-MW104B	X					X		X
MRC-MW105A								
MRC-MW105B								
MRC-MW106B/C	X		X					X
MRC-MW107B/C	X		X					X
MRC-MW109A	X							X
MRC-MW109B	X							X
MRC-MW110A	X	X						X
MRC-MW110B	X	X						X
MRC-MW111A	X	X						X
MRC-MW111B	X	X						X
MRC-MW113A	X	X			X			X
MRC-MW114A	X	X			X			X
MRC-MW115A	X							X
MRC-MW116A	X							X
MRC-SEMW-7I[2]	X	X	X	X	X	X		X
MRC-SEMW-8S[2]	X	X	X	X	X	X		X
MRC-SEMW-8I[2]	X	X	X	X	X	X		X
MRC-SWMW-1I	X							X
MRC-SWMW-2I	X							X
MRC-SWMW-3I	X							X
MRC-SWMW-4S	X							X
MRC-SWMW-4I	X							X
MRC-SWMW-5I	X							X
MRC-PZ01A								
MRC-PZ01B								
MRC-PZ02A								
MRC-PZ02B								
MRC-OW1S								
MRC-OW1I								
MRC-OW1D								
MRC-OW2S								
MRC-OW2I								
MRC-OW2D								
MRC-OW3S								
MRC-OW3I								
MRC-OW3D								
MRC-OW4S								

Table 3-1

Wells Sampled in 2017, Chemical Analyses, and Laboratory Analytical Methods
Lockheed Martin Middle River Complex, Middle River, Maryland
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Well ID	Volatile Organic Compounds (USEPA Method 8260C)	1,4-Dioxane (USEPA Method 522)	Total Metals[1] (USEPA Method 6020A)	Hexavalent Chromium (USEPA Method 218.6)	PCB Homologs and Chlorinated Benzenes (USEPA Methods 680 and 8260C)	PCB Homologs (USEPA Method 680)	MEE and NAA Parameters (SW-846 various and Microseeps® AM 20GAX)	2017 Wells Sampled
MRC-OW4I								
MRC-OW5S								
MRC-OW5D								
MRC-OW6S								
MRC-OW6I								
MRC-OF01								
MRC-OF02A								
MRC-OF02B								
MRC-OF02C								
MRC-OF03A								
MRC-OF03B								
MRC-OF03C								
MRC-OF04A								
MRC-OF04B								
MRC-OF04C								
MRC-OF05A								
MRC-OF05B								
MRC-OF05C								
MRC-OF06A								
MRC-OF06B								
MRC-OF06C								
MRC-OF07								
MRC-OF08A								
MRC-OF08B								
MRC-OF08C								
MRC-OF08D								
MRC-OF09A								
MRC-OF09B								
MRC-OF09C								

1 Metals are Ag (silver), As (arsenic), Ba (barium), Be (beryllium), Cd (cadmium), Co (cobalt), Cr (chromium), Cu (copper), Hg (mercury), Ni (nickel), Mo (molybdenum), Pb (lead), Sb (antimony), Se (seleniu Tl (thallium), V (vanadium), Zn (zinc).

2 These are three newly-installed wells near the southeastern TCE plume southeast of the 500,000-gallon aboveground water tank.

A - upper surficial aquifer well

B - intermediate surficial aquifer well

C - lower surficial aquifer well

D - deep confined aquifer for MW93D through MW96D

EXT - existing (for wells prior to the voluntary cleanup program in 2002)

MEE- methane, ethane, and ethene via AM 20GAX or equivalent

MRC - Middle River Complex

NAA - natural attenuation assesment

OF - off facility

OW - observation wells used for treatability testing (not typically sampled)

PCB - polychlorinated biphenyl

PZ - well used for aquifer hydraulics tested

TCE - trichloroethene

USEPA - United States Environmental Protection Agency

VOCs - volatile organic compounds

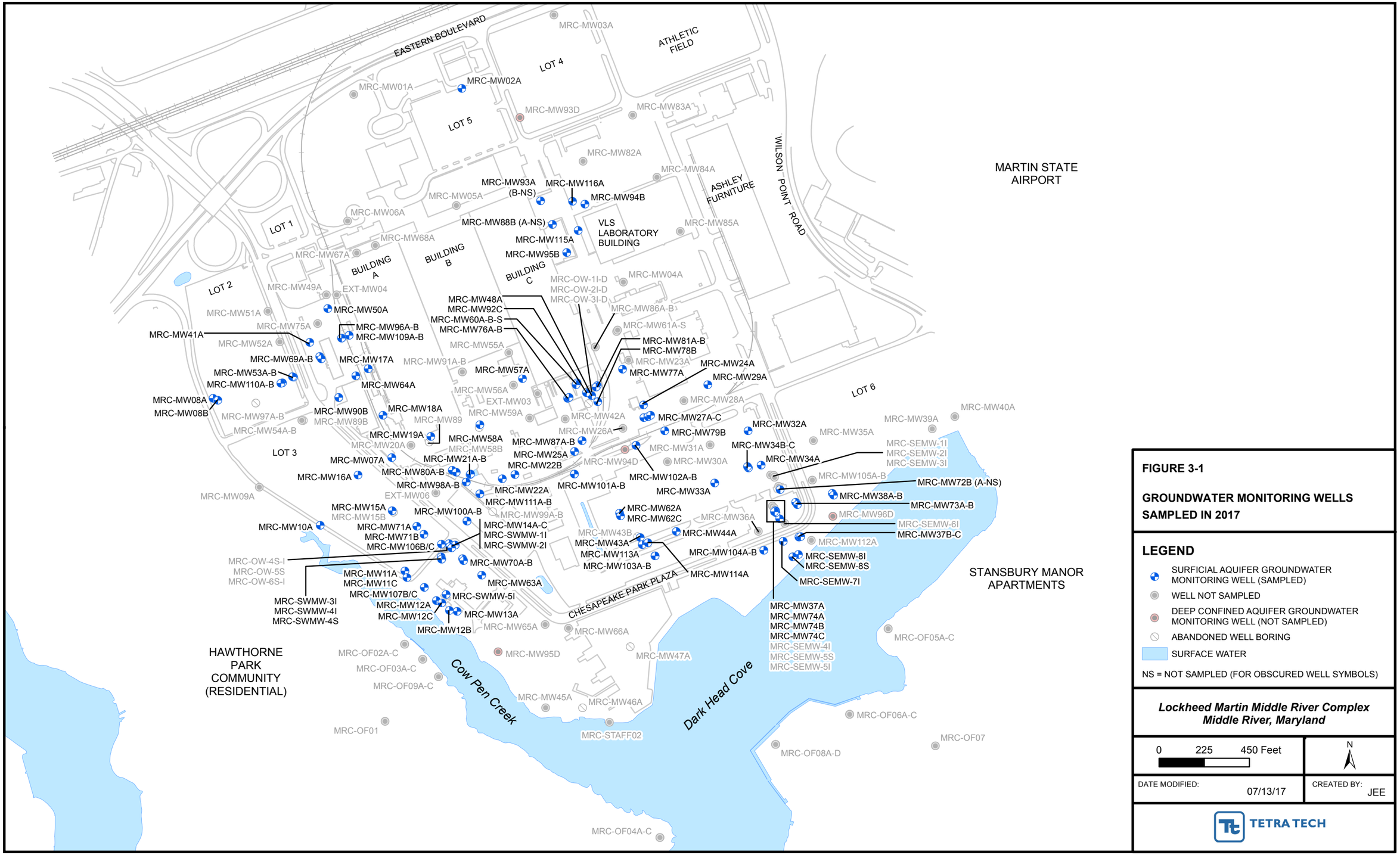


FIGURE 3-1

GROUNDWATER MONITORING WELLS SAMPLED IN 2017

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL (SAMPLED)
- WELL NOT SAMPLED
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL (NOT SAMPLED)
- ABANDONED WELL BORING
- SURFACE WATER

NS = NOT SAMPLED (FOR OBSCURED WELL SYMBOLS)

Lockheed Martin Middle River Complex
Middle River, Maryland

0 225 450 Feet

N

DATE MODIFIED: 07/13/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\middle_river_gw_locs_2017.mxd)
07/13/17 -- JEE

Section 4
Investigation Results

This section presents the results of the 2017 groundwater-elevation data and groundwater sampling and chemical analyses program for the Middle River Complex (MRC). Most well designations begin with the prefix "MRC-," so that prefix is dropped in the discussions below, to improve readability.

4.1 GROUNDWATER-LEVEL DATA

Table 4-1 lists the 2017 groundwater-level measurements and computed groundwater elevations for wells at the MRC. Figures 4-1 and 4-2 show the groundwater-elevation contour maps for the upper/intermediate and lower surficial-aquifer zones, respectively. As presented in Table 4-1, static groundwater levels in the wells were recorded as groundwater depths measured from the top of the well casings. Groundwater depth measurements at or near 0.00 feet indicate groundwater levels at or near the top of the well casing, which is near the ground surface for most wells. A negative value, such as that for MW08B (−3.00), indicates a static water level above the casing, as measured using a temporary well-casing extension. Groundwater levels were converted to elevations based on the well top of casing elevation using North American Vertical Datum of 1988 (NAVD88), and groundwater elevations are discussed using different notation than groundwater depths (i.e., discussed as feet above/below NAVD88).

Groundwater elevations for the surficial aquifer ranged from 1.06 feet above NAVD88 at well MW37B (in the southeastern portion of MRC in Block E) to 30.31 feet above NAVD88 at well MW58A (southeast of Building A). Accounting for well-casing stick-down for flush-mounted well designs, groundwater depths ranged from 3.00 feet above the top of casing (i.e., using a temporary casing-extension and measuring the static-groundwater level) at well MW08B to approximately 21.10 feet below the top of the casing at well MW91B in the surficial aquifer. Shallow groundwater was encountered near the ground surface along the shorelines of Cow Pen Creek and Dark Head

Cove (including wells MW08A, MW08B, MW12C, MW15A, MW39A, MW40A, MW45A, and MW107B/C) and in Block E (including well MW30A).

Figures 4-1 and 4-2 show the groundwater-elevation contour maps for the upper ("A" and "B") and lower ("C") surficial-aquifer wells, respectively. The March 6–7, 2017 groundwater flow for the surficial aquifer is similar to that depicted in previous investigations. However, the 2017 surficial-aquifer groundwater elevations are generally lower than those measured in 2016.

As shown in Figure 4-1, shallow groundwater follows the site topography and flows radially from the hydraulically upgradient northern portion of the MRC (at Eastern Boulevard and immediately south of Buildings A, B, and C) to the southeast, south, and southwest toward Dark Head Cove and Cow Pen Creek. Subsurface sandy zones act as preferential pathways for contaminant transport in groundwater, possibly originating from an upgradient source in the clay-rich materials. Groundwater in the lower surficial-aquifer (Figure 4-2) flows southeast from the area south of Buildings A–C toward Dark Head Cove.

4.2 GROUNDWATER CHEMICAL RESULTS

Validated groundwater-chemical data were used to generate a statistical summary table (Table 4-2) and a "hits" table (Table 4-3) summarizing positive detections of chemical analytes in the 2017 groundwater samples. Appendix E presents all analytical data for 2017, including nondetected chemicals. Groundwater results (excluding nondetected chemicals) for volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), and metals (Table 4-3) are compared against current Maryland Department of the Environment (MDE) groundwater standards (MDE, 2008).

At present, MDE has not established an advisory level or standard for 1,4-dioxane in drinking water or groundwater. Several states (e.g., California, Colorado, Connecticut, Florida, Maine, Massachusetts, Michigan, and North Carolina) have established drinking water standards or action levels for 1,4-dioxane, ranging from California's action level of three micrograms per liter (µg/L) to Michigan's drinking water standard of 85 µg/L (United States Environmental Protection Agency [USEPA], 2006 and 2009, respectively). USEPA has also published a preliminary remedial goal of 6.1 µg/L for 1,4-dioxane in tap water (USEPA, 2006) and a risk-based regional screening-level of 0.46 µg/L for tap water (USEPA, 2017c).

Regional tap-water screening levels are not typically adopted as enforceable standards; therefore, the current advisory level or the standard most protective of human health is used in this report as a comparison criterion to evaluate groundwater concentrations of 1,4-dioxane. The California Department of Health Services advisory level (3 µg/L) is used herein as the groundwater screening level. Gray shading in Table 4-3 indicates results exceeding Maryland groundwater standards (or for 1,4-dioxane, the California action level, because Maryland has no standard). Chemical results for the 2017 groundwater sampling are discussed below according to analyte group (i.e., VOCs, 1,4-dioxane [a semivolatile organic compound (SVOC)], PCBs, etc.).

4.2.1 Volatile Organic Compounds

The 2017 sampling results confirm that the trichloroethene (TCE) and benzene groundwater plumes previously identified in the central and downgradient portions of the MRC are consistent with earlier results showing TCE and benzene in groundwater at concentrations exceeding the Maryland groundwater standard (i.e., 5 µg/L for each constituent). TCE detected west of Building A (centered at MW96A) has been identified as an area where additional investigation is required; this investigation is currently underway. Tetrachloroethene (PCE), chlorobenzene, and several chlorobenzene compounds also exceed MDE standards, and have formed a small plume in the southwestern portion of Lot D (i.e., Block E). TCE and benzene results are discussed herein because they are primary indicators of solvent and petroleum VOC contamination, and most frequently exceed groundwater standards at MRC. Chlorinated VOC-degradation daughter products (e.g., dichloroethenes, vinyl chloride [VC], etc.) or other petroleum-related VOCs (e.g., methyl *tert*-butyl ether [MTBE], benzene isomers, naphthalene, etc.) are typically co-located with these primary VOCs.

Chlorinated volatile organic compounds (cVOCs)—The cVOC results for the 2017 sampling are discussed below; following a general discussion of the overall results, each major area of cVOC contamination will be discussed individually. TCE results are in Table 4-3 and on Figure 4-3. TCE was detected in shallow groundwater at several areas at concentrations ranging from 0.33*J* µg/L at well MW106B/C (in the east/southeast portion of Block G) to 61,000 µg/L at well SEMW-8S (one of the newly installed wells near the southeastern TCE plume, southeast of the 500,000-gallon aboveground water tank). PCE, another chlorinated solvent and degreaser, was detected less frequently (in 8% of samples), at concentrations ranging from 0.31*J* µg/L at well MW22B (southwestern portion of Block I) to 52 µg/L at well MW113A (in the southwestern corner of

Lot D), with an average detected concentration of 9.3 µg/L. In addition to MW113A, PCE also exceeds its groundwater standard (5 µg/L) at well MW21B (8.5*J* µg/L) in the southwestern portion of Block I and at well MW16A (in Block G). TCE is co-located with all PCE detections.

- ***Eastern TCE plumes:*** The largest contiguous area containing samples with the highest concentrations of TCE in groundwater extends southeast from MW60A (1,300 µg/L), MW60B (7,100 µg/L), MW48A (880 µg/L) (south of Building C), MW27B (300 µg/L) (at the southern end of the vertical-launch building), to MW74A–B (near the southeastern portion of Block E), with additional TCE exceedances in new wells SEMW-7I (26,000 µg/L), SEMW-8S (61,000 µg/L), and SEMW-8I (3,600 µg/L) (near Dark Head Cove). Due to the elevated TCE concentrations detected in proximity to Dark Head Cove, the sampling program was expanded in 2017 to include additional groundwater and nearby surface water locations. Maximum detected TCE concentrations of 3,000 µg/L, 38,000 µg/L, and 1,600 µg/L are reported for wells MW72B, MW74B, and MW79B, respectively, which are also within the plume. MW74B and MW72B are in the southeastern portion of the plume, west of the aboveground water tank, whereas well MW79B is in the northern portion of Block E.

    - Elevated TCE concentrations are at the northern (i.e., MW60A and MW60B) and southern (e.g., SEMW-8S, SEMW8I, SEMW-7I, and MW74B) ends of the southeastern plume, but with limited high concentration locations between them, suggesting at least two distinct TCE-source areas. A third area of elevated TCE concentrations is at well MW79B (1,600 µg/L), but this area is considered an extension of the northern end plume, because it is hydraulically downgradient of well MW60B.

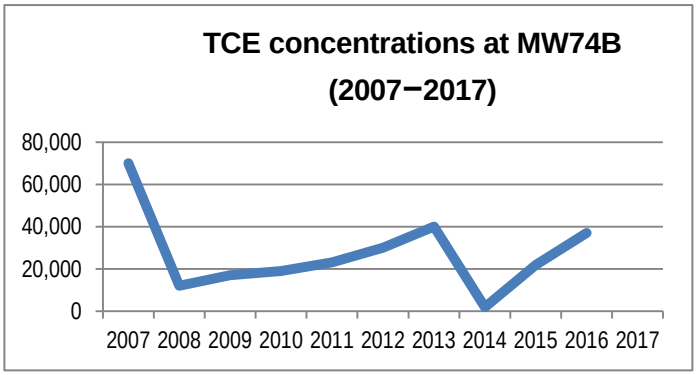
    - Two of the higher concentrations of TCE detected in the intermediate depth of the surficial aquifer were from wells MW60B and MW79B, screened 30 feet below grade. This plume might originate from the southern end of the Building C basement (MW60B), or possibly from spills of material handled near MW60B.

    - VOCs in groundwater at wells MW72B and MW74B (near the southern end of the southeastern TCE plume) are considered to originate, at least in part, from a TCE-containing underground storage tank (UST 2). The leaking tank was discovered in 2013 when soil was remediated for the Block E groundwater treatment area. The tank contained full-strength TCE, and was removed from its location near the former Building D foundation. Soil under the tank had been impacted by the TCE in the tank.

    - The highest TCE concentrations detected during the 2017 sampling round were in the southern portions of the plume, including well MW74B (38,000 µg/L) and new wells SEMW-8S (61,000 µg/L) and SEMW-7I (26,000 µg/L). MW74B is in the southeastern portion of Block E. The new wells are near Dark Head Cove.

    - High TCE concentrations at MW74B over time (shown below) suggest that the well is located near a source of nonaqueous material. Concentrations in the well decreased significantly in 2014, rebounded somewhat in 2015, and increased again in 2016 and 2017 (as shown in the chart below). This area will be addressed in upcoming remedial actions in Block E.

Date	TCE concentration
2007	70,000
2008	12,000
2009	17,000
2010	19,000
2011	23,000
2012	30,000
2013	40,000
2014	1,900
2015	21,800
2016	37,000
2017	38,000



- Residual TCE might be trapped in silt and sand lenses in the clay-rich zones in the southeastern TCE plume source-areas, and/or might be adsorbed to organic material and clays. Dissolved TCE has presumably been released from these source areas to groundwater, and now moves preferentially to the southeast along the more permeable sandy and silty material that extends from well MW48 southeastward to well MW37.

- ***Southwestern TCE plume:*** The second largest contiguous area of TCE in groundwater extends from well MW21B (south of Building A, near recognized environmental condition #9, a former 2,000 gallon waste-oil UST) to MW71B (in Block G). Additional concentrations greater than the screening level were detected near MW12B (near Cow Pen Creek). The current maximum reported concentrations of TCE in this area are in wells MW21B (570 µg/L) and MW12B (270 µg/L) in the northern and southernmost portions of the plume, respectively, and in wells MW98B (350 µg/L) and MW111B (410 µg/L) in the northern portion of the plume. The groundwater remedy (*in situ* enhanced reductive-dechlorination) was completed in this area in 2015 and 2016; the success of this action is indicated by significant reductions in TCE concentrations in MW1B, MW12AA, and MW70B; the table below shows TCE concentrations for main source area wells from 2012–2017.

Trichloroethene[(1)] Concentrations (µg/L) for Wells near Southwestern TCE-Plume Area 2012–2017

Year	MW21B	MW98B	MW111B	MW14B[(2)]	MW12A[(2)]	MW12B	MW70A[(2)]	MW70B[(2)]
2012	400	620	390	3500	1800	320	1.3	40
2013	660	530	460	2300	1500	240	1.8	75
2014	780	470	530	1000	1300	320	1.2	180
2015	708	554	1270	2	838	777	—	1170
2016	790	490	470	0.35*J*	66	510	—	0.33
2017	570	350	410	0.78*J*	—	270	—	3.9

— = not detected
µg/L = microgram(s) per liter
[(1)]The MDE groundwater standard for TCE is 5 µg/L.
[(2)]These wells are within the groundwater remediation area.

- Data generally indicate relatively stable TCE concentrations in the northern portion of the southwestern TCE plume at wells MW21B, MW98B, and MW111B. No TCE-daughter products were detected in these wells, indicating that significant biological degradation of TCE is not occurring. However, 1,1-dichloroethene (1,1-DCE), a known breakdown product of trichloroethanes, was detected in MW98B and MW111B at 170 µg/L. Monitoring will continue in this area; no additional investigation is planned.

- Results for the southwestern portion of the plume show varying trends from 2012–2014 (TCE is decreasing at MW12A, stable at MW12B and MW70A, and increasing at MW70B). However, TCE concentrations decreased rapidly in wells MW14B, MW-12A, and MW70B in response to the remedial action. The 2017 results confirm that TCE has decreased in these wells, and also indicate a decrease in well MW12B. TCE concentrations in 2017 for MW14B (a source-area well with historical maximum VOCs for Block G) and MW70B are below its MDE groundwater standard (5 µg/L).

- These results confirm those found in the remedial action performance monitoring in 2015 and 2016. Data from the second injection completed in 2016 indicate a 99% reduction of VOCs from baseline conditions. In addition to the TCE reductions, total VOC reductions of 96% were observed in the remedial area. These results are in the Block G second-injection-event report (Tetra Tech, 2016d).

- ***Block E southwest:*** A TCE exceedance of the groundwater standard (5 µg/L) was detected at the southwestern portion of Lot D (Block E) at wells MW113A (25 µg/L) and MW114A (6.1 µg/L). As mentioned previously, the maximum detection of PCE (52 µg/L) was also detected at well 113A in 2017 (and also in 2016). These wells have no *cis*-1,2-DCE or vinyl chloride (both are TCE degradation products). This contamination is isolated and does not appear to be associated with a larger plume. Monitoring will continue in this area; no additional investigation is planned.

- ***Other TCE areas****:* TCE exceedances of the groundwater standard (5 µg/L) were also detected at the western portion of the facility and west of Building A in wells MW96A-B (3,300 µg/L and 12*J* µg/L, respectively), MW90B (28 µg/L), MW53A (41 µg/L), MW53B (12 µg/L), MW109B (25 µg/L), MW110A-B (34 µg/L and 39 µg/L), MW50A (7.6 µg/L), and MW17A (7.5 µg/L), and at well MW16A (22 µg/L), which is southwest of Building A in Block G. The maximum TCE concentration (3,300 µg/L at well MW96A) is west of Building A. An ongoing investigation is assessing the possible intrusion into the Building A basement of soil vapor associated with these groundwater concentrations. The investigation is focused on determining if these TCE concentrations west of Building A are related to the groundwater and soil-vapor concentrations under Building A. Additional groundwater investigation is in progress in this area to fully delineate the groundwater plume and eliminate data gaps between MW102A and MW114A.

Benzene and chlorobenzenes—Figure 4-4 presents benzene results for MRC wells. The highest concentrations of benzene would likely be encountered in shallowest groundwater near source areas, because fuels in product form are less dense than water and, when present above the solubility limit, will float on top of the groundwater. Recharge (i.e., infiltrating precipitation) and downward hydraulic gradients might drive dissolved benzene and other petroleum-related contaminants downward in the aquifer as the contaminant travels farther from the source area(s). Benzene biodegrades, so concentrations will diminish over time in the absence of a continuing source. Benzene concentrations at the site are low and sporadic as compared to TCE; the areal extents of benzene plumes are also limited and much smaller. Benzene concentrations have been generally stable over time. Direct sources of this contamination are not definitively known, but are believed to be related to operations in the area of the highest concentrations. The following chart shows benzene concentrations over time (2012–2017) for the main source-area wells.

Benzene Concentrations[(1)] (µg/L) for Source-Area Wells 2012–2017

	West of Building A					Southwestern TCE plume area			VLS building
Year	MW109B	MW17A	MW96B	MW110B	MW53B	MW21B	MW111B	MW14B	MW77A
2012	230	68	520	10	96	19	2.2*J*	50*J*	16
2013	37	110	560	3.3	0.84	23	2.5*J*	36	18
2014	10	160	470	18	13	26	3.2	18	11
2015	123	163	646	47.4	1.2	29.5	7.9	25.4	14
2016	98	42	670	49	130	26	—	5.8	11
2017	34	110	720	42	17	21	—	15	11

— = not detected
µg/L = microgram(s) per liter
[(1)]The MDE groundwater standard for benzene is 5 µg/L.

- The highest exceedances of the benzene groundwater standard (5 µg/L) are west of Building A, at wells MW96B (720 µg/L) and MW109B (34 µg/L). These wells are near underground wastewater lines; other areas with benzene concentrations above the groundwater standard include:
    - well MW17A (110 µg/L), near Building A south of well MW109A/B
    - wells MW53B (17 µg/L) and MW110B (42 µg/L) in parking Lot 2, west of Building A (hydraulically downgradient of wells MW96B/MW17)
    - well MW21B (21 µg/L), southwest of Building A near a former UST and co-located with the southwestern TCE plume
    - well MW14B (15 µg/L), co-located with the southwestern TCE plume
    - well MW77A (11 µg/L), on the east side of the vertical-launch systems (VLS) building in the area of an abandoned-in-place 25,000-gallon fuel oil UST
    - wells SWMW-2I (9.2 µg/L) and SWMW-3I (7 µg/L) near the southeastern portion of Block G

Benzene exceedances have increased from 2016–2017 in two wells west of Building A: MW17A (from 42 µg/L in 2016 to 110 µg/L in 2017) and MW96B (from 670 µg/L in 2016 to 720 µg/L in 2017). However, benzene concentrations decreased in several wells: MW109B (98 µg/L to 34 µg/L), MW110B (49 µg/L to 42 µg/L), and MW53B (130 µg/L to 17 µg/L). Benzene was not detected in MW113A and MW114A in 2017, but had been previously since their installation in 2014. The explanation for nondetect benzene in 2017 is unknown; monitoring of these wells will continue. Benzene concentrations in the southwestern TCE plume also decreased in well MW21B (from 26 µg/L to 21 µg/L), but the concentration in MW14B increased (from 5.8 µg/L in 2016 to 15 µg/L in 2017). In 2017 (and also 2016), the result for MW111B was not detected.

Overall, since 2012, benzene concentrations in the northern area of the southwestern TCE plume have increased slightly near the source area at MW21B, but have stabilized somewhat from 2014–2017. Benzene increased nearly four-fold (from 2.2 µg/L to 7.9 µg/L) in well MW111B from 2012–2015, possibly indicating an expansion of the southeastern plume boundary during this period. However, the 2016 and 2017 results indicate sharp reductions of these boundaries. Benzene was not detected at well MW111B in 2016 or 2017; benzene at MW14B (15 µg/L, above the MDE groundwater standard of 5 µg/L) decreased from 2012, but increased from 2016 to 2017. The source of this benzene might be the wastewater treatment plant that previously operated in this area. Benzene in groundwater at well MW77A (the well with the historically highest benzene

concentration in the VLS area) has steadily decreased from 2013 (18 µg/L) to 2017 (11 µg/L). Benzene at downgradient wells MW27A and MW79B (not shown in the table) have remained stable, with concentrations varying from 1–2.7 µg/L from 2012–2017.

Chlorobenzenes detected in Block E are believed to be associated with transformers formerly in the area, and are generally associated with PCB impacts. As shown in Table 4-3, groundwater concentrations of chlorobenzene isomers exceed groundwater standards at wells MW43A, MW113A, and MW114A in the southwestern portion of Lot D (Block E) (groundwater standards for the chlorobenzene and chlorobenzene compounds range from 1.8–600 µg/L). Chlorobenzene compounds exceeding groundwater standards in one or more wells in the southwestern portion of Lot D include chlorobenzene, 1,2,4-trichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene. These compounds are typically associated with transformer oil, and are detected in wells downgradient of a saturated-soil zone in the southwestern portion of Block E where PCBs have been found. Several cVOCs (PCE, TCE, and 1,2-dichloroethane) also exceed groundwater standards in these wells. Chlorobenzenes are co-located with the PCBs, especially in their Block E source areas, so planning for additional chlorobenzene investigation will be part of PCB remediation at the site. Details are in the *Block E Soil Remedial Investigation Work Plan Addendum 3: Fall 2017 Soil and Groundwater Sampling* (Tetra Tech, 2017).

Natural-attenuation parameters—In addition to the standard analyses for VOCs, the laboratory-analyzed groundwater samples from 14 wells for several natural-attenuation assessment (NAA) parameters include three wells within the Block G southwestern remediation area, three wells within the Block I northern remediation area, one well in the Block E southeastern remediation area, and seven other wells that contain various concentrations of TCE. The NAA analyses include alkalinity, ammonia nitrogen, chloride, nitrate, nitrite, orthophosphate, sulfate, total dissolved solids, total iron, dissolved organic carbon, manganese, and the dissolved gasses ethane, ethene, and methane. NAA parameters were also measured in the field. Field measurements include groundwater pH (a measure of acidity or alkalinity), oxidation-reduction potential (ORP), dissolved oxygen (DO), and temperature.

Pre-remediation evaluations of NAA parameters are in several MRC groundwater monitoring reports (Tetra Tech, 2012b, 2012c, 2012d, and 2013). These results, in general, indicate that some natural conditions support reductive chlorination of VOCs in Block I; these natural conditions have

been supplemented by recent substrate injections. TCE-daughter products were detected in Block I before the substrate injections began, and the low concentrations of daughter products were found throughout the site. In areas of Block G where natural conditions are less conducive for natural attenuation, injections have also allowed significant reductive dechlorination. Areas within Block E are the least conducive for natural attenuation, primarily due to the low pH and high ORP in that area. More detail on the analysis of NAA parameters in the Block I and G remediation areas is in the *Second Injection Completion Report, Blocks G and I* (Tetra Tech, 2016d).

4.2.2 1,4-Dioxane

1,4-Dioxane is a synthetic industrial chemical used primarily as a solvent in paints, varnishes, lacquers, cosmetics, deodorants, semiconductors, electronic components, and detergent preparations. 1,4-Dioxane often has been used with chlorinated solvents as a stabilizer and corrosion inhibitor. 1,4-Dioxane is highly miscible in water, and can be found in groundwater plumes far in advance of any solvents with which it might have entered the subsurface originally. It migrates rapidly in soil and groundwater, but biodegrades slowly.

Recent 1,4-dioxane sampling at the site has focused on the western portion of the site. Historically, 1,4-dioxane has not been detected extensively in the eastern part of the MRC. Sampling in the east was suspended following the 2008 sampling when no samples exceeded the then-action level of 10 µg/L; note that some wells in this area were sampled for 1,4-dioxane after 2008 (when they were newly installed). Samples from some wells were analyzed for 1,4-dioxane in 2015, but because the detection limit was high (10 µg/L), no 1,4-dioxane was detected.

In 2017, several wells in the eastern portion of the site were sampled for 1,4-dioxane using a new screening level (3 µg/L). As shown in Table 4-2 and Figure 4-5, the SVOC 1,4-dioxane was detected in 69 of 79 (87%) of groundwater samples in which it was analyzed for in 2017. These samples were collected from areas of known or suspected 1,4-dioxane contamination, at concentrations ranging from 0.095*J* µg/L (at MW92C) to 180 µg/L (at MW14B).

Concentrations exceeding the screening level of 3 µg/L are shown within contours on Figure 4-5. The contours indicate a continuous plume of 1,4-dioxane running generally east-west from MW16A to MW79B; no wells inside this contour have 1,4-dioxane concentrations less than 3 µg/L, but whether all areas within the contour contain 1,4-dioxane exceedances is unknown. The exceedances

in the center of the site (MW25A, MW101A, and MW101B) appear to be co-located with low levels of chlorinated solvents; a direct source in this area is not known. Additional investigation in these areas is not warranted, because 1,4-dioxane concentrations are low.

The average of all 1,4-dioxane detections is 14.3 µg/L (Table 4-2). The highest concentrations occurred primarily in the upper and intermediate surficial-aquifer wells, with the highest reported concentrations (100–180 µg/L) at wells MW12A, MW12B, MW14B, MW111B, and MW98B, which are within or near areas of the southwestern TCE exceedances in the southwestern portion of the MRC. 1,4-Dioxane concentrations over time have been steady to slightly decreasing in the southwestern TCE plume area and at wells outside of the groundwater remedy areas.

1,4-Dioxane was detected in several wells in the southwestern TCE plume area with 1,4-dioxane extending from well MW19A (to the south of Building A) to wells MW12A-B (adjacent to Cow Pen Creek). These detections might be the result of the waste oil tank formerly located near MW21B and/or the wastewater treatment plant located upgradient of MW12A and MW12B. The highest concentrations stretch in a line from just north of the Tilley Chemical building (140 µg/L and 170 µg/L at wells MW98B and MW111B, respectively) to Cow Pen Creek (150 µg/L and 100 µg/L at wells 12A-B, respectively). The maximum detected 1,4-dioxane concentration was within this area at MW14B (180 µg/L).

Sampling of these wells and the nearby surface water will continue; no additional investigations are required. 1,4-Dioxane was also detected at concentrations exceeding its screening level west of Building A in samples from wells MW69A (6.3 µg/L), MW96A (4 µg/L), MW110A (5.8 µg/L), and MW110B (5.8 µg/L). Likewise, no additional investigations are warranted, due to the low concentrations and the presence of downgradient wells where 1,4-dioxane was less than 3 µg/L near Cow Pen Creek (MW08A and MW08B).

As stated above, several wells in the eastern portion of the site were sampled in 2017 for 1,4-dioxane using the lower detection limit. 1,4-Dioxane was detected at concentrations greater than its screening level (3 µg/L) in the following Block E wells: MW113A (6.9 µg/L), MW79B (14 µg/L), and MW44A (4.7 µg/L). No wells in the southeastern TCE remediation area had 1,2-dioxane exceedances, and only MW89B in Block I had an exceedance (3.9 µg/L). No additional investigation is planned for this area, because detected concentrations of 1,4-dioxane

are low, and 1,4-dioxane was not detected near Dark Head Cove. However, groundwater monitoring in these wells will continue.

4.2.3 Polychlorinated Biphenyls

Groundwater samples for PCB analyses were collected in areas of Block E where elevated PCBs had previously been detected in soil (Figure 4-6). PCBs have been found to be widely distributed in soil along the southern third of Block E, with Aroclor-1260 PCBs detected in the soil in the southwestern and south-central areas of Block E. The source of the Aroclor-1260 contamination in this area appears to be four transformer rooms identified in former Building D. Aroclor-1254 was detected in the soil in the southeastern portion of Block E, around the aboveground water tank. The source of this contamination is unknown, but may be from operations or disposal activities in this area.

Groundwater samples from 19 Block E and Block F wells hydraulically upgradient, cross-gradient, and downgradient of elevated PCBs in soil were analyzed for PCB homologs (Tables 4-2 and 4-3). This sampling sought to detect whether PCBs are being dissolved and transported in groundwater. PCBs are generally immobile, so in some cases the monitoring wells were very close to high-concentration-PCB soil, especially deeper contaminated soils.

Homologs are groups of chlorobiphenyls based on the number and location of chlorine atoms in the PCB molecule. Monochlorobipenyls and dichlorobiphenyls, for example, are lower-chain chlorobiphenyls that contain only one and two chlorine atoms (respectively) in their structures. Lower-chain chlorobiphenyls are lighter, generally more soluble in water (i.e., less stable in the environment), and are considered less toxic than the intermediate- and higher-chain chlorobiphenyls.

Aroclor was the trade name of the commercial PCB mixtures manufactured and sold in the United States. (PCBs were banned in the United States in 1979.) An Aroclor PCB mixture might consist of more than 100 different individual PCB-congeners, although 10–20 might make up more than 50% of the mixture. PCBs were commonly used in electrical transformer and capacitor oils, fluorescent-light ballasts, hydraulic fluids, plasticizers, paints, and might be the byproduct of some manufacturing processes.

PCB detections in groundwater are shown on Figure 4-6 and Tables 4-2 and 4-3. PCB homologs were not detected in upgradient wells MW62A and MW62C. Monochlorobiphenyls were detected in source-area well MW43A (0.26 µg/L) and in downgradient well MW114A (0.01*J* µg/L). Higher-chain dichlorobiphenyls (0.061*J* µg/L), hexachlorobiphenyls (0.023*J* µg/L), tetrachlorobiphenyls (0.05*J* µg/L), pentachlorobiphenyls (0.2 µg/L), and trichlorobiphenyls (0.007*J* µg/L) were also detected in well MW43A in the southwestern portion of Block E, where elevated PCBs have been detected in soil. Total PCB homolog concentrations at MW114A (0.01 µg/L) are less than the PCB groundwater standard, but total PCB homologs at MW43A (0.601 µg/L) exceed the PCB groundwater standard (0.5 µg/L). Results indicate that chlorobiphenyl concentrations below the groundwater standard are migrating in groundwater from well MW43A.

The only other PCB detection was observed in well MW74B, which is in the area of Aroclor-1254 soil exceedances; this well had a detected concentration of 0.014*J* µg/L for pentachlorobiphneyls. The total PCB homolog concentration at MW74B (0.014 µg/L) is less than the PCB groundwater-standard (0.5 µg/L). In support of the PCB soil remedy, planning for additional groundwater PCB investigation in these source areas is currently underway. Details are in the *Block E Soil Remedial Investigation Work Plan Addendum 3: Fall 2017 Soil and Groundwater Sampling* (Tetra Tech, 2017).

4.2.4 Metals

Total metals (from unfiltered samples) concentrations above MDE standards were found throughout the MRC (previous site-wide plots of beryllium, cobalt, and nickel are in Tetra Tech [2009]). Table 4-3 summarizes detections of metals in the groundwater samples. Table 4-4 includes a statistical summary of metals in site groundwater that exceed Maryland groundwater standards.

Concentrations of nine metals exceed Maryland groundwater standards (for drinking water) in one or more samples. Iron (79%), manganese (79%), vanadium (38%), beryllium (33%), and antimony (29%) exceed their standards most frequently, with maximum manganese and iron concentrations more than two orders of magnitude (greater than 100 times) above their respective groundwater standards (Table 4-4). Concentrations of nickel, lead, arsenic, and zinc exceed their standards in 19%, 15%, 8%, and 4% of samples, respectively, and their maximum concentrations (390, 50, 12,

and 16,000 µg/L, respectively) exceed groundwater standards by less than two-times for arsenic, by approximately three times for lead and zinc, and by approximately five times for nickel. Concentrations of the remaining metals did not exceed the standards. Metals do not contribute to site risk, and additional investigation and/or remediation for metals is not planned; monitoring will continue to determine if significant changes in metals concentrations occur at the site.

Table 4-1

Groundwater Levels and Elevations-March 6-7, 2017
Lockheed Martin Middle River Complex, Middle River, Maryland

Well ID	Elevation - top of well casing NAVD 1988 (feet)	Depth to groundwater - below top of casing March 6-7, 2017 (feet)	Groundwater elevation March 6-7, 2017 NAVD 1988 (feet)
EXT-MW04	34.22	19.60	14.62
EXT-MW06	31.63	10.65	20.98
MRC-MW01A	33.63	13.47	20.16
MRC-MW02A	28.41	7.99	20.42
MRC-MW03A	28.17	4.20	23.97
MRC-MW04A	24.43	3.17	21.26
MRC-MW05A	35.15	13.80	21.35
MRC-MW06A	31.82	14.10	17.72
MRC-MW07A	33.39	13.20	20.19
MRC-MW08A	9.70	0.30	9.40
MRC-MW08B	9.57	-3.00	12.57
MRC-MW11A	11.90	2.06	9.84
MRC-MW11C	11.45	1.72	9.73
MRC-MW12A	9.29	3.90	5.39
MRC-MW12B	9.56	2.57	6.99
MRC-MW12C	9.83	0.00	9.83
MRC-MW13A	10.31	2.00	8.31
MRC-MW14A	16.67	4.30	12.37
MRC-MW14B	15.88	5.65	10.23
MRC-MW14C	15.88	5.25	10.63
MRC-MW15A	16.80	1.00	15.80
MRC-MW16A	17.20	2.95	14.25
MRC-MW17A	32.59	8.00	24.59
MRC-MW18A	32.46	5.46	27.00
MRC-MW19A	36.36	7.80	28.56
MRC-MW20A	36.18	11.00	25.18
MRC-MW21A	32.70	3.60	29.10
MRC-MW21B	32.91	10.95	21.96
MRC-MW22A	31.58	14.07	17.51
MRC-MW22B	31.04	12.30	18.74
MRC-MW24A	20.77	7.85	12.92
MRC-MW25A	26.71	12.90	13.81
MRC-MW26A	22.90	10.21	12.69
MRC-MW27A	20.76	10.25	10.51
MRC-MW27B	20.90	11.90	9.00

Table 4-1

Groundwater Levels and Elevations-March 6-7, 2017
Lockheed Martin Middle River Complex, Middle River, Maryland

Well ID	Elevation - top of well casing NAVD 1988 (feet)	Depth to groundwater - below top of casing March 6-7, 2017 (feet)	Groundwater elevation March 6-7, 2017 NAVD 1988 (feet)
MRC-MW27C	21.35	13.85	7.50
MRC-MW28A	17.45	7.65	9.80
MRC-MW29A	13.97	5.52	8.45
MRC-MW30A	11.14	0.95	10.19
MRC-MW31A	11.00	4.07	6.93
MRC-MW32A	11.01	4.70	6.31
MRC-MW33A	11.08	3.35	7.73
MRC-MW34A	10.88	5.08	5.80
MRC-MW34B	10.84	5.00	5.84
MRC-MW34C	10.80	4.25	6.55
MRC-MW35A	8.39	4.50	3.89
MRC-MW36A	9.72	6.70	3.02
MRC-MW37A	10.50	7.47	3.03
MRC-MW37B	7.36	6.30	1.06
MRC-MW37C	7.45	6.04	1.41
MRC-MW38A	8.07	6.31	1.76
MRC-MW38B	8.18	6.27	1.91
MRC-MW39A	4.78	1.35	3.43
MRC-MW40A	4.50	0.00	4.50
MRC-MW41A	27.52	10.95	16.57
MRC-MW42A	28.21	11.86	16.35
MRC-MW43A	11.01	1.50	9.51
MRC-MW44A	10.64	1.75	8.89
MRC-MW45A	4.64	1.35	3.29
MRC-MW48A	24.76	8.00	16.76
MRC-MW49A	31.47	13.45	18.02
MRC-MW50A	30.15	14.92	15.23
MRC-MW51A	21.88	5.40	16.48
MRC-MW52A	20.32	6.50	13.82
MRC-MW53A	18.54	5.27	13.27
MRC-MW53B	18.41	4.75	13.66
MRC-MW55A	36.56	13.00	23.56
MRC-MW56A	35.94	6.81	29.13
MRC-MW57A	36.46	9.47	26.99
MRC-MW58A	35.03	4.72	30.31

Table 4-1

Groundwater Levels and Elevations-March 6-7, 2017
Lockheed Martin Middle River Complex, Middle River, Maryland

Well ID	Elevation - top of well casing NAVD 1988 (feet)	Depth to groundwater - below top of casing March 6-7, 2017 (feet)	Groundwater elevation March 6-7, 2017 NAVD 1988 (feet)
MRC-MW59A	34.11	10.38	23.73
MRC-MW60A	31.26	14.90	16.36
MRC-MW60B	31.21	13.95	17.26
MRC-MW61A	24.16	6.70	17.46
MRC-MW62A	10.62	1.52	9.10
MRC-MW62C	10.89	3.45	7.44
MRC-MW63A	16.20	4.60	11.60
MRC-MW64A	30.88	8.37	22.51
MRC-MW65A	14.76	5.92	8.84
MRC-MW66A	14.99	7.75	7.24
MRC-MW67A	36.67	13.02	23.65
MRC-MW68A	36.51	13.05	23.46
MRC-MW69A	27.63	11.37	16.26
MRC-MW69B	27.85	10.75	17.10
MRC-MW70A	14.69	2.45	12.24
MRC-MW70B	14.44	3.60	10.84
MRC-MW71A	16.90	2.42	14.48
MRC-MW71B	16.94	4.45	12.49
MRC-MW72B	10.79	6.03	4.76
MRC-MW73A	10.46	7.27	3.19
MRC-MW73B	10.28	6.97	3.31
MRC-MW74A	11.18	7.90	3.28
MRC-MW74C	11.05	9.25	1.80
MRC-MW75A	29.00	9.30	19.70
MRC-MW76A	28.42	11.80	16.62
MRC-MW76B	28.24	11.38	16.86
MRC-MW77A	23.06	7.80	15.26
MRC-MW78B	24.30	10.76	13.54
MRC-MW79B	19.18	10.22	8.96
MRC-MW80A	32.82	7.05	25.77
MRC-MW80B	32.66	8.21	24.45
MRC-MW81A	27.34	11.50	15.84
MRC-MW81B	25.96	9.80	16.16
MRC-MW86A	23.62	5.80	17.82
MRC-MW86B	23.72	5.77	17.95

Table 4-1

Groundwater Levels and Elevations-March 6-7, 2017
Lockheed Martin Middle River Complex, Middle River, Maryland

Well ID	Elevation - top of well casing NAVD 1988 (feet)	Depth to groundwater - below top of casing March 6-7, 2017 (feet)	Groundwater elevation March 6-7, 2017 NAVD 1988 (feet)
MRC-MW87A	26.57	12.40	14.17
MRC-MW87B	26.54	12.47	14.07
MRC-MW88A	24.47	4.95	19.52
MRC-MW88B	24.40	4.95	19.45
MRC-MW90B	21.67	7.55	14.12
MRC-MW91A	36.85	9.55	27.30
MRC-MW91B	36.54	21.10	15.44
MRC-MW92C	25.31	11.15	14.16
MRC-MW93A	32.05	10.20	21.85
MRC-MW93B	31.97	12.31	19.66
MRC-MW94B	25.28	5.43	19.85
MRC-MW95B	24.04	4.85	19.19
MRC-MW96A	30.87	13.20	17.67
MRC-MW96B	30.85	16.30	14.55
MRC-MW98A	31.88	5.45	26.43
MRC-MW98B	31.93	13.75	18.18
MRC-MW100A	27.82	9.79	18.03
MRC-MW100B	27.80	10.25	17.55
MRC-MW101A	27.29	15.86	11.43
MRC-MW101B	27.25	14.81	12.44
MRC-MW102A	21.63	10.56	11.07
MRC-MW102B	21.58	12.07	9.51
MRC-MW103A	12.93	4.25	8.68
MRC-MW103B	12.99	6.05	6.94
MRC-MW104A	8.19	6.26	1.93
MRC-MW104B	8.23	6.72	1.51
MRC-MW105A	9.66	6.60	3.06
MRC-MW105B	9.64	6.05	3.59
MRC-MW106B/C	16.20	4.10	12.10
MRC-MW107B/C	10.33	0.00	10.33
MRC-MW109A	31.22	13.77	17.45
MRC-MW109B	31.24	16.50	14.74
MRC-MW110A	16.21	3.50	12.71
MRC-MW110B	16.09	7.45	8.64
MRC-MW111A	31.41	9.92	21.49

Table 4-1

Groundwater Levels and Elevations-March 6-7, 2017
Lockheed Martin Middle River Complex, Middle River, Maryland

Well ID	Elevation - top of well casing NAVD 1988 (feet)	Depth to groundwater - below top of casing March 6-7, 2017 (feet)	Groundwater elevation March 6-7, 2017 NAVD 1988 (feet)
MRC-MW111B	31.42	14.74	16.68
MRC-MW113A	11.89	2.90	8.99
MRC-MW114A	11.79	3.25	8.54
MRC-MW115A	26.83	7.26	19.57
MRC-MW116A	25.86	6.15	19.71
MRC-SEMW-7I	NA	NM	NA
MRC-SEMW-8S	NA	NM	NA
MRC-SEMW-8I	NA	4.52	NA
MRC-SWMW-1I	NA	5.10	NA
MRC-SWMW-2I	NA	4.60	NA
MRC-SWMW-3I	NA	2.19	NA
MRC-SWMW-4S	NA	1.50	NA
MRC-SWMW-4I	NA	2.20	NA
MRC-SWMW-5I	NA	3.45	NA

MRC - Middle River Complex
MW - monitoring well
NA - not available
NAVD - North American Vertical Datum
NM - not measured
A - upper surficial aquifer
B - intermediate surficial aquifer
C - lower surficial aquifer

Table 4-2

Statistical Summary of Analytes Detected in Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

Parameter	March-April 2017 Groundwater Samples										
	Frequency of detection	Percent frequency of detection	Minimum detect concentration	Maximum detect concentration	Location of maximum detected concentration	Average of detected concentrations	Average of All Results	Minimum non-detect concentration	Maximum non-detect concentration	Standard deviation	Site tax block
Volatile Organics (ug/L)											
1,1,1-TRICHLOROETHANE	2/103	2	1 J	14	MRC-MW98B	7.5	7.8	0.23 UJ	580 U	38.2	BLOCK I
1,1-DICHLOROETHANE	38/103	37	0.27 J	74	MRC-MW98B	7.4	10.9	0.25 U	630 U	42.0	BLOCK I
1,1-DICHLOROETHENE	33/103	32	0.27 J	170	MRC-MW98B, MRC-MW111B	27.6	17.6	0.27 U	680 U	53.1	BLOCK I
1,2,3-TRICHLOROBENZENE	4/15	27	1.4	1300	MRC-MW43A	364	134	0.35 U	700 U	337	BLOCK E
1,2,4-TRICHLOROBENZENE	7/109	6	0.58 J	5300	MRC-MW43A	838	62.2	0.27 UJ	680 U	510	BLOCK E
1,2-DICHLOROBENZENE	4/109	4	0.58 J	310	MRC-MW43A	86.4	11.2	0.26 U	650 U	50.8	BLOCK E
1,2-DICHLOROETHANE	8/103	8	0.34 J	400	MRC-MW114A	50.7	13.8	0.3 U	750 U	62.7	BLOCK E
1,2-DICHLOROPROPANE	1/103	1	4.2 J	4.2 J	MRC-MW114A	4.2	9.9	0.3 U	750 U	49.5	BLOCK E
1,3-DICHLOROBENZENE	2/109	2	7.2 J	32	MRC-MW113A	19.6	10.6	0.32 U	800 U	51.5	BLOCK E
1,4-DICHLOROBENZENE	4/109	4	0.94 J	350	MRC-MW43A	113	11.3	0.23 U	580 U	49.8	BLOCK E
2-BUTANONE	4/103	4	2.2 J	29	MRC-SWMW-5I	12.4	33.9	1 U	2600 U	169	BLOCK G
4-METHYL-2-PENTANONE	2/103	2	1.1 J	1.6 J	MRC-SWMW-4I	1.4	23.4	0.71 U	1800 U	118	BLOCK G
ACETONE	14/103	14	1.8 J	25	MRC-MW87B	5.3	58.6	1.8 UJ	4400 U	290	BLOCK I
BENZENE	18/103	17	0.71 J	720	MRC-MW96B	55.8	18.9	0.28 U	700 U	84.3	BLOCK I
CARBON DISULFIDE	1/103	1	0.42	0.42 J	MRC-MW93A	0.30	11.2	0.34 UJ	850 U	56.1	BLOCK I
CARBON TETRACHLORIDE	1/103	1	3.9	3.9	MRC-MW34B	3.9	11.6	0.35 UJ	880 U	58.0	BLOCK E
CHLOROBENZENE	3/109	3	0.5 J	120	MRC-MW114A	58.2	11.9	0.32 U	800 U	52.7	BLOCK E
CHLOROETHANE	8/103	8	0.69 J	19	MRC-MW14B, MRC-MW98B	10.3	14.2	0.41 UJ	1000 U	66.8	BLOCK G
CHLOROFORM	4/103	4	0.6 J	5.9	MRC-MW38A	2.1	10.3	0.31 U	780 U	51.4	BLOCK D
CIS-1,2-DICHLOROETHENE	55/103	53	0.31 J	29000	MRC-MW96A	651	355	0.3 U	750 U	2860	BLOCK I
CYCLOHEXANE	5/103	5	0.72 J	32	MRC-MW17A	9.2	14.9	0.44 UJ	1100 U	72.6	BLOCK I
DICHLORODIFLUOROMETHANE	1/103	1	0.91 J	0.91 J	MRC-MW02A	0.91	16.7	0.5 UJ	1300 U	84.4	BLOCK A
ETHYLBENZENE	3/103	3	1.6 J	44	MRC-MW17A	17.3	9.0	0.26 U	650 U	43.1	BLOCK I
ISOPROPYLBENZENE	7/103	7	0.29 J	12 J	MRC-MW21B	3.9	7.2	0.21 U	530 U	34.9	BLOCK I
METHYL CYCLOHEXANE	2/103	2	0.47	13 J	MRC-MW17A	6.7	14.8	0.45 UJ	1100 U	73.4	BLOCK I
METHYL TERT-BUTYL ETHER	10/103	10	1.2	74	MRC-MW77A	16.5	10.5	0.27 U	680 U	45.3	BLOCK I
TETRACHLOROETHENE	8/103	8	0.31 J	52	MRC-MW113A	9.3	10.5	0.3 U	750 U	49.7	BLOCK E
TOLUENE	2/103	2	0.27 J	7.9	MRC-MW17A	4.1	7.7	0.23 U	580 U	38.2	BLOCK I
TOTAL XYLENES	5/103	5	1.1 J	110	MRC-MW96B	26.1	9.1	0.24 U	600 U	40.9	BLOCK I
TRANS-1,2-DICHLOROETHENE	20/103	19	0.29 J	19 J	MRC-MW48A	3.4	10.0	0.29 U	730 U	48.1	BLOCK I
TRICHLOROETHENE	70/103	68	0.33	61000	MRC-SEMW-8S	2130	1450	0.33 U	0.33 U	7480	BLOCK F
TRICHLOROFLUOROMETHANE	4/103	4	1.2	810	MRC-MW113A	249	26.3	0.5 UJ	1300 U	116	BLOCK E
VINYL CHLORIDE	25/103	24	0.56 J	220	MRC-MW81B	25.1	20.4	0.45 U	1100 U	78.3	BLOCK I
Volatile Gases (ug/L)											
ETHANE	6/15	40	0.33 J	24	MRC-MW81B	11.9	4.8	0.14 U	0.14 U	8.3	BLOCK I
ETHENE	7/15	47	0.27 J	170	MRC-MW81B	34.5	16.1	0.13 U	0.13 U	44.4	BLOCK I
METHANE	14/15	93	0.08 J	8000	MRC-MW12A	1490	1390	0.08 U	0.08 U	2430	BLOCK G
Semivolatile Organics (ug/L)											
1,4-DIOXANE	69/79	87	0.095 J	180	MRC-MW14B	16.4	14.3	0.057 U	0.057 U	38.0	BLOCK G

Table 4-2

Statistical Summary of Analytes Detected in Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

Parameter	March-April 2017 Groundwater Samples										
	Frequency of detection	Percent frequency of detection	Minimum detect concentration	Maximum detect concentration	Location of maximum detected concentration	Average of detected concentrations	Average of All Results	Minimum non-detect concentration	Maximum non-detect concentration	Standard deviation	Site tax block
Polychlorinated Biphenyls (ug/L)											
DICHLOROBIPHENYLS	1/19	5	0.061 J	0.061 J	MRC-MW43A	0.061	0.0059	0.0052 U	0.011 U	0.013	BLOCK E
HEXACHLOROBIPHENYLS	1/19	5	0.023 J	0.023 J	MRC-MW43A	0.023	0.0087	0.014 U	0.03 U	0.0039	BLOCK E
MONOCHLOROBIPHENYLS	2/19	11	0.01 J	0.26	MRC-MW43A	0.14	0.017	0.0054 U	0.011 U	0.059	BLOCK E
PENTACHLOROBIPHENYLS	2/19	11	0.014 J	0.2	MRC-MW43A	0.11	0.018	0.013 U	0.028 U	0.044	BLOCK E
TETRACHLOROBIPHENYLS	1/19	5	0.05 J	0.05 J	MRC-MW43A	0.050	0.0092	0.012 U	0.026 U	0.010	BLOCK E
TRICHLOROBIPHENYLS	1/19	5	0.007 J	0.007 J	MRC-MW43A	0.0070	0.0036	0.0062 U	0.013 U	0.0011	BLOCK E
Inorganics (ug/L)											
ANTIMONY	7/31	23	0.74 J	8.2	MRC-MW71A	4.2	1.2	0.27 U	1.9 U	2.1	BLOCK G
ARSENIC	26/31	84	0.28	12	MRC-MW12A	2.5	2.1	0.35 UJ	0.35 UJ	2.9	BLOCK G
BARIUM	31/31	100	8.5	400	MRC-MW16A	109	109	--	--	85.0	BLOCK G
BERYLLIUM	9/31	29	0.44 J	15 J	MRC-SEMW-8S	5.1	1.7	0.4 UJ	0.77 U	3.5	BLOCK F
CADMIUM	2/31	6	0.56 J	1.8	MRC-MW16A	1.2	0.23	0.31 UJ	0.94 U	0.30	BLOCK G
CALCIUM	15/15	100	1800 J	120000	MRC-MW37A	20400	20400	--	--	28800	BLOCK E
CHROMIUM	27/31	87	0.29 J	82	MRC-MW12A	5.3	4.6	0.26 U	1.8 U	14.8	BLOCK G
COBALT	31/31	100	1.6 J	400	MRC-MW16A	41.5	41.5	--	--	79.4	BLOCK G
COPPER	15/31	48	0.94 J	52	MRC-MW12A	9.8	5.1	0.36 U	9.2 U	10.3	BLOCK G
IRON	14/14	100	65 J	180000	MRC-MW12A	41000	41000	--	--	55600	BLOCK G
LEAD	13/31	42	0.37 J	50	MRC-MW12A	7.7	3.4	0.19 U	0.91 U	9.8	BLOCK G
MAGNESIUM	15/15	100	1000 J	37000	MRC-MW24A, MRC-MW27A	12700	12700	--	--	11400	BLOCK I
MANGANESE	14/14	100	15	43000	MRC-MW27A	7450	7450	--	--	13200	BLOCK I
MERCURY	1/27	4	0.17 J	0.17 J	MRC-MW12A	0.17	0.069	0.13 UJ	0.13 UJ	0.020	BLOCK G
MOLYBDENUM	3/31	10	0.54 J	1.2 J	MRC-MW14B	0.78	0.55	0.51 UJ	3.4 U	0.44	BLOCK G
NICKEL	31/31	100	0.65 J	390	MRC-MW16A	50.1	50.1	--	--	86.2	BLOCK G
POTASSIUM	13/15	87	330 J	9900	MRC-MW12A	3920	3580	2600 U	2900 U	2730	BLOCK G
SELENIUM	15/31	48	0.37	22 J	MRC-SEMW-8S	3.2	1.8	0.48 UJ	3.4 U	4.0	BLOCK F
SILICON DIOXIDE	15/15	100	3600 J	92000	MRC-MW12A	16200	16200	--	--	21300	BLOCK G
SILVER	2/31	6	0.17 J	0.35 J	MRC-MW71A	0.26	0.037	0.03 UJ	0.28 U	0.068	BLOCK G
SODIUM	15/15	100	8300	350000	MRC-MW27A	91000	91000	--	--	100000	BLOCK I
THALLIUM	2/31	6	0.21 J	0.36 J	MRC-MW12A	0.29	0.15	0.28 UJ	0.28 UJ	0.041	BLOCK G
VANADIUM	16/31	52	0.455	120	MRC-MW12A	12.7	6.8	0.54 UJ	4.5 U	21.9	BLOCK G
ZINC	23/31	74	6.5 J	16000	MRC-MW107B/C	818	608	6.2 U	15 U	2860	BLOCK G
Miscellaneous Parameters (mg/L)											
ALKALINITY	13/15	87	5.3	600	MRC-MW14B	101	87.6	1.9 U	1.9 U	150	BLOCK G
AMMONIA	2/14	14	1.7 J	2.5	MRC-MW27A	2.1	0.67	0.87 U	0.87 U	0.62	BLOCK I
CHLORIDE	15/15	100	13	880	MRC-MW27A	166	166	--	--	240	BLOCK I
DISSOLVED ORGANIC CARBON	14/15	93	0.27 J	15	MRC-MW14B	3.6	3.4	0.42 U	0.42 U	4.9	BLOCK G
NITRATE-N	8/15	53	0.046 J	2.5	MRC-MW37A	0.64	0.39	0.035 U	0.7 U	0.66	BLOCK E
NITRITE-N	1/15	7	0.11	0.11	MRC-MW72B	0.11	0.066	0.038 U	0.76 U	0.10	BLOCK E
ORTHOPHOSPHATE-P	12/15	80	0.014 J	0.097 J	MRC-MW81B	0.045	0.048	0.05 U	0.26 U	0.034	BLOCK I
SULFATE	13/15	87	1.3	360	MRC-MW37A	35.9	31.2	0.13 U	0.65 U	91.3	BLOCK E
TOTAL DISSOLVED SOLIDS	15/15	100	22	1600	MRC-MW27A	450	450	--	--	418	BLOCK I

Table 4-2

Statistical Summary of Analytes Detected in Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

Parameter	March-April 2017 Groundwater Samples										
	Frequency of detection	Percent frequency of detection	Minimum detect concentration	Maximum detect concentration	Location of maximum detected concentration	Average of detected concentrations	Average of All Results	Minimum non-detect concentration	Maximum non-detect concentration	Standard deviation	Site tax block
Miscellaneous Parameters (µg/L)											
HEXAVALENT CHROMIUM	1/8	13	0.088 J	0.088 J	MRC-SEMW-7I	0.088	0.032	0.047 U	0.047 U	0.023	BLOCK F

-- not applicable because analyte was detected in all samples.
J - estimated value
µg/L - micrograms per liter
mg/L - milligrams per liter
U - not detected (concentration shown is detection limit)
UJ - analyte not detected, detection limit may be inacurate or imprecise

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW02A	MRC-MW07A	MRC-MW08A	MRC-MW08B			MRC-MW10A
SAMPLE ID	Groundwater	MRC-MW02A-041417	MRC-MW07A-040517	MRC-MW08A-041417	MRC-MW08B-042117	MRC-MW08B-	MRC-MW08B-042117-	MRC-MW10A-041417
SAMPLE DATE	Standard[1,2]	20170414	20170405	20170414	20170421	20170421	20170421	20170414
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	NA	0.23 U	0.23 U	0.23 U	NA	0.23 U
1,1-DICHLOROETHANE	**90**	0.25 U	NA	0.25 U	0.25 U	0.25 U	NA	0.25 U
1,1-DICHLOROETHENE	**7**	0.27 U	NA	0.27 U	0.27 U	0.27 U	NA	0.27 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	NA	0.27 U	0.27 U	0.27 U	NA	0.27 U
1,2-DICHLOROBENZENE	**600**	0.26 U	NA	0.26 U	0.26 U	0.26 U	NA	0.26 U
1,2-DICHLOROETHANE	**5**	0.3 U	NA	0.3 U	0.3 U	0.3 U	NA	0.3 U
1,2-DICHLOROPROPANE	**5**	0.3 U	NA	0.3 U	0.3 U	0.3 U	NA	0.3 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	NA	0.32 U	0.32 U	0.32 U	NA	0.32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	NA	0.23 U	0.23 U	0.23 U	NA	0.23 U
2-BUTANONE	**700**	1 U	NA	1 U	1 U	1 U	NA	1 U
4-METHYL-2-PENTANONE	**630**	0.71 U	NA	0.71 U	0.71 U	0.71 U	NA	0.71 U
ACETONE	**550**	1.8 U	NA	1.8 U	1.8 U	1.8 U	NA	2.5 J
BENZENE	**5**	0.28 U	NA	0.28 U	0.28 U	0.28 U	NA	0.28 U
CARBON DISULFIDE	**100**	0.34 U	NA	0.34 U	0.34 U	0.34 U	NA	0.34 U
CARBON TETRACHLORIDE	**5**	0.35 U	NA	0.35 U	0.35 U	0.35 U	NA	0.35 U
CHLOROBENZENE	**100**	0.32 U	NA	0.32 U	0.32 U	0.32 U	NA	0.32 U
CHLOROETHANE	**3.6**	0.41 U	NA	0.41 U	0.41 U	0.41 U	NA	0.41 U
CHLOROFORM	**80**	0.31 U	NA	0.31 U	0.31 U	0.31 U	NA	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	0.3 U	NA	0.3 U	0.3 U	0.3 U	NA	0.3 U
CYCLOHEXANE	**NC**	0.44 U	NA	0.44 U	0.44 U	0.44 U	NA	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	0.91 J	NA	0.5 U	0.5 UJ	0.5 UJ	NA	0.5 U
ETHYLBENZENE	**700**	0.26 U	NA	0.26 U	0.26 U	0.26 U	NA	0.26 U
ISOPROPYLBENZENE	**66**	0.21 U	NA	0.21 U	0.21 U	0.21 U	NA	0.21 U
METHYL CYCLOHEXANE	**NC**	0.45 U	NA	0.45 U	0.45 U	0.45 U	NA	0.45 U
METHYL TERT-BUTYL ETHER	**20**	0.27 U	NA	0.27 U	0.27 U	0.27 U	NA	0.27 U
TETRACHLOROETHENE	**5**	0.3 U	NA	0.3 U	0.3 U	0.3 U	NA	0.3 U
TOLUENE	**1000**	0.23 U	NA	0.23 U	0.23 U	0.23 U	NA	0.23 U
TOTAL XYLENES	**10000**	0.24 U	NA	0.24 U	0.24 U	0.24 U	NA	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	NA	0.29 U	0.29 U	0.29 U	NA	0.29 U
TRICHLOROETHENE	**5**	0.33 U	NA	0.33 U	0.34 J	0.34 J	NA	0.33 U
TRICHLOROFLUOROMETHANE	**NC**	3.6	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U
VINYL CHLORIDE	**2**	0.45 U	NA	0.45 U	0.45 U	0.45 U	NA	0.45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	NA	**4.3**	0.36	0.17 J	0.15	0.13 J	0.95
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	NA	NA	NA	NA	NA	NA	NA
ARSENIC	**10**	NA	NA	NA	NA	NA	NA	NA
BARIUM	**2000**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW02A	MRC-MW07A	MRC-MW08A	MRC-MW08B			MRC-MW10A
SAMPLE ID	Groundwater	MRC-MW02A-041417	MRC-MW07A-040517	MRC-MW08A-041417	MRC-MW08B-042117	MRC-MW08B-	MRC-MW08B-042117-	MRC-MW10A-041417
SAMPLE DATE	Standard[1,2]	20170414	20170405	20170414	20170421	20170421	20170421	20170414
BERYLLIUM	**4**	NA	NA	NA	NA	NA	NA	NA
CADMIUM	**5**	NA	NA	NA	NA	NA	NA	NA
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA
COBALT	**NC**	NA	NA	NA	NA	NA	NA	NA
COPPER	**1300**	NA	NA	NA	NA	NA	NA	NA
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	NA	NA	NA	NA	NA	NA	NA
NICKEL	**73**	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	NA	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
SILVER	**100**	NA	NA	NA	NA	NA	NA	NA
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	NA	NA	NA	NA	NA	NA	NA
VANADIUM	**3.7**	NA	NA	NA	NA	NA	NA	NA
ZINC	**5000**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	0.047 UJ	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW11A	MRC-MW11C			MRC-MW12A	MRC-MW12B	MRC-MW12C
SAMPLE ID	Groundwater	MRC-MW11A-040717	MRC-MW11C-041117	MRC-MW11C-	MRC-MW11C-041117-	MRC-MW12A-041117	MRC-MW12B-041217	MRC-MW12C-041217
SAMPLE DATE	Standard[1,2]	20170407	20170411	20170411	20170411	20170411	20170412	20170412
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	0.23 U	0.23 U	NA	0.23 U	2.3 U	0.23 U
1,1-DICHLOROETHANE	**90**	0.25 U	0.25 U	0.25 U	NA	3.4	9.9 J	0.25 U
1,1-DICHLOROETHENE	**7**	0.27 U	0.27 U	0.27 U	NA	3.8	**76**	0.27 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	0.27 U	NA	0.27 U	4 J	0.27 U
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	0.26 U	NA	0.26 U	2.6 U	0.26 U
1,2-DICHLOROETHANE	**5**	0.3 U	0.3 U	0.3 U	NA	2	3 U	0.3 U
1,2-DICHLOROPROPANE	**5**	0.3 U	0.3 U	0.3 U	NA	0.3 U	3 U	0.3 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	0.32 U	NA	0.32 U	3.2 U	0.32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	0.23 U	NA	0.23 U	2.3 U	0.23 U
2-BUTANONE	**700**	1 U	1 U	1 U	NA	2.2 J	10 U	1 U
4-METHYL-2-PENTANONE	**630**	0.71 U	0.71 U	0.71 U	NA	0.71 U	7.1 U	0.71 U
ACETONE	**550**	1.8 U	1.8 U	1.8 U	NA	2.8 J	18 UJ	1.8 U
BENZENE	**5**	0.28 U	0.28 U	0.28 U	NA	4.8	2.8 U	0.28 U
CARBON DISULFIDE	**100**	0.34 UJ	0.34 UJ	0.34 UJ	NA	0.34 UJ	3.4 U	0.34 UJ
CARBON TETRACHLORIDE	**5**	0.35 U	0.35 U	0.35 U	NA	0.35 U	3.5 U	0.35 U
CHLOROBENZENE	**100**	0.32 U	0.32 U	0.32 U	NA	0.32 U	3.2 U	0.32 U
CHLOROETHANE	**3.6**	0.41 U	0.41 U	0.41 U	NA	**9.5**	4.1 U	0.41 U
CHLOROFORM	**80**	0.31 U	0.31 U	0.31 U	NA	0.31 U	3.1 U	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	0.3 U	0.3 U	0.3 U	NA	3.8	**170**	0.3 U
CYCLOHEXANE	**NC**	0.44 U	0.44 U	0.44 U	NA	0.44 U	4.4 U	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	NA	0.5 U	5 U	0.5 U
ETHYLBENZENE	**700**	0.26 U	0.26 U	0.26 U	NA	0.26 U	2.6 U	0.26 U
ISOPROPYLBENZENE	**66**	0.21 U	0.21 U	0.21 U	NA	0.21 U	2.1 U	0.21 U
METHYL CYCLOHEXANE	**NC**	0.45 UJ	0.45 U	0.45 U	NA	0.45 U	4.5 U	0.45 U
METHYL TERT-BUTYL ETHER	**20**	0.27 U	0.27 U	0.27 U	NA	0.27 U	2.7 U	0.27 U
TETRACHLOROETHENE	**5**	0.3 U	0.3 U	0.3 U	NA	0.3 U	3 U	0.3 U
TOLUENE	**1000**	0.23 U	0.23 U	0.23 U	NA	0.23 U	2.3 U	0.23 U
TOTAL XYLENES	**10000**	0.24 U	0.24 U	0.24 U	NA	0.24 U	2.4 U	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	0.29 U	0.29 U	NA	0.51 J	2.9 U	0.29 U
TRICHLOROETHENE	**5**	0.33 U	0.33 U	0.33 U	NA	0.33 U	**270**	0.33 U
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	NA	0.5 U	5 U	0.5 U
VINYL CHLORIDE	**2**	0.45 U	0.45 U	0.45 U	NA	**8.3**	4.5 U	0.45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	13	0.14 U	NA
ETHENE	**NC**	NA	NA	NA	NA	17	0.27 J	NA
METHANE	**NC**	NA	NA	NA	NA	8000	32	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	0.14 J	0.057 U	0.057 U	NA	**150**	**100**	0.057 U
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	**8**	0.99 U	0.72 U	0.45 U	4.9	0.68 U	0.96 U
ARSENIC	**10**	2.3 J	0.38 J	0.28	0.35 U	**12**	0.69 J	0.44 J
BARIUM	**2000**	40	11	11	11	280	140	8.5

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland
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LOCATION	MDE	MRC-MW11A	MRC-MW11C			MRC-MW12A	MRC-MW12B	MRC-MW12C
SAMPLE ID	Groundwater	MRC-MW11A-040717	MRC-MW11C-041117	MRC-MW11C-20170411	MRC-MW11C-041117-20170411	MRC-MW12A-041117	MRC-MW12B-041217	MRC-MW12C-041217
SAMPLE DATE	Standard[1,2]	20170407	20170411			20170411	20170412	20170412
BERYLLIUM	**4**	0.4 U	0.4 U	0.4 U	0.4 U	**7**	0.4 U	0.48 U
CADMIUM	**5**	0.32 U	0.31 U	0.31 U	0.31 U	0.35 U	0.31 U	0.31 U
CALCIUM	**NC**	NA	NA	NA	NA	25000	9500	NA
CHROMIUM	**100**	10	0.87 J	0.82	0.77 J	82	0.3 J	1.1 J
COBALT	**NC**	1.9	3.4	3.3	3.1	33	38	5.6
COPPER	**1300**	10	1.1 U	1.0 U	0.89 U	52	0.36 U	2.2
IRON	**300**	NA	140	135	130	**180000**	**22000**	NA
LEAD	**15**	13	0.73 U	0.62 U	0.51 U	**50**	0.37 J	0.77 J
MAGNESIUM	**NC**	NA	NA	NA	NA	14000	8000	NA
MANGANESE	**50**	NA	39	38	36	**4200**	**3100**	NA
MERCURY	**2**	0.13 U	0.13 U	0.13 U	0.13 U	0.17 J	0.13 U	0.13 U
MOLYBDENUM	**NC**	3.2 U	0.51 U	0.51 U	0.51 U	2.6 U	0.51 U	0.51 U
NICKEL	**73**	7.5	9.3	9.2	9	**80**	56	7.7
POTASSIUM	**NC**	NA	NA	NA	NA	9900	3000 J	NA
SELENIUM	**50**	1.7 J	0.5 J	0.37	0.48 U	5.2	0.54 J	0.64 J
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	92000	11000	NA
SILVER	**100**	0.17 J	0.03 U	0.03 U	0.03 U	0.28 U	0.03 U	0.03 U
SODIUM	**NC**	NA	NA	NA	NA	22000	16000	NA
THALLIUM	**2**	0.28 U	0.28 U	0.28 U	0.28 U	0.36 J	0.28 U	0.28 U
VANADIUM	**3.7**	**16**	0.64 J	0.46	0.54 U	**120**	0.54 U	1 J
ZINC	**5000**	52	20	20	20	360	54	40
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	160	52	NA
AMMONIA	**NC**	NA	NA	NA	NA	1.7 J	0.87 U	NA
CHLORIDE	**NC**	NA	NA	NA	NA	57	22	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	14	0.67 J	NA
NITRATE-N	**NC**	NA	NA	NA	NA	0.36	0.11	NA
NITRITE-N	**NC**	NA	NA	NA	NA	0.038 U	0.038 U	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	0.083 J	0.08 J	NA
SULFATE	**NC**	NA	NA	NA	NA	11	16	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	380	130	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW13A	MRC-MW14A	MRC-MW14B	MRC-MW14C	MRC-MW15A		
SAMPLE ID	Groundwater	MRC-MW13A-041217	MRC-MW14A-033017	MRC-MW14B-041817	MRC-MW14C-033017	MRC-MW15A-040717	MRC-MW15A-	MRC-MW15A-040717-
SAMPLE DATE	Standard[1,2]	20170412	20170330	20170418	20170330	20170407	20170407	20170407
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	0.23 U	0.23 U	0.23 U	NA	NA	NA
1,1-DICHLOROETHANE	**90**	0.79 J	0.54 J	0.64 J	0.25 U	NA	NA	NA
1,1-DICHLOROETHENE	**7**	0.27 U	0.43 J	0.27 U	0.27 U	NA	NA	NA
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	0.27 U	0.27 U	NA	NA	NA
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	0.26 U	0.26 U	NA	NA	NA
1,2-DICHLOROETHANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	NA	NA	NA
1,2-DICHLOROPROPANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	NA	NA	NA
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	0.32 U	0.32 U	NA	NA	NA
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	0.23 U	0.23 U	NA	NA	NA
2-BUTANONE	**700**	1 U	1 U	14	1 U	NA	NA	NA
4-METHYL-2-PENTANONE	**630**	0.71 U	0.71 U	1.1 J	0.71 U	NA	NA	NA
ACETONE	**550**	1.8 U	1.8 U	5.3 J	1.8 U	NA	NA	NA
BENZENE	**5**	0.28 U	0.28 U	**15**	0.28 U	NA	NA	NA
CARBON DISULFIDE	**100**	0.34 UJ	0.34 U	0.34 U	0.34 U	NA	NA	NA
CARBON TETRACHLORIDE	**5**	0.35 U	0.35 U	0.35 U	0.35 U	NA	NA	NA
CHLOROBENZENE	**100**	0.32 U	0.32 U	0.32 U	0.32 U	NA	NA	NA
CHLOROETHANE	**3.6**	0.41 U	0.41 U	**19**	0.41 U	NA	NA	NA
CHLOROFORM	**80**	0.31 U	0.31 U	0.31 U	0.31 U	NA	NA	NA
CIS-1,2-DICHLOROETHENE	**70**	1	5.2	0.3 U	0.3 U	NA	NA	NA
CYCLOHEXANE	**NC**	0.44 U	0.44 U	0.44 U	0.44 U	NA	NA	NA
DICHLORODIFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 UJ	0.5 U	NA	NA	NA
ETHYLBENZENE	**700**	0.26 U	0.26 U	0.26 U	0.26 U	NA	NA	NA
ISOPROPYLBENZENE	**66**	0.21 U	0.21 U	0.32 J	0.21 U	NA	NA	NA
METHYL CYCLOHEXANE	**NC**	0.45 U	0.45 U	0.45 U	0.45 U	NA	NA	NA
METHYL TERT-BUTYL ETHER	**20**	0.27 U	0.27 U	0.27 U	0.27 U	NA	NA	NA
TETRACHLOROETHENE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	NA	NA	NA
TOLUENE	**1000**	0.23 U	0.23 U	0.23 U	0.23 U	NA	NA	NA
TOTAL XYLENES	**10000**	0.24 U	0.24 U	0.24 U	0.24 U	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	0.89 J	0.35 J	0.29 U	NA	NA	NA
TRICHLOROETHENE	**5**	0.33 U	1.1	0.78 J	0.33 U	NA	NA	NA
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 UJ	0.5 U	NA	NA	NA
VINYL CHLORIDE	**2**	1.4	0.45 U	0.45 U	0.45 U	NA	NA	NA
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	22	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	4.2	NA	NA	NA	NA
METHANE	**NC**	NA	NA	4000	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	**3.1**	1.6	**180**	0.057 U	**7.4**	**8.7**	**10**
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	NA	0.62 U	0.46 U	1.9 U	NA	NA	NA
ARSENIC	**10**	NA	0.94 J	4.4 J	0.93 J	NA	NA	NA
BARIUM	**2000**	NA	80	150	77	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW13A	MRC-MW14A	MRC-MW14B	MRC-MW14C	MRC-MW15A		
SAMPLE ID	Groundwater	MRC-MW13A-041217	MRC-MW14A-033017	MRC-MW14B-041817	MRC-MW14C-033017	MRC-MW15A-040717	MRC-MW15A-	MRC-MW15A-040717-
SAMPLE DATE	Standard[1,2]	20170412	20170330	20170418	20170330	20170407	20170407	20170407
BERYLLIUM	**4**	NA	0.4 U	0.4 U	0.4 U	NA	NA	NA
CADMIUM	**5**	NA	0.31 U	0.31 U	0.31 U	NA	NA	NA
CALCIUM	**NC**	NA	NA	12000	NA	NA	NA	NA
CHROMIUM	**100**	NA	0.26 U	1.2 J	2	NA	NA	NA
COBALT	**NC**	NA	13	26	8.6	NA	NA	NA
COPPER	**1300**	NA	0.74 U	0.94 J	1.4 U	NA	NA	NA
IRON	**300**	NA	NA	**64000**	NA	NA	NA	NA
LEAD	**15**	NA	0.21 U	0.64 U	0.91 U	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	12000	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	**2000**	NA	NA	NA	NA
MERCURY	**2**	NA	0.13 U	0.13 U	0.13 U	NA	NA	NA
MOLYBDENUM	**NC**	NA	0.51 U	1.2 J	0.52 U	NA	NA	NA
NICKEL	**73**	NA	14	34	14	NA	NA	NA
POTASSIUM	**NC**	NA	NA	2900 J	NA	NA	NA	NA
SELENIUM	**50**	NA	3 U	0.67 J	0.64 U	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	12000	NA	NA	NA	NA
SILVER	**100**	NA	0.03 U	0.03 U	0.093 U	NA	NA	NA
SODIUM	**NC**	NA	NA	300000	NA	NA	NA	NA
THALLIUM	**2**	NA	0.28 U	0.28 U	0.28 U	NA	NA	NA
VANADIUM	**3.7**	NA	0.54 U	**5.6**	2.3 U	NA	NA	NA
ZINC	**5000**	NA	6.2 U	6.5 J	15 U	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	600	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	0.87 U	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	82	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	15	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	0.035 U	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	0.038 U	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	0.26 U	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	0.13 U	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	850	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW16A MRC-MW16A-060717 20170607	MRC-MW17A MRC-MW17A-040517 20170405	MRC-MW18A MRC-MW18A-040517 20170405	MRC-MW19A MRC-MW19A-040317 20170403	MRC-MW21A MRC-MW21A-040317 20170403	MRC-MW21B MRC-MW21B-040317 20170403
Volatile organic compounds (µg/L)							
1,1,1-TRICHLOROETHANE	**200**	0.58 U	0.92 U	NA	0.23 U	0.23 U	2.9 U
1,1-DICHLOROETHANE	**90**	27	1 U	NA	2.5	1.2	17
1,1-DICHLOROETHENE	**7**	**59**	1.1 U	NA	0.27 U	0.5 J	**160**
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.68 U	1.1 U	NA	0.27 U	0.27 U	3.4 U
1,2-DICHLOROBENZENE	**600**	0.65 U	1 U	NA	0.26 U	0.26 U	3.3 U
1,2-DICHLOROETHANE	**5**	0.75 U	1.2 U	NA	0.3 U	0.3 U	3.8 U
1,2-DICHLOROPROPANE	**5**	0.75 U	1.2 U	NA	0.3 U	0.3 U	3.8 U
1,3-DICHLOROBENZENE	**1.8**	0.8 U	1.3 U	NA	0.32 U	0.32 U	4 U
1,4-DICHLOROBENZENE	**75**	0.58 U	0.92 U	NA	0.23 U	0.23 U	2.9 U
2-BUTANONE	**700**	2.6 UJ	4.1 U	NA	1 U	1 U	13 U
4-METHYL-2-PENTANONE	**630**	1.8 U	2.8 U	NA	0.71 U	0.71 U	8.9 U
ACETONE	**550**	4.4 UJ	7 U	NA	1.8 U	2.6 J	22 U
BENZENE	**5**	0.71 J	**110**	NA	0.28 U	0.28 U	**21**
CARBON DISULFIDE	**100**	0.85 U	1.4 UJ	NA	0.34 U	0.34 U	4.3 U
CARBON TETRACHLORIDE	**5**	0.88 U	1.4 U	NA	0.35 U	0.35 U	4.4 U
CHLOROBENZENE	**100**	0.8 U	1.3 U	NA	0.32 U	0.32 U	4 U
CHLOROETHANE	**3.6**	1 U	1.6 U	NA	0.41 U	0.41 U	5.1 U
CHLOROFORM	**80**	0.78 U	1.2 U	NA	0.6 J	0.31 U	3.9 U
CIS-1,2-DICHLOROETHENE	**70**	10	1.2 U	NA	0.3 U	0.3 U	6.1 J
CYCLOHEXANE	**NC**	1.1 U	32	NA	0.44 U	0.44 U	5.5 U
DICHLORODIFLUOROMETHANE	**NC**	1.3 U	2 U	NA	0.5 U	0.5 U	6.3 U
ETHYLBENZENE	**700**	0.65 U	44	NA	0.26 U	0.26 U	3.3 U
ISOPROPYLBENZENE	**66**	0.53 U	3.2 J	NA	0.21 U	0.21 U	12 J
METHYL CYCLOHEXANE	**NC**	1.1 U	13 J	NA	0.45 U	0.45 U	5.6 U
METHYL TERT-BUTYL ETHER	**20**	0.68 U	1.1 U	NA	0.27 U	0.27 U	3.4 U
TETRACHLOROETHENE	**5**	**7.3**	1.2 U	NA	0.3 U	0.3 U	**8.5 J**
TOLUENE	**1000**	0.58 U	7.9	NA	0.23 U	0.23 U	2.9 U
TOTAL XYLENES	**10000**	0.6 U	13	NA	0.24 U	0.24 U	3 U
TRANS-1,2-DICHLOROETHENE	**100**	0.73 U	1.2 U	NA	0.29 U	0.29 U	3.6 U
TRICHLOROETHENE	**5**	**22**	**7.5**	NA	0.33 U	0.76 J	**570**
TRICHLOROFLUOROMETHANE	**NC**	1.3 U	2 U	NA	1.2	0.5 U	6.3 U
VINYL CHLORIDE	**2**	**7.8**	1.8 U	NA	0.45 U	0.45 U	5.6 U
Volatile gases (µg/L)							
ETHANE	**NC**	NA	NA	NA	NA	NA	0.14 U
ETHENE	**NC**	NA	NA	NA	NA	NA	0.33 J
METHANE	**NC**	NA	NA	NA	NA	NA	12
Semivolatile organic compounds (µg/L)							
1,4-DIOXANE	**3**	**62**	2.6	NA	**6.9**	0.43	**40**
Polychlorinated biphenyl homologs (µg/L)							
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA
Total metals (µg/L)							
ANTIMONY	**6**	0.74 J	NA	NA	NA	NA	NA
ARSENIC	**10**	0.87 J	NA	NA	NA	NA	NA
BARIUM	**2000**	400	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW16A MRC-MW16A-060717 20170607	MRC-MW17A MRC-MW17A-040517 20170405	MRC-MW18A MRC-MW18A-040517 20170405	MRC-MW19A MRC-MW19A-040317 20170403	MRC-MW21A MRC-MW21A-040317 20170403	MRC-MW21B MRC-MW21B-040317 20170403
BERYLLIUM	**4**	**12**	NA	NA	NA	NA	NA
CADMIUM	**5**	1.8	NA	NA	NA	NA	NA
CALCIUM	**NC**	NA	NA	NA	NA	NA	8000
CHROMIUM	**100**	0.98 U	NA	NA	NA	NA	NA
COBALT	**NC**	400	NA	NA	NA	NA	NA
COPPER	**1300**	9.2 U	NA	NA	NA	NA	NA
IRON	**300**	NA	NA	NA	NA	NA	**35000 J**
LEAD	**15**	1.1	NA	NA	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	7300
MANGANESE	**50**	NA	NA	NA	NA	NA	**3400**
MERCURY	**2**	0.13 U	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	1.1 U	NA	NA	NA	NA	NA
NICKEL	**73**	**390**	NA	NA	NA	NA	NA
POTASSIUM	**NC**	NA	NA	NA	NA	NA	2800 J
SELENIUM	**50**	1.8 J	NA	NA	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	15000 J
SILVER	**100**	0.053 U	NA	NA	NA	NA	NA
SODIUM	**NC**	NA	NA	NA	NA	NA	16000
THALLIUM	**2**	0.21 J	NA	NA	NA	NA	NA
VANADIUM	**3.7**	0.82 U	NA	NA	NA	NA	NA
ZINC	**5000**	620	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)							
ALKALINITY	**NC**	NA	NA	NA	NA	NA	34
AMMONIA	**NC**	NA	NA	NA	NA	NA	0.87 U
CHLORIDE	**NC**	NA	NA	NA	NA	NA	79
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	0.42 U
NITRATE-N	**NC**	NA	NA	NA	NA	NA	0.035 U
NITRITE-N	**NC**	NA	NA	NA	NA	NA	0.038 U
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	0.023 J
SULFATE	**NC**	NA	NA	NA	NA	NA	2.7
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	190
MISCELLANEOUS PARAMETERS (µg/L)							
HEXAVALENT CHROMIUM	**100**	0.047 UJ	0.047 UJ	0.047 UJ	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW22A MRC-MW22A-040317 20170403	MRC-MW22B MRC-MW22B-041417 20170414	MRC-MW24A MRC-MW24A-041717 20170417	MRC-MW25A MRC-MW25A-042117 20170421	MRC-MW27A MRC-MW27A- 20170417	MRC-MW27B MRC-MW27B-041717 20170417	MRC-MW27C MRC-MW27C-041717 20170417
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	0.23 U	NA	1.2 U	0.23 U	0.23 U	0.23 U
1,1-DICHLOROETHANE	**90**	0.25 U	1.3	NA	1.3 U	1.8	2	0.25 U
1,1-DICHLOROETHENE	**7**	0.27 U	3.7	NA	1.4 U	1.8	2.9	0.27 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	NA	1.4 U	0.27 U	0.27 U	0.27 U
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	NA	1.3 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	**5**	0.3 U	0.3 U	NA	1.5 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	**5**	0.3 U	0.3 U	NA	1.5 U	0.3 U	0.3 U	0.3 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	NA	1.6 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	NA	1.2 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	**700**	1 U	1 U	NA	5.1 U	1 U	1 U	1 U
4-METHYL-2-PENTANONE	**630**	0.71 U	0.71 U	NA	3.6 U	0.71 U	0.71 U	0.71 U
ACETONE	**550**	1.8 U	1.8 U	NA	8.8 U	5.5 J	2.3 J	1.8 U
BENZENE	**5**	0.28 U	0.28 U	NA	1.4 U	1.2	0.28 U	0.28 U
CARBON DISULFIDE	**100**	0.34 U	0.34 U	NA	1.7 U	0.34 UJ	0.34 UJ	0.34 UJ
CARBON TETRACHLORIDE	**5**	0.35 U	0.35 U	NA	1.8 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	**100**	0.32 U	0.32 U	NA	1.6 U	0.32 U	0.32 U	0.32 U
CHLOROETHANE	**3.6**	0.41 U	0.41 U	NA	2.1 U	0.41 U	0.41 U	0.41 U
CHLOROFORM	**80**	0.31 U	0.31 U	NA	1.6 U	0.31 U	0.31 U	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	0.3 U	0.3 U	NA	7.2	40	**86**	0.35 J
CYCLOHEXANE	**NC**	0.44 U	0.44 U	NA	2.2 U	0.72 J	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	0.5 U	0.5 U	NA	2.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
ETHYLBENZENE	**700**	0.26 U	0.26 U	NA	1.3 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	**66**	0.21 U	0.21 U	NA	1.1 U	0.21 U	0.21 U	0.21 U
METHYL CYCLOHEXANE	**NC**	0.45 U	0.45 U	NA	2.3 U	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	**20**	0.27 U	0.27 U	NA	1.4 U	14	1.2	0.27 U
TETRACHLOROETHENE	**5**	0.3 U	0.31 J	NA	1.5 U	0.63 J	0.57 J	0.3 U
TOLUENE	**1000**	0.23 U	0.23 U	NA	1.2 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	**10000**	0.24 U	0.24 U	NA	1.2 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	0.29 U	NA	1.5 U	2.7	1	0.29 U
TRICHLOROETHENE	**5**	0.94 J	2	NA	**170**	**160**	**300**	0.33 U
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	0.5 U	NA	2.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	**2**	0.45 U	0.45 U	NA	2.3 U	**18**	**2.2**	0.45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	0.33 J	0.14 U	4.7	0.14 U	NA
ETHENE	**NC**	NA	NA	0.13 U	0.13 U	1.8	0.13 U	NA
METHANE	**NC**	NA	NA	120	12	750	0.44 J	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	0.82	**8.5**	NA	**4.5**	0.78	1.3	0.057 U
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	NA	NA	NA	NA	NA	NA	NA
ARSENIC	**10**	NA	NA	NA	NA	NA	NA	NA
BARIUM	**2000**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW22A MRC-MW22A-040317 20170403	MRC-MW22B MRC-MW22B-041417 20170414	MRC-MW24A MRC-MW24A-041717 20170417	MRC-MW25A MRC-MW25A-042117 20170421	MRC-MW27A MRC-MW27A- 20170417	MRC-MW27B MRC-MW27B-041717 20170417	MRC-MW27C MRC-MW27C-041717 20170417
BERYLLIUM	**4**	NA	NA	NA	NA	NA	NA	NA
CADMIUM	**5**	NA	NA	NA	NA	NA	NA	NA
CALCIUM	**NC**	NA	NA	18000	15000	20000	15000	NA
CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA
COBALT	**NC**	NA	NA	NA	NA	NA	NA	NA
COPPER	**1300**	NA	NA	NA	NA	NA	NA	NA
IRON	**300**	NA	NA	65 J	**25000**	**130000**	**1000**	NA
LEAD	**15**	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	37000	7400	37000	2600 J	NA
MANGANESE	**50**	NA	NA	**32000**	**3900**	**43000**	**100**	NA
MERCURY	**2**	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	NA	NA	NA	NA	NA	NA	NA
NICKEL	**73**	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	**NC**	NA	NA	3000 J	2400 J	3400 J	5400	NA
SELENIUM	**50**	NA	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	13000	11000	12000	12000	NA
SILVER	**100**	NA	NA	NA	NA	NA	NA	NA
SODIUM	**NC**	NA	NA	210000	83000	350000	110000	NA
THALLIUM	**2**	NA	NA	NA	NA	NA	NA	NA
VANADIUM	**3.7**	NA	NA	NA	NA	NA	NA	NA
ZINC	**5000**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	1.9 U	26	36	24	NA
AMMONIA	**NC**	NA	NA	0.87 U	0.87 U	2.5	0.87 U	NA
CHLORIDE	**NC**	NA	NA	550	170	880	190	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	0.69 J	1	1.5	2.7	NA
NITRATE-N	**NC**	NA	NA	0.18 U	0.035 U	0.35 U	0.7 U	NA
NITRITE-N	**NC**	NA	NA	0.19 U	0.038 U	0.38 U	0.76 U	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	0.035 J	0.05 U	0.043 J	0.031 J	NA
SULFATE	**NC**	NA	NA	0.65 U	3.9	1.9 J	14 J	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	980	370	1600	380	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW27C		MRC-MW29A	MRC-MW32A	MRC-MW33A	MRC-MW34A
SAMPLE ID	Groundwater	MRC-MW27C-041717-	MRC-MW27C-041717-	MRC-MW29A-040717	MRC-MW32A-031017	MRC-MW33A-031017	MRC-MW34A-031017
SAMPLE DATE	Standard[1,2]	20170417	20170417	20170407	20170310	20170310	20170310
Volatile organic compounds (µg/L)							
1,1,1-TRICHLOROETHANE	**200**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1-DICHLOROETHANE	**90**	0.25 U	0.25 U	3.7	0.25 U	0.27 J	0.25 U
1,1-DICHLOROETHENE	**7**	0.27 U	0.27 U	1.8	0.27 U	0.27 U	0.27 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	**700**	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ
4-METHYL-2-PENTANONE	**630**	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	**550**	1.4	1.9 J	1.8 U	1.8 U	1.8 U	1.8 U
BENZENE	**5**	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
CARBON DISULFIDE	**100**	0.34 U	0.34 UJ	0.34 UJ	0.34 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	**5**	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	**100**	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROETHANE	**3.6**	0.41 U	0.41 U	0.41 U	0.41 UJ	0.41 UJ	0.41 UJ
CHLOROFORM	**80**	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	0.25	0.3 U	3.7	0.3 U	2.8	0.3 U
CYCLOHEXANE	**NC**	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ
ETHYLBENZENE	**700**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	**66**	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
METHYL CYCLOHEXANE	**NC**	0.45 U	0.45 U	0.45 UJ	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	**20**	0.27 U	0.27 U	4.4	0.27 U	4.5	0.27 U
TETRACHLOROETHENE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	**1000**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	**10000**	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TRICHLOROETHENE	**5**	0.42	0.67 J	**11**	0.33 U	2.5	**17**
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	**2**	0.45 U	0.45 U	0.56 J	0.45 U	0.45 U	0.45 U
Volatile gases (µg/L)							
ETHANE	**NC**	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)							
1,4-DIOXANE	**3**	0.057 U	NA	NA	NA	0.17 J	0.057 U
Polychlorinated biphenyl homologs (µg/L)							
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA
Total metals (µg/L)							
ANTIMONY	**6**	NA	NA	NA	NA	NA	NA
ARSENIC	**10**	NA	NA	NA	NA	NA	NA
BARIUM	**2000**	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW27C		MRC-MW29A	MRC-MW32A	MRC-MW33A	MRC-MW34A
SAMPLE ID	Groundwater	MRC-MW27C-041717-	MRC-MW27C-041717-	MRC-MW29A-040717	MRC-MW32A-031017	MRC-MW33A-031017	MRC-MW34A-031017
SAMPLE DATE	Standard[1,2]	20170417	20170417	20170407	20170310	20170310	20170310
BERYLLIUM	**4**	NA	NA	NA	NA	NA	NA
CADMIUM	**5**	NA	NA	NA	NA	NA	NA
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	NA	NA	NA	NA	NA	NA
COBALT	**NC**	NA	NA	NA	NA	NA	NA
COPPER	**1300**	NA	NA	NA	NA	NA	NA
IRON	**300**	NA	NA	NA	NA	NA	NA
LEAD	**15**	NA	NA	NA	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA
MERCURY	**2**	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	NA	NA	NA	NA	NA	NA
NICKEL	**73**	NA	NA	NA	NA	NA	NA
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA
SILVER	**100**	NA	NA	NA	NA	NA	NA
SODIUM	**NC**	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	NA	NA	NA	NA	NA	NA
VANADIUM	**3.7**	NA	NA	NA	NA	NA	NA
ZINC	**5000**	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)							
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)							
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW34A MRC-MW34A-031017-20170310	 MRC-MW34A-031017-20170310	MRC-MW34B MRC-MW34B-031517 20170315	MRC-MW34C MRC-MW34C-031517 20170315	MRC-MW37A MRC-MW37A-032917 20170329	MRC-MW37B MRC-MW37B-032917 20170329	MRC-MW37C MRC-MW37C-032717 20170327
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.29 U	0.23 U
1,1-DICHLOROETHANE	**90**	0.25 U	0.25 U	0.68 J	0.25 U	0.25 U	0.31 U	0.25 U
1,1-DICHLOROETHENE	**7**	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.34 U	0.27 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	0.27 U	0.27 U	0.27 UJ	0.34 UJ	0.27 U
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.33 U	0.26 U
1,2-DICHLOROETHANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.38 U	0.3 U
1,2-DICHLOROPROPANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.38 U	0.3 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.4 U	0.32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.29 U	0.23 U
2-BUTANONE	**700**	1 U	1 UJ	1 U	1 U	1 U	1.3 U	1 UJ
4-METHYL-2-PENTANONE	**630**	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.89 U	0.71 U
ACETONE	**550**	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	2.2 U	1.8 U
BENZENE	**5**	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.35 U	0.28 U
CARBON DISULFIDE	**100**	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.43 U	0.34 U
CARBON TETRACHLORIDE	**5**	0.35 U	0.35 U	3.9	0.35 U	0.35 U	0.44 U	0.35 U
CHLOROBENZENE	**100**	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.4 U	0.32 U
CHLOROETHANE	**3.6**	0.41 U	0.41 UJ	0.41 U	0.41 U	0.41 U	0.51 U	0.41 U
CHLOROFORM	**80**	0.31 U	0.31 U	1.4	0.31 U	0.31 U	0.39 U	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	0.3 U	0.3 U	13	0.3 U	0.3 U	9	0.3 U
CYCLOHEXANE	**NC**	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.55 U	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.63 U	0.5 UJ
ETHYLBENZENE	**700**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.33 U	0.26 U
ISOPROPYLBENZENE	**66**	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.26 U	0.21 U
METHYL CYCLOHEXANE	**NC**	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.56 U	0.45 U
METHYL TERT-BUTYL ETHER	**20**	0.27 U	0.27 U	**23**	0.27 U	0.27 U	0.34 U	0.27 U
TETRACHLOROETHENE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.38 U	0.3 U
TOLUENE	**1000**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.29 U	0.23 U
TOTAL XYLENES	**10000**	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.3 U	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	0.29 U	0.8 J	0.29 U	0.29 U	0.36 U	0.29 U
TRICHLOROETHENE	**5**	**17**	**17**	**14**	0.33 U	4.5	**64**	0.33 U
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.63 U	0.5 U
VINYL CHLORIDE	**2**	0.45 U	0.45 U	1.5	0.45 U	0.45 U	0.56 U	0.45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	0.14 U	NA	0.14 U	0.14 U	NA
ETHENE	**NC**	NA	NA	0.13 U	NA	0.13 U	0.13 U	NA
METHANE	**NC**	NA	NA	24	NA	0.08 U	0.08 J	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	0.057 U	0.057 U	0.45	0.057 U	0.057 U	0.18 J	0.057 U
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	0.0054 U	0.0055 U	0.011 U
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	0.015 U	0.015 U	0.03 U
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	0.0056 U	0.0057 U	0.011 U
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	0.014 U	0.014 U	0.028 U
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	0.013 U	0.013 U	0.026 U
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	0.0065 U	0.0066 U	0.013 U
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	0	0	0
Total metals (µg/L)								
ANTIMONY	**6**	NA	NA	NA	NA	2.8	NA	NA
ARSENIC	**10**	NA	NA	NA	NA	2.1 J	NA	NA
BARIUM	**2000**	NA	NA	NA	NA	40	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW34A		MRC-MW34B	MRC-MW34C	MRC-MW37A	MRC-MW37B	MRC-MW37C
SAMPLE ID	Groundwater	MRC-MW34A-031017-	MRC-MW34A-031017-	MRC-MW34B-031517	MRC-MW34C-031517	MRC-MW37A-032917	MRC-MW37B-032917	MRC-MW37C-032717
SAMPLE DATE	Standard[1,2]	20170310	20170310	20170315	20170315	20170329	20170329	20170327
BERYLLIUM	**4**	NA	NA	NA	NA	0.4 U	NA	NA
CADMIUM	**5**	NA	NA	NA	NA	0.33 U	NA	NA
CALCIUM	**NC**	NA	NA	16000	NA	120000	7800	NA
CHROMIUM	**100**	NA	NA	NA	NA	1.8 U	NA	NA
COBALT	**NC**	NA	NA	NA	NA	2.1	NA	NA
COPPER	**1300**	NA	NA	NA	NA	2.4	NA	NA
IRON	**300**	NA	NA	NA	NA	**690 J**	**330 J**	NA
LEAD	**15**	NA	NA	NA	NA	1.1	NA	NA
MAGNESIUM	**NC**	NA	NA	13000	NA	24000	3900 J	NA
MANGANESE	**50**	NA	NA	NA	NA	15	**100**	NA
MERCURY	**2**	NA	NA	NA	NA	0.13 U	NA	NA
MOLYBDENUM	**NC**	NA	NA	NA	NA	0.89 U	NA	NA
NICKEL	**73**	NA	NA	NA	NA	2.3	NA	NA
POTASSIUM	**NC**	NA	NA	7500	NA	7300 J	2600 U	NA
SELENIUM	**50**	NA	NA	NA	NA	5.6	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	9300	NA	3800 J	3600 J	NA
SILVER	**100**	NA	NA	NA	NA	0.033 U	NA	NA
SODIUM	**NC**	NA	NA	83000	NA	15000	14000	NA
THALLIUM	**2**	NA	NA	NA	NA	0.28 U	NA	NA
VANADIUM	**3.7**	NA	NA	NA	NA	2 J	NA	NA
ZINC	**5000**	NA	NA	NA	NA	13 U	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	1.9 U	NA	84	6.4	NA
AMMONIA	**NC**	NA	NA	NA	NA	0.87 U	0.87 U	NA
CHLORIDE	**NC**	NA	NA	200	NA	13	25	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	1.2	NA	3.3	0.86 J	NA
NITRATE-N	**NC**	NA	NA	0.14	NA	2.5	1.2	NA
NITRITE-N	**NC**	NA	NA	0.038 U	NA	0.038 U	0.038 U	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	0.03 J	NA	0.014 J	0.047 J	NA
SULFATE	**NC**	NA	NA	18	NA	360	26	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	360	NA	640	110	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW38A MRC-MW38A-033117 20170331	MRC-MW38B MRC-MW38B-033117 20170331	MRC-MW41A MRC-MW41A-041117 20170411	MRC-MW43A MRC-MW43A-031517 20170315	MRC-MW44A MRC-MW44A-030817 20170308	MRC-MW48A MRC-MW48A-041917 20170419	MRC-MW50A MRC-MW50A-040417 20170404
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	0.23 U	0.23 U	NA	NA	12 U	0.23 U
1,1-DICHLOROETHANE	**90**	0.25 U	0.25 U	0.25 U	NA	NA	13 U	0.25 U
1,1-DICHLOROETHENE	**7**	0.27 U	0.27 U	0.27 U	NA	NA	**23 J**	0.27 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	1300	0.35 U	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	0.27 U	**5300**	0.27 U	14 U	0.27 UJ
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	0.26 U	310	0.26 U	13 U	0.26 U
1,2-DICHLOROETHANE	**5**	0.3 U	0.3 U	0.3 U	NA	NA	15 U	0.3 U
1,2-DICHLOROPROPANE	**5**	0.3 U	0.3 U	0.3 U	NA	NA	15 U	0.3 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	0.32 U	80 U	0.32 U	16 U	0.32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	0.23 U	**350**	0.23 U	12 U	0.23 U
2-BUTANONE	**700**	1 U	1 U	1 U	NA	NA	51 U	1 U
4-METHYL-2-PENTANONE	**630**	0.71 U	0.71 U	0.71 U	NA	NA	36 U	0.71 U
ACETONE	**550**	1.8 U	1.8 U	1.8 U	NA	NA	88 U	1.8 U
BENZENE	**5**	0.28 U	0.28 U	0.28 U	NA	NA	14 U	0.28 U
CARBON DISULFIDE	**100**	0.34 U	0.34 U	0.34 UJ	NA	NA	17 U	0.34 U
CARBON TETRACHLORIDE	**5**	0.35 U	0.35 U	0.35 U	NA	NA	18 U	0.35 U
CHLOROBENZENE	**100**	0.32 U	0.32 U	0.32 U	80 U	0.32 U	16 U	0.32 U
CHLOROETHANE	**3.6**	0.41 U	0.41 U	0.41 U	NA	NA	21 U	0.41 U
CHLOROFORM	**80**	5.9	0.31 U	0.31 U	NA	NA	16 U	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	0.3 U	0.3 U	0.3 U	NA	NA	**2000**	0.3 U
CYCLOHEXANE	**NC**	0.44 U	0.44 U	0.44 U	NA	NA	22 U	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	NA	NA	25 U	0.5 UJ
ETHYLBENZENE	**700**	0.26 U	0.26 U	0.26 U	NA	NA	13 U	0.26 U
ISOPROPYLBENZENE	**66**	0.21 U	0.21 U	0.21 U	NA	NA	11 U	0.21 U
METHYL CYCLOHEXANE	**NC**	0.45 U	0.45 U	0.45 U	NA	NA	23 U	0.45 U
METHYL TERT-BUTYL ETHER	**20**	0.27 U	0.27 U	0.27 U	NA	NA	14 U	0.27 U
TETRACHLOROETHENE	**5**	0.3 U	0.3 U	0.3 U	NA	NA	15 U	0.3 U
TOLUENE	**1000**	0.23 U	0.23 U	0.23 U	NA	NA	12 U	0.23 U
TOTAL XYLENES	**10000**	0.24 U	0.24 U	0.24 U	NA	NA	12 U	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	0.29 U	0.29 U	NA	NA	19 J	0.29 U
TRICHLOROETHENE	**5**	0.33 U	0.33 U	0.33 U	NA	NA	**880**	**7.6**
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	NA	NA	25 U	0.5 U
VINYL CHLORIDE	**2**	0.45 U	0.45 U	0.45 U	NA	NA	**200**	0.45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	7.5	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	48	NA
METHANE	**NC**	NA	NA	NA	NA	NA	4300	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	NA	NA	0.45	NA	**4.7**	**6**	NA
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	0.061 J	0.0053 U	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	0.023 J	0.015 U	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	0.26	0.0055 U	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	0.2	0.014 U	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	0.05 J	0.013 U	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	0.007 J	0.0064 U	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	**0.60**	0	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	NA	NA	NA	NA	NA	0.43 U	NA
ARSENIC	**10**	NA	NA	NA	NA	NA	2.9 J	NA
BARIUM	**2000**	NA	NA	NA	NA	NA	150	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW38A MRC-MW38A-033117 20170331	MRC-MW38B MRC-MW38B-033117 20170331	MRC-MW41A MRC-MW41A-041117 20170411	MRC-MW43A MRC-MW43A-031517 20170315	MRC-MW44A MRC-MW44A-030817 20170308	MRC-MW48A MRC-MW48A-041917 20170419	MRC-MW50A MRC-MW50A-040417 20170404
BERYLLIUM	**4**	NA	NA	NA	NA	NA	2.3	NA
CADMIUM	**5**	NA	NA	NA	NA	NA	0.31 U	NA
CALCIUM	**NC**	NA	NA	NA	NA	NA	1800 J	NA
CHROMIUM	**100**	NA	NA	NA	NA	NA	0.38 J	NA
COBALT	**NC**	NA	NA	NA	NA	NA	130	NA
COPPER	**1300**	NA	NA	NA	NA	NA	0.43 U	NA
IRON	**300**	NA	NA	NA	NA	NA	**84000**	NA
LEAD	**15**	NA	NA	NA	NA	NA	0.41 U	NA
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	14000	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	**11000**	NA
MERCURY	**2**	NA	NA	NA	NA	NA	0.13 UJ	NA
MOLYBDENUM	**NC**	NA	NA	NA	NA	NA	0.51 U	NA
NICKEL	**73**	NA	NA	NA	NA	NA	34	NA
POTASSIUM	**NC**	NA	NA	NA	NA	NA	330 J	NA
SELENIUM	**50**	NA	NA	NA	NA	NA	1.3 J	NA
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	15000	NA
SILVER	**100**	NA	NA	NA	NA	NA	0.03 U	NA
SODIUM	**NC**	NA	NA	NA	NA	NA	51000	NA
THALLIUM	**2**	NA	NA	NA	NA	NA	0.28 U	NA
VANADIUM	**3.7**	NA	NA	NA	NA	NA	0.54 U	NA
ZINC	**5000**	NA	NA	NA	NA	NA	6.2 U	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	79	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	0.87 U	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	120	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	7.5	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	0.31	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	0.038 U	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	0.035 J	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	6.6	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	340	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW53A MRC-MW53A-031617 20170316	MRC-MW53B MRC-MW53B-031617 20170316	MRC-MW53B MRC-MW53B-031617- 20170316	MRC-MW53B MRC-MW53B-031617- 20170316	MRC-MW57A MRC-MW57A-031717 20170317	MRC-MW58A MRC-MW58A-030907 20170309	MRC-MW60A MRC-MW60A-031317 20170313
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.46 UJ	0.23 UJ	0.23 U	0.23 UJ	0.23 U	0.23 U	12 U
1,1-DICHLOROETHANE	**90**	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	13 U
1,1-DICHLOROETHENE	**7**	2	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	14 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.54 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	14 U
1,2-DICHLOROBENZENE	**600**	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	13 U
1,2-DICHLOROETHANE	**5**	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	15 U
1,2-DICHLOROPROPANE	**5**	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	15 U
1,3-DICHLOROBENZENE	**1.8**	0.64 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	16 U
1,4-DICHLOROBENZENE	**75**	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	12 U
2-BUTANONE	**700**	2 U	1 U	1 U	1 U	1 U	1 U	51 U
4-METHYL-2-PENTANONE	**630**	1.4 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	36 U
ACETONE	**550**	3.5 U	5.4 J	5.5	5.6 J	1.8 U	1.8 U	88 U
BENZENE	**5**	0.56 U	**17**	**17**	**17**	0.28 U	0.28 U	14 U
CARBON DISULFIDE	**100**	0.68 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	17 U
CARBON TETRACHLORIDE	**5**	0.7 UJ	0.35 UJ	0.35 U	0.35 UJ	0.35 U	0.35 U	18 U
CHLOROBENZENE	**100**	0.64 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	16 U
CHLOROETHANE	**3.6**	0.82 UJ	0.41 UJ	0.41 U	0.41 UJ	0.41 U	0.41 U	21 U
CHLOROFORM	**80**	0.62 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	16 U
CIS-1,2-DICHLOROETHENE	**70**	3.3	1.5	1.5	1.5	0.3 U	0.3 U	**520**
CYCLOHEXANE	**NC**	0.88 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	22 U
DICHLORODIFLUOROMETHANE	**NC**	1 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	25 U
ETHYLBENZENE	**700**	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	13 U
ISOPROPYLBENZENE	**66**	0.42 UJ	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	11 U
METHYL CYCLOHEXANE	**NC**	0.9 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	23 UJ
METHYL TERT-BUTYL ETHER	**20**	0.54 U	1.3	1.3	1.3	0.27 U	0.27 U	14 U
TETRACHLOROETHENE	**5**	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	15 U
TOLUENE	**1000**	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	12 U
TOTAL XYLENES	**10000**	0.48 U	1.1 J	1.2	1.2 J	0.24 U	0.24 U	12 U
TRANS-1,2-DICHLOROETHENE	**100**	0.58 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	15 U
TRICHLOROETHENE	**5**	**41**	**12**	**12**	**11**	0.33 U	0.33 U	**1300**
TRICHLOROFLUOROMETHANE	**NC**	1 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	25 U
VINYL CHLORIDE	**2**	0.9 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	**69**
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	**3.6**	0.51	0.51	NA	NA	0.37	2.4
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	NA	NA	NA	NA	NA	NA	2.2
ARSENIC	**10**	NA	NA	NA	NA	NA	NA	1.5 J
BARIUM	**2000**	NA	NA	NA	NA	NA	NA	59

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW53A	MRC-MW53B	MRC-MW53B		MRC-MW57A	MRC-MW58A	MRC-MW60A
SAMPLE ID	Groundwater	MRC-MW53A-031617	MRC-MW53B-031617	MRC-MW53B-031617-	MRC-MW53B-031617-	MRC-MW57A-031717	MRC-MW58A-030907	MRC-MW60A-031317
SAMPLE DATE	Standard[1,2]	20170316	20170316	20170316	20170316	20170317	20170309	20170313
BERYLLIUM	**4**	NA	NA	NA	NA	NA	NA	2.4
CADMIUM	**5**	NA	NA	NA	NA	NA	NA	0.31 U
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	0.43 J
COBALT	**NC**	NA	NA	NA	NA	NA	NA	73
COPPER	**1300**	NA	NA	NA	NA	NA	NA	0.38 U
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	NA	NA	NA	NA	NA	NA	0.55 U
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	NA	NA	NA	NA	NA	NA	1.5 U
NICKEL	**73**	NA	NA	NA	NA	NA	NA	**89**
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	NA	NA	NA	NA	NA	NA	1 U
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
SILVER	**100**	NA	NA	NA	NA	NA	NA	0.03 U
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	NA	NA	NA	NA	NA	NA	0.28 U
VANADIUM	**3.7**	NA	NA	NA	NA	NA	NA	0.54 U
ZINC	**5000**	NA	NA	NA	NA	NA	NA	26
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW60B MRC-MW60B-031317 20170313	MRC-MW62A MRC-MW62A-031517 20170315	MRC-MW62C MRC-MW62C-031517 20170315	MRC-MW63A MRC-MW63A-041217 20170412	MRC-MW64A MRC-MW64A-040517 20170405	MRC-MW64A MRC-MW64A-040517- 20170405	MRC-MW64A MRC-MW64A-040517- 20170405
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	46 U	NA	NA	0.23 U	NA	NA	NA
1,1-DICHLOROETHANE	**90**	50 U	NA	NA	3.4	NA	NA	NA
1,1-DICHLOROETHENE	**7**	54 U	NA	NA	1.9	NA	NA	NA
1,2,3-TRICHLOROBENZENE	**NC**	NA	1.4	0.35 U	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	54 U	6	0.58 J	0.27 U	NA	NA	NA
1,2-DICHLOROBENZENE	**600**	52 U	0.58 J	0.26 U	0.26 U	NA	NA	NA
1,2-DICHLOROETHANE	**5**	60 U	NA	NA	0.3 U	NA	NA	NA
1,2-DICHLOROPROPANE	**5**	60 U	NA	NA	0.3 U	NA	NA	NA
1,3-DICHLOROBENZENE	**1.8**	64 U	0.32 U	0.32 U	0.32 U	NA	NA	NA
1,4-DICHLOROBENZENE	**75**	46 U	0.94 J	0.23 U	0.23 U	NA	NA	NA
2-BUTANONE	**700**	200 U	NA	NA	1 U	NA	NA	NA
4-METHYL-2-PENTANONE	**630**	140 U	NA	NA	0.71 U	NA	NA	NA
ACETONE	**550**	350 U	NA	NA	1.8 U	NA	NA	NA
BENZENE	**5**	56 U	NA	NA	0.28 U	NA	NA	NA
CARBON DISULFIDE	**100**	68 U	NA	NA	0.34 UJ	NA	NA	NA
CARBON TETRACHLORIDE	**5**	70 U	NA	NA	0.35 U	NA	NA	NA
CHLOROBENZENE	**100**	64 U	0.5 J	0.32 U	0.32 U	NA	NA	NA
CHLOROETHANE	**3.6**	82 U	NA	NA	0.41 U	NA	NA	NA
CHLOROFORM	**80**	62 U	NA	NA	0.31 U	NA	NA	NA
CIS-1,2-DICHLOROETHENE	**70**	**220**	NA	NA	4.8	NA	NA	NA
CYCLOHEXANE	**NC**	88 U	NA	NA	0.44 U	NA	NA	NA
DICHLORODIFLUOROMETHANE	**NC**	100 U	NA	NA	0.5 U	NA	NA	NA
ETHYLBENZENE	**700**	52 U	NA	NA	0.26 U	NA	NA	NA
ISOPROPYLBENZENE	**66**	42 U	NA	NA	0.21 U	NA	NA	NA
METHYL CYCLOHEXANE	**NC**	90 UJ	NA	NA	0.45 U	NA	NA	NA
METHYL TERT-BUTYL ETHER	**20**	54 U	NA	NA	0.27 U	NA	NA	NA
TETRACHLOROETHENE	**5**	60 U	NA	NA	0.3 U	NA	NA	NA
TOLUENE	**1000**	46 U	NA	NA	0.23 U	NA	NA	NA
TOTAL XYLENES	**10000**	48 U	NA	NA	0.24 U	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	**100**	58 U	NA	NA	0.29 U	NA	NA	NA
TRICHLOROETHENE	**5**	**7100**	NA	NA	3.8	NA	NA	NA
TRICHLOROFLUOROMETHANE	**NC**	100 U	NA	NA	0.5 U	NA	NA	NA
VINYL CHLORIDE	**2**	90 U	NA	NA	0.87 J	NA	NA	NA
Volatile gases (µg/L)								
ETHANE	**NC**	0.14 U	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	0.13 U	NA	NA	NA	NA	NA	NA
METHANE	**NC**	67	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	0.86	NA	NA	**6.2**	NA	NA	NA
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	0.0053 U	0.0053 U	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	0.015 U	0.015 U	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	0.0055 U	0.0055 U	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	0.014 U	0.014 U	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	0.013 U	0.013 U	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	0.0064 U	0.0064 U	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	0	0	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	0.59 U	NA	NA	NA	NA	NA	NA
ARSENIC	**10**	0.49 J	NA	NA	NA	NA	NA	NA
BARIUM	**2000**	61	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW60B	MRC-MW62A	MRC-MW62C	MRC-MW63A	MRC-MW64A		
SAMPLE ID	Groundwater	MRC-MW60B-031317	MRC-MW62A-031517	MRC-MW62C-031517	MRC-MW63A-041217	MRC-MW64A-040517	MRC-MW64A-040517-	MRC-MW64A-040517-
SAMPLE DATE	Standard[1,2]	20170313	20170315	20170315	20170412	20170405	20170405	20170405
BERYLLIUM	**4**	0.44 J	NA	NA	NA	NA	NA	NA
CADMIUM	**5**	0.31 U	NA	NA	NA	NA	NA	NA
CALCIUM	**NC**	3400 J	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	0.29 J	NA	NA	NA	NA	NA	NA
COBALT	**NC**	41	NA	NA	NA	NA	NA	NA
COPPER	**1300**	0.36 U	NA	NA	NA	NA	NA	NA
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	0.37 U	NA	NA	NA	NA	NA	NA
MAGNESIUM	**NC**	5200	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	0.51 U	NA	NA	NA	NA	NA	NA
NICKEL	**73**	71	NA	NA	NA	NA	NA	NA
POTASSIUM	**NC**	2900 U	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	0.48 U	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	**NC**	10000	NA	NA	NA	NA	NA	NA
SILVER	**100**	0.03 U	NA	NA	NA	NA	NA	NA
SODIUM	**NC**	11000	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	0.28 U	NA	NA	NA	NA	NA	NA
VANADIUM	**3.7**	0.63 J	NA	NA	NA	NA	NA	NA
ZINC	**5000**	120	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	55	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	0.87 U	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	18	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	0.41 J	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	0.035 U	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	0.038 U	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	0.02 J	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	2.9	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	110	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	0.047 UJ	0.047 UJ	0.047 UJ

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW69A MRC-MW69A-041117 20170411	MRC-MW69B MRC-MW69B-041117 20170411	MRC-MW70A MRC-MW70A-041417 20170414	MRC-MW70B MRC-MW70B- 20170414	MRC-MW71A MRC-MW71A-040617 20170406	MRC-MW71B MRC-MW71B-040617 20170406	MRC-MW72B MRC-MW72B-041817 20170418
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	1 J	23 U
1,1-DICHLOROETHANE	**90**	0.25 U	0.25 U	0.35 J	1.4	0.25 U	6.9	25 U
1,1-DICHLOROETHENE	**7**	0.27 U	0.27 U	0.27 U	1.9	0.27 J	**68**	27 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.34 U	27 U
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.33 U	26 U
1,2-DICHLOROETHANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.74 J	30 U
1,2-DICHLOROPROPANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.38 U	30 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.4 U	32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.29 U	23 U
2-BUTANONE	**700**	1 U	1 U	1 U	1 U	1 U	1.3 U	100 U
4-METHYL-2-PENTANONE	**630**	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.89 U	71 U
ACETONE	**550**	1.8 U	1.8 U	1.8 U	1.8 U	2.5 J	2.2 U	180 U
BENZENE	**5**	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.35 U	28 U
CARBON DISULFIDE	**100**	0.34 UJ	0.34 UJ	0.34 U	0.34 U	0.34 UJ	0.43 UJ	34 U
CARBON TETRACHLORIDE	**5**	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.44 U	35 U
CHLOROBENZENE	**100**	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.4 U	32 U
CHLOROETHANE	**3.6**	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.51 U	41 U
CHLOROFORM	**80**	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.39 U	31 U
CIS-1,2-DICHLOROETHENE	**70**	0.3 U	0.3 U	0.44 J	2.1	0.3 U	11	**260**
CYCLOHEXANE	**NC**	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.55 U	44 U
DICHLORODIFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.63 U	50 UJ
ETHYLBENZENE	**700**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.33 U	26 U
ISOPROPYLBENZENE	**66**	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.26 U	21 U
METHYL CYCLOHEXANE	**NC**	0.45 U	0.45 U	0.45 U	0.45 U	0.45 UJ	0.56 UJ	45 U
METHYL TERT-BUTYL ETHER	**20**	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.34 U	27 U
TETRACHLOROETHENE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 J	30 U
TOLUENE	**1000**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.29 U	23 U
TOTAL XYLENES	**10000**	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.3 U	24 U
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.36 U	29 U
TRICHLOROETHENE	**5**	0.33 U	0.33 U	0.33 U	3.9	0.33 U	**81**	**3000**
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.63 U	50 UJ
VINYL CHLORIDE	**2**	0.45 U	0.45 U	0.45 U	**3.5**	0.45 U	0.56 U	45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	0.14 U
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	0.13 U
METHANE	**NC**	NA	NA	NA	NA	NA	NA	1.2
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	**6.3**	0.49	0.94	**5**	0.12 J	**35**	0.21
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	NA	NA	0.27 U	0.28 U	**8.2**	0.71 U	0.27 U
ARSENIC	**10**	NA	NA	4.9 J	**11**	2.3 J	0.35 U	0.35 U
BARIUM	**2000**	NA	NA	110	160	95	84	19

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW69A MRC-MW69A-041117 20170411	MRC-MW69B MRC-MW69B-041117 20170411	MRC-MW70A MRC-MW70A-041417 20170414	MRC-MW70B MRC-MW70B- 20170414	MRC-MW71A MRC-MW71A-040617 20170406	MRC-MW71B MRC-MW71B-040617 20170406	MRC-MW72B MRC-MW72B-041817 20170418
BERYLLIUM	**4**	NA	NA	0.4 U	0.68 U	0.63 U	0.4 U	0.77 U
CADMIUM	**5**	NA	NA	0.31 U	0.31 U	0.94 U	0.31 U	0.31 U
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	2200 J
CHROMIUM	**100**	NA	NA	1.1 J	8.9	16	0.26 U	0.55 J
COBALT	**NC**	NA	NA	10	21	3.4	61	7
COPPER	**1300**	NA	NA	1.6 U	6.5	15	0.36 U	1.3 J
IRON	**300**	NA	NA	NA	NA	NA	NA	250
LEAD	**15**	NA	NA	0.5 J	4.4	**23**	0.21 U	0.59 U
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	1000 J
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	43
MERCURY	**2**	NA	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	**NC**	NA	NA	0.51 U	0.54 J	3.4 U	0.51 U	0.51 U
NICKEL	**73**	NA	NA	6.9	66	16	**74**	12
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	1500 J
SELENIUM	**50**	NA	NA	0.48 U	0.48 U	2 J	0.48 U	0.48 U
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	8800
SILVER	**100**	NA	NA	0.03 U	0.047 U	0.35 J	0.03 U	0.03 U
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	8300
THALLIUM	**2**	NA	NA	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
VANADIUM	**3.7**	NA	NA	1.8 J	**13**	**30**	0.54 U	0.8 J
ZINC	**5000**	NA	NA	14 J	93	480	150	61
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	5.3
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	0.87 U
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	14
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	0.27 J
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	0.44
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	0.11
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	0.056 U
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	1.3
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	22
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW73A MRC-MW73A-032317 20170323	MRC-MW73B MRC-MW73B-032317 20170323	MRC-MW74A MRC-MW74A-032217 20170322	MRC-MW74B MRC-MW74B-032217 20170322	MRC-MW74C MRC-MW74C-032217 20170322	MRC-MW76A MRC-MW76A-030817 20170308	MRC-MW76B MRC-MW76B-030817 20170308
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	NA	0.23 U	0.77 U	580 U	NA	0.23 U	0.23 U
1,1-DICHLOROETHANE	**90**	NA	0.25 U	0.83 U	630 U	NA	0.25 U	2.2
1,1-DICHLOROETHENE	**7**	NA	0.27 U	0.9 U	680 U	NA	0.27 U	1.3
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	NA	0.27 U	0.9 U	680 U	NA	0.27 U	0.27 U
1,2-DICHLOROBENZENE	**600**	NA	0.26 U	0.87 U	650 U	NA	0.26 U	0.26 U
1,2-DICHLOROETHANE	**5**	NA	0.3 U	1 U	750 U	NA	0.3 U	0.3 U
1,2-DICHLOROPROPANE	**5**	NA	0.3 U	1 U	750 U	NA	0.3 U	0.3 U
1,3-DICHLOROBENZENE	**1.8**	NA	0.32 U	1.1 U	800 U	NA	0.32 U	0.32 U
1,4-DICHLOROBENZENE	**75**	NA	0.23 U	0.77 U	580 U	NA	0.23 U	0.23 U
2-BUTANONE	**700**	NA	1 UJ	3.4 U	2600 U	NA	1 UJ	1 UJ
4-METHYL-2-PENTANONE	**630**	NA	0.71 U	2.4 U	1800 U	NA	0.71 U	0.71 U
ACETONE	**550**	NA	1.8 UJ	5.9 U	4400 U	NA	1.8 U	1.8 U
BENZENE	**5**	NA	0.28 U	0.93 U	700 U	NA	0.28 U	0.28 U
CARBON DISULFIDE	**100**	NA	0.34 U	1.1 U	850 U	NA	0.34 U	0.34 U
CARBON TETRACHLORIDE	**5**	NA	0.35 U	1.2 U	880 U	NA	0.35 U	0.35 U
CHLOROBENZENE	**100**	NA	0.32 U	1.1 U	800 U	NA	0.32 U	0.32 U
CHLOROETHANE	**3.6**	NA	0.41 U	1.4 U	1000 U	NA	0.41 UJ	0.41 UJ
CHLOROFORM	**80**	NA	0.31 U	1 U	780 U	NA	0.31 U	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	NA	0.79 J	2.8 J	750 U	NA	0.3 U	1.4
CYCLOHEXANE	**NC**	NA	0.44 U	1.5 U	1100 U	NA	0.9 J	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	NA	0.5 U	1.7 U	1300 U	NA	0.5 UJ	0.5 UJ
ETHYLBENZENE	**700**	NA	0.26 U	0.87 U	650 U	NA	0.26 U	0.26 U
ISOPROPYLBENZENE	**66**	NA	0.21 U	0.7 U	530 U	NA	0.21 U	0.21 U
METHYL CYCLOHEXANE	**NC**	NA	0.45 U	1.5 U	1100 U	NA	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	**20**	NA	0.27 U	0.9 U	680 U	NA	0.27 U	0.27 U
TETRACHLOROETHENE	**5**	NA	0.3 U	1 U	750 U	NA	0.3 U	0.3 U
TOLUENE	**1000**	NA	0.23 U	0.77 U	580 U	NA	0.23 U	0.23 U
TOTAL XYLENES	**10000**	NA	0.24 U	0.8 U	600 U	NA	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	NA	0.29 U	0.97 U	730 U	NA	0.29 U	0.29 U
TRICHLOROETHENE	**5**	NA	**30**	**84**	**38000**	NA	0.33 U	**13**
TRICHLOROFLUOROMETHANE	**NC**	NA	0.5 U	1.7 U	1300 U	NA	0.5 U	0.5 U
VINYL CHLORIDE	**2**	NA	0.45 U	1.5 U	1100 U	NA	0.45 U	0.45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	0.057 U	0.31	0.057 U	0.26	NA	NA	NA
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	0.0059 U	0.0055 U	0.0056 U	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	0.016 U	0.015 U	0.016 U	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	0.0061 U	0.0057 U	0.0058 U	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	0.015 U	0.014 J	0.015 U	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	0.014 U	0.013 U	0.014 U	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	0.0071 U	0.0066 U	0.0068 U	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	0	0.014	0	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	2.4	0.63 U	0.84 U	0.39 U	NA	NA	NA
ARSENIC	**10**	1.1 J	0.35 UJ	0.86 J	0.46 J	NA	NA	NA
BARIUM	**2000**	37 J	39 J	57	46	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW73A MRC-MW73A-032317 20170323	MRC-MW73B MRC-MW73B-032317 20170323	MRC-MW74A MRC-MW74A-032217 20170322	MRC-MW74B MRC-MW74B-032217 20170322	MRC-MW74C MRC-MW74C-032217 20170322	MRC-MW76A MRC-MW76A-030817 20170308	MRC-MW76B MRC-MW76B-030817 20170308
BERYLLIUM	**4**	0.4 U	2.2	0.4 U	0.4 U	NA	NA	NA
CADMIUM	**5**	0.31 UJ	0.31 UJ	0.31 U	0.31 U	NA	NA	NA
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	3.7 J	0.45 J	1.1 J	0.96 J	NA	NA	NA
COBALT	**NC**	1.6 J	19 J	1.7	3.2	NA	NA	NA
COPPER	**1300**	2.8 J	6.7 J	2.3	1.6 U	NA	NA	NA
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	1.3	0.41 J	0.64 U	0.75 U	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	0.13 U	0.13 U	0.13 U	0.13 U	NA	NA	NA
MOLYBDENUM	**NC**	0.94 U	0.51 UJ	1.3 U	0.51 U	NA	NA	NA
NICKEL	**73**	4.5 J	25 J	0.65 J	8.7	NA	NA	NA
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	3 J	0.98 J	1 J	0.48 U	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
SILVER	**100**	0.03 UJ	0.03 UJ	0.03 U	0.03 U	NA	NA	NA
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	0.28 U	0.28 UJ	0.28 U	0.28 U	NA	NA	NA
VANADIUM	**3.7**	**5.7 J**	0.82 J	1 J	1.6 J	NA	NA	NA
ZINC	**5000**	13 J	51 J	13 U	54	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW77A	MRC-MW78B	MRC-MW79B	MRC-MW80A			MRC-MW80B
SAMPLE ID	Groundwater	MRC-MW77A-040717	MRC-MW78B-031317	MRC-MW79B-032817	MRC-MW80A-041417	MRC-MW80A-	MRC-MW80A-041417-	MRC-MW80B-041417
SAMPLE DATE	Standard[1,2]	20170407	20170313	20170328	20170414	20170414	20170414	20170414
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	0.23 U	12 U	NA	NA	NA	0.23 U
1,1-DICHLOROETHANE	**90**	11	0.25 U	13 U	NA	NA	NA	1.2
1,1-DICHLOROETHENE	**7**	1.4	0.27 U	14 U	NA	NA	NA	**17**
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	18 U	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	14 U	NA	NA	NA	0.27 U
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	13 U	NA	NA	NA	0.26 U
1,2-DICHLOROETHANE	**5**	0.3 U	0.3 U	15 U	NA	NA	NA	0.34 J
1,2-DICHLOROPROPANE	**5**	0.3 U	0.3 U	15 U	NA	NA	NA	0.3 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	16 U	NA	NA	NA	0.32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	12 U	NA	NA	NA	0.23 U
2-BUTANONE	**700**	1 U	1 U	51 U	NA	NA	NA	1 U
4-METHYL-2-PENTANONE	**630**	0.71 U	0.71 U	36 U	NA	NA	NA	0.71 U
ACETONE	**550**	1.8 U	1.8 U	88 U	NA	NA	NA	1.8 U
BENZENE	**5**	**11**	0.28 U	14 U	NA	NA	NA	0.28 U
CARBON DISULFIDE	**100**	0.34 UJ	0.34 U	17 UJ	NA	NA	NA	0.34 U
CARBON TETRACHLORIDE	**5**	0.35 U	0.35 U	18 U	NA	NA	NA	0.35 U
CHLOROBENZENE	**100**	0.32 U	0.32 U	16 U	NA	NA	NA	0.32 U
CHLOROETHANE	**3.6**	0.41 U	1.2	21 U	NA	NA	NA	0.41 U
CHLOROFORM	**80**	0.31 U	0.31 U	16 U	NA	NA	NA	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	2.3	1.3	**1900**	NA	NA	NA	1.8
CYCLOHEXANE	**NC**	0.44 U	0.44 U	22 UJ	NA	NA	NA	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	0.5 U	0.5 U	25 UJ	NA	NA	NA	0.5 U
ETHYLBENZENE	**700**	0.26 U	0.26 U	13 U	NA	NA	NA	0.26 U
ISOPROPYLBENZENE	**66**	0.4 J	0.21 U	11 U	NA	NA	NA	0.21 U
METHYL CYCLOHEXANE	**NC**	0.45 UJ	0.45 UJ	23 UJ	NA	NA	NA	0.45 U
METHYL TERT-BUTYL ETHER	**20**	**74**	0.27 U	14 U	NA	NA	NA	0.27 U
TETRACHLOROETHENE	**5**	0.3 U	0.3 U	15 U	NA	NA	NA	0.3 U
TOLUENE	**1000**	0.23 U	0.23 U	12 U	NA	NA	NA	0.23 U
TOTAL XYLENES	**10000**	0.24 U	0.24 U	12 U	NA	NA	NA	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	0.93 J	16 J	NA	NA	NA	0.29 U
TRICHLOROETHENE	**5**	5	**6.7**	**1600**	NA	NA	NA	**55**
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	0.5 U	25 U	NA	NA	NA	0.5 U
VINYL CHLORIDE	**2**	0.84 J	0.98 J	**38 J**	NA	NA	NA	0.45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	NA	NA	**14**	0.67	0.66	0.65	**14**
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	NA	0.4 U	NA	NA	NA	NA	NA
ARSENIC	**10**	NA	2.1 J	NA	NA	NA	NA	NA
BARIUM	**2000**	NA	190 J	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW77A	MRC-MW78B	MRC-MW79B	MRC-MW80A			MRC-MW80B
SAMPLE ID	Groundwater	MRC-MW77A-040717	MRC-MW78B-031317	MRC-MW79B-032817	MRC-MW80A-041417	MRC-MW80A-	MRC-MW80A-041417-	MRC-MW80B-041417
SAMPLE DATE	Standard[1,2]	20170407	20170313	20170328	20170414	20170414	20170414	20170414
BERYLLIUM	**4**	NA	0.4 U	NA	NA	NA	NA	NA
CADMIUM	**5**	NA	0.31 UJ	NA	NA	NA	NA	NA
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	NA	2.1 J	NA	NA	NA	NA	NA
COBALT	**NC**	NA	57 J	NA	NA	NA	NA	NA
COPPER	**1300**	NA	2.9 J	NA	NA	NA	NA	NA
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	NA	1.4 J	NA	NA	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	NA	2.4 U	NA	NA	NA	NA	NA
NICKEL	**73**	NA	11 J	NA	NA	NA	NA	NA
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	NA	0.84 U	NA	NA	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
SILVER	**100**	NA	0.03 UJ	NA	NA	NA	NA	NA
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	NA	0.28 UJ	NA	NA	NA	NA	NA
VANADIUM	**3.7**	NA	3.1 J	NA	NA	NA	NA	NA
ZINC	**5000**	NA	42 J	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW81A MRC-MW81A-031317 20170313	MRC-MW81B MRC-MW81B-041917 20170419	MRC-MW87A MRC-MW87A-040717 20170407	MRC-MW87B MRC-MW87B-040617 20170406	MRC-MW88B MRC-MW88B-031017 20170310	MRC-MW90B MRC-MW90B-040417 20170404	MRC-MW92C MRC-MW92C- 20170419
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	NA	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1-DICHLOROETHANE	**90**	NA	5.8 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	**7**	NA	3.3 J	0.27 U	0.27 U	0.27 U	3	0.27 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	NA	2.7 U	0.27 U	0.27 U	0.27 U	0.27 UJ	0.27 U
1,2-DICHLOROBENZENE	**600**	NA	2.6 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	**5**	NA	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	**5**	NA	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3-DICHLOROBENZENE	**1.8**	NA	3.2 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	**75**	NA	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	**700**	NA	10 U	1 U	1 U	1 UJ	1 U	1 U
4-METHYL-2-PENTANONE	**630**	NA	7.1 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	**550**	NA	18 U	1.8 U	25	1.8 U	1.9 J	1.8 U
BENZENE	**5**	NA	2.8 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
CARBON DISULFIDE	**100**	NA	3.4 U	0.34 UJ	0.34 UJ	0.34 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	**5**	NA	3.5 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	**100**	NA	3.2 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROETHANE	**3.6**	NA	4.1 U	0.41 U	0.41 U	0.41 UJ	0.41 U	0.41 U
CHLOROFORM	**80**	NA	3.1 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	NA	**300**	0.3 U	0.3 U	0.3 U	0.87 J	5.7
CYCLOHEXANE	**NC**	NA	4.4 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	NA	5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U
ETHYLBENZENE	**700**	NA	2.6 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	**66**	NA	2.1 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
METHYL CYCLOHEXANE	**NC**	NA	4.5 U	0.45 UJ	0.45 UJ	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	**20**	NA	2.7 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
TETRACHLOROETHENE	**5**	NA	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	**1000**	NA	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	**10000**	NA	2.4 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	NA	8.7 J	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TRICHLOROETHENE	**5**	NA	**27**	0.33 U	**17**	0.33 U	**28**	**5.7**
TRICHLOROFLUOROMETHANE	**NC**	NA	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	**2**	NA	**220**	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	24	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	170	NA	NA	NA	NA	NA
METHANE	**NC**	NA	3600	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	2	**3.9**	0.75	0.15 J	NA	1.9	0.095 J
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	1.3 U	0.48 U	NA	NA	NA	NA	0.27 U
ARSENIC	**10**	3.1 J	0.6 J	NA	NA	NA	NA	0.35 U
BARIUM	**2000**	160	190	NA	NA	NA	NA	97

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW81A MRC-MW81A-031317 20170313	MRC-MW81B MRC-MW81B-041917 20170419	MRC-MW87A MRC-MW87A-040717 20170407	MRC-MW87B MRC-MW87B-040617 20170406	MRC-MW88B MRC-MW88B-031017 20170310	MRC-MW90B MRC-MW90B-040417 20170404	MRC-MW92C MRC-MW92C- 20170419
BERYLLIUM	**4**	0.98 J	0.41 U	NA	NA	NA	NA	0.4 U
CADMIUM	**5**	0.31 U	0.31 U	NA	NA	NA	NA	0.31 U
CALCIUM	**NC**	NA	33000	NA	NA	NA	NA	NA
CHROMIUM	**100**	0.41 J	0.49 J	NA	NA	NA	NA	1.2 J
COBALT	**NC**	4.3	13	NA	NA	NA	NA	2.3
COPPER	**1300**	0.44 U	0.36 U	NA	NA	NA	NA	0.36 U
IRON	**300**	NA	**32000**	NA	NA	NA	NA	NA
LEAD	**15**	0.32 U	0.53 U	NA	NA	NA	NA	0.41 U
MAGNESIUM	**NC**	NA	4600 J	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	**1400**	NA	NA	NA	NA	NA
MERCURY	**2**	NA	0.13 UJ	NA	NA	NA	NA	0.13 UJ
MOLYBDENUM	**NC**	0.65 U	0.6 J	NA	NA	NA	NA	0.51 U
NICKEL	**73**	12	24	NA	NA	NA	NA	12
POTASSIUM	**NC**	NA	1500 J	NA	NA	NA	NA	NA
SELENIUM	**50**	3.4 U	0.51 J	NA	NA	NA	NA	0.48 U
SILICON DIOXIDE	**NC**	NA	14000	NA	NA	NA	NA	NA
SILVER	**100**	0.03 U	0.03 U	NA	NA	NA	NA	0.03 U
SODIUM	**NC**	NA	76000	NA	NA	NA	NA	NA
THALLIUM	**2**	0.28 U	0.28 U	NA	NA	NA	NA	0.28 U
VANADIUM	**3.7**	0.54 U	0.54 U	NA	NA	NA	NA	0.54 U
ZINC	**5000**	21	6.2 U	NA	NA	NA	NA	6.8 J
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	150	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	0.87 U	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	77	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	1.2	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	0.046 J	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	0.038 U	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	0.097 J	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	2.7	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	290	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW93A			MRC-MW94B	MRC-MW95B	MRC-MW96A	MRC-MW96B
SAMPLE ID	Groundwater	MRC-MW93A-041417	MRC-MW93A-041417-	MRC-MW93A-041417-	MRC-MW94B-030907	MRC-MW95B-031717	MRC-MW96A-040417	MRC-MW96B-040417
SAMPLE DATE	Standard[1,2]	20170414	20170414	20170419	20170309	20170317	20170404	20170404
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	120 U	2.9 U
1,1-DICHLOROETHANE	**90**	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	130 U	3.1 U
1,1-DICHLOROETHENE	**7**	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	140 U	3.4 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	0.27 U	0.27 U	0.27 UJ	140 UJ	3.4 UJ
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	130 U	3.3 U
1,2-DICHLOROETHANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	150 U	3.8 U
1,2-DICHLOROPROPANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	150 U	3.8 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	160 U	4 U
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	120 U	2.9 U
2-BUTANONE	**700**	1 U	1 U	1 U	1 U	1 U	510 U	13 U
4-METHYL-2-PENTANONE	**630**	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	360 U	8.9 U
ACETONE	**550**	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	880 U	22 U
BENZENE	**5**	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	140 U	**720**
CARBON DISULFIDE	**100**	0.42 J	0.30	0.34 U	0.34 U	0.34 U	170 U	4.3 U
CARBON TETRACHLORIDE	**5**	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	180 U	4.4 U
CHLOROBENZENE	**100**	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	160 U	4 U
CHLOROETHANE	**3.6**	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	210 U	5.1 U
CHLOROFORM	**80**	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	160 U	3.9 U
CIS-1,2-DICHLOROETHENE	**70**	1.4 J	3.7	5.9 J	0.3 U	0.3 U	**29000**	11 J
CYCLOHEXANE	**NC**	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	220 U	11 J
DICHLORODIFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	250 UJ	6.3 UJ
ETHYLBENZENE	**700**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	130 U	6.2 J
ISOPROPYLBENZENE	**66**	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	110 U	10 J
METHYL CYCLOHEXANE	**NC**	0.45 U	0.45 U	0.45 U	0.45 U	0.45 UJ	230 U	5.6 U
METHYL TERT-BUTYL ETHER	**20**	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	140 U	**34**
TETRACHLOROETHENE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	150 U	3.8 U
TOLUENE	**1000**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	120 U	2.9 U
TOTAL XYLENES	**10000**	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	120 U	110
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	150 U	3.6 U
TRICHLOROETHENE	**5**	2.4 J	4.1	**5.7 J**	0.33 U	2.6	**3300**	**12 J**
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	250 U	6.3 U
VINYL CHLORIDE	**2**	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	230 U	5.6 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	NA	NA	NA	NA	NA	**4**	0.91
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	NA	NA	NA	NA	NA	NA	NA
ARSENIC	**10**	NA	NA	NA	NA	NA	NA	NA
BARIUM	**2000**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW93A			MRC-MW94B	MRC-MW95B	MRC-MW96A	MRC-MW96B
SAMPLE ID	Groundwater	MRC-MW93A-041417	MRC-MW93A-041417-	MRC-MW93A-041417-	MRC-MW94B-030907	MRC-MW95B-031717	MRC-MW96A-040417	MRC-MW96B-040417
SAMPLE DATE	Standard[1,2]	20170414	20170414	20170419	20170309	20170317	20170404	20170404
BERYLLIUM	**4**	NA	NA	NA	NA	NA	NA	NA
CADMIUM	**5**	NA	NA	NA	NA	NA	NA	NA
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA
COBALT	**NC**	NA	NA	NA	NA	NA	NA	NA
COPPER	**1300**	NA	NA	NA	NA	NA	NA	NA
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	NA	NA	NA	NA	NA	NA	NA
NICKEL	**73**	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	NA	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
SILVER	**100**	NA	NA	NA	NA	NA	NA	NA
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	NA	NA	NA	NA	NA	NA	NA
VANADIUM	**3.7**	NA	NA	NA	NA	NA	NA	NA
ZINC	**5000**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW98A MRC-MW98A-042017 20170420	MRC-MW98B MRC-MW98B-042017 20170420	MRC-MW100A MRC-MW100A-041817 20170418	MRC-MW100B MRC-MW100B-041817 20170418	MRC-MW100B MRC-MW100B-041817- 20170418	MRC-MW100B MRC-MW100B-041817- 20170418	MRC-MW101A MRC-MW101A-032817 20170328
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	14	0.23 U	1.2 U	1.2 U	NA	0.23 U
1,1-DICHLOROETHANE	**90**	0.82 J	74	2.1	25	25	NA	0.58 J
1,1-DICHLOROETHENE	**7**	1	**170**	1.4	**76**	**76**	NA	0.66 J
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	0.35 U
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	3.4 U	0.27 U	1.4 U	1.4 U	NA	0.27 U
1,2-DICHLOROBENZENE	**600**	0.26 U	3.3 U	0.26 U	1.3 U	1.3 U	NA	0.26 U
1,2-DICHLOROETHANE	**5**	0.3 U	3.8 U	0.3 U	1.5 U	1.5 U	NA	0.3 U
1,2-DICHLOROPROPANE	**5**	0.3 U	3.8 U	0.3 U	1.5 U	1.5 U	NA	0.3 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	4 U	0.32 U	1.6 U	1.6 U	NA	0.32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	2.9 U	0.23 U	1.2 U	1.2 U	NA	0.23 U
2-BUTANONE	**700**	1 U	13 U	1 U	5.1 U	5.1 U	NA	1 U
4-METHYL-2-PENTANONE	**630**	0.71 U	8.9 U	0.71 U	3.6 U	3.6 U	NA	0.71 U
ACETONE	**550**	1.8 U	22 U	1.8 U	8.8 U	8.8 U	NA	1.8 U
BENZENE	**5**	0.28 U	3.5 U	0.28 U	1.4 U	1.4 U	NA	0.28 U
CARBON DISULFIDE	**100**	0.34 U	4.3 U	0.34 U	1.7 U	1.7 U	NA	0.34 UJ
CARBON TETRACHLORIDE	**5**	0.35 U	4.4 U	0.35 U	1.8 U	1.8 U	NA	0.35 U
CHLOROBENZENE	**100**	0.32 U	4 U	0.32 U	1.6 U	1.6 U	NA	0.32 U
CHLOROETHANE	**3.6**	0.41 U	**19**	0.41 U	2.1 U	2.1 U	NA	0.41 U
CHLOROFORM	**80**	0.31 U	3.9 U	0.31 U	1.6 U	1.6 U	NA	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	0.3 U	17	0.92 J	34	34	NA	28
CYCLOHEXANE	**NC**	0.44 U	5.5 U	0.44 U	2.2 U	2.2 U	NA	0.44 UJ
DICHLORODIFLUOROMETHANE	**NC**	0.5 U	6.3 U	0.5 UJ	2.5 UJ	2.5 UJ	NA	0.5 UJ
ETHYLBENZENE	**700**	0.26 U	3.3 U	0.26 U	1.3 U	1.3 U	NA	0.26 U
ISOPROPYLBENZENE	**66**	0.21 U	2.6 U	0.21 U	1.1 U	1.1 U	NA	0.21 U
METHYL CYCLOHEXANE	**NC**	0.45 U	5.6 U	0.45 U	2.3 U	2.3 U	NA	0.45 UJ
METHYL TERT-BUTYL ETHER	**20**	0.27 U	3.4 U	0.27 U	1.4 U	1.4 U	NA	0.27 U
TETRACHLOROETHENE	**5**	0.3 U	4 J	0.3 U	1.5 U	1.5 U	NA	0.3 U
TOLUENE	**1000**	0.23 U	2.9 U	0.23 U	1.2 U	1.2 U	NA	0.23 U
TOTAL XYLENES	**10000**	0.24 U	3 U	0.24 U	1.2 U	1.2 U	NA	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	3.6 U	0.29 U	1.5 U	1.5 U	NA	1.6
TRICHLOROETHENE	**5**	1.2	**350**	**6**	**200**	**200**	NA	4.4
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	6.3 U	0.5 UJ	2.5 UJ	2.5 UJ	NA	0.5 U
VINYL CHLORIDE	**2**	0.45 U	5.6 U	0.45 U	2.3 U	2.3 U	NA	1.9
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	1.1	**140**	2.4	**89**	**90**	**90**	**3.7**
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	NA	NA	NA	NA	NA	NA	NA
ARSENIC	**10**	NA	NA	NA	NA	NA	NA	NA
BARIUM	**2000**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW98A	MRC-MW98B	MRC-MW100A	MRC-MW100B			MRC-MW101A
SAMPLE ID	Groundwater	MRC-MW98A-042017	MRC-MW98B-042017	MRC-MW100A-041817	MRC-MW100B-041817	MRC-MW100B-041817-	MRC-MW100B-041817-	MRC-MW101A-032817
SAMPLE DATE	Standard[1,2]	20170420	20170420	20170418	20170418	20170418	20170418	20170328
BERYLLIUM	**4**	NA	NA	NA	NA	NA	NA	NA
CADMIUM	**5**	NA	NA	NA	NA	NA	NA	NA
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA
COBALT	**NC**	NA	NA	NA	NA	NA	NA	NA
COPPER	**1300**	NA	NA	NA	NA	NA	NA	NA
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	NA	NA	NA	NA	NA	NA	NA
NICKEL	**73**	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	NA	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
SILVER	**100**	NA	NA	NA	NA	NA	NA	NA
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	NA	NA	NA	NA	NA	NA	NA
VANADIUM	**3.7**	NA	NA	NA	NA	NA	NA	NA
ZINC	**5000**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW101B MRC-MW101B-032817 20170328	MRC-MW102A MRC-MW102A- 20170328	MRC-MW102A MRC-MW102A-032817- 20170328	MRC-MW102A MRC-MW102A-032817- 20170328	MRC-MW102B MRC-MW102B-032817 20170328	MRC-MW102B MRC-MW102B-032917 20170329	MRC-MW103A MRC-MW103A-030907 20170309
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	0.23 U	0.23 U	0.23 U	NA	2.9 U	NA
1,1-DICHLOROETHANE	**90**	5.3	0.25 U	0.25 U	0.25 U	NA	3.1 U	NA
1,1-DICHLOROETHENE	**7**	1.8	0.27 U	0.27 U	0.27 U	NA	3.4 U	NA
1,2,3-TRICHLOROBENZENE	**NC**	0.35 U	0.35 U	0.35 U	0.35 U	NA	NA	0.35 U
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	0.27 U	0.27 U	NA	4.4 J	0.27 U
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	0.26 U	0.26 U	NA	3.3 U	0.26 U
1,2-DICHLOROETHANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	NA	3.8 U	NA
1,2-DICHLOROPROPANE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	NA	3.8 U	NA
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	0.32 U	0.32 U	NA	4 U	0.32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	0.23 U	0.23 U	NA	2.9 U	0.23 U
2-BUTANONE	**700**	1 U	1 U	1 U	1 U	NA	13 U	NA
4-METHYL-2-PENTANONE	**630**	0.71 U	0.71 U	0.71 U	0.71 U	NA	8.9 U	NA
ACETONE	**550**	1.8 U	1.8 U	1.8 U	1.8 U	NA	22 U	NA
BENZENE	**5**	0.28 U	0.28 U	0.28 U	0.28 U	NA	3.5 U	NA
CARBON DISULFIDE	**100**	0.34 UJ	0.34 UJ	0.34 U	0.34 UJ	NA	4.3 U	NA
CARBON TETRACHLORIDE	**5**	0.35 U	0.35 U	0.35 U	0.35 U	NA	4.4 U	NA
CHLOROBENZENE	**100**	0.32 U	0.32 U	0.32 U	0.32 U	NA	4 U	0.32 U
CHLOROETHANE	**3.6**	0.41 U	0.41 U	0.41 U	0.41 U	NA	5.1 U	NA
CHLOROFORM	**80**	0.31 U	0.31 U	0.31 U	0.31 U	NA	3.9 U	NA
CIS-1,2-DICHLOROETHENE	**70**	1.6	1.9	1.9	1.8	NA	**520**	NA
CYCLOHEXANE	**NC**	0.44 UJ	1.4 J	1.3	1.1 J	NA	5.5 U	NA
DICHLORODIFLUOROMETHANE	**NC**	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	NA	6.3 U	NA
ETHYLBENZENE	**700**	0.26 U	0.26 U	0.26 U	0.26 U	NA	3.3 U	NA
ISOPROPYLBENZENE	**66**	0.21 U	0.21 U	0.21 U	0.21 U	NA	2.6 U	NA
METHYL CYCLOHEXANE	**NC**	0.45 UJ	0.47 J	0.35	0.45 UJ	NA	5.6 U	NA
METHYL TERT-BUTYL ETHER	**20**	0.27 U	0.27 U	0.27 U	0.27 U	NA	3.4 U	NA
TETRACHLOROETHENE	**5**	0.3 U	0.3 U	0.3 U	0.3 U	NA	3.8 U	NA
TOLUENE	**1000**	0.23 U	0.23 U	0.23 U	0.23 U	NA	2.9 U	NA
TOTAL XYLENES	**10000**	0.24 U	0.24 U	0.24 U	0.24 U	NA	3 U	NA
TRANS-1,2-DICHLOROETHENE	**100**	0.29 U	0.29 U	0.29 U	0.29 U	NA	4 J	NA
TRICHLOROETHENE	**5**	1.7	0.33 U	0.33 U	0.33 U	NA	**150**	NA
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	0.5 U	NA	6.3 U	NA
VINYL CHLORIDE	**2**	0.45 U	0.45 U	0.45 U	0.45 U	NA	5.6 U	NA
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	**8**	NA	NA	NA	3	NA	NA
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	0.0054 U
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	0.015 U
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	0.0056 U
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	0.014 U
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	0.013 U
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	0.0064 U
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	0
Total metals (µg/L)								
ANTIMONY	**6**	NA	NA	NA	NA	NA	NA	NA
ARSENIC	**10**	NA	NA	NA	NA	NA	NA	NA
BARIUM	**2000**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW101B	MRC-MW102A	MRC-MW102A		MRC-MW102B		MRC-MW103A
SAMPLE ID	Groundwater	MRC-MW101B-032817	MRC-MW102A-	MRC-MW102A-032817-	MRC-MW102A-032817-	MRC-MW102B-032817	MRC-MW102B-032917	MRC-MW103A-030907
SAMPLE DATE	Standard[1,2]	20170328	20170328	20170328	20170328	20170328	20170329	20170309
BERYLLIUM	**4**	NA	NA	NA	NA	NA	NA	NA
CADMIUM	**5**	NA	NA	NA	NA	NA	NA	NA
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA
COBALT	**NC**	NA	NA	NA	NA	NA	NA	NA
COPPER	**1300**	NA	NA	NA	NA	NA	NA	NA
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	NA	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	NA	NA	NA	NA	NA	NA	NA
NICKEL	**73**	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	NA	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
SILVER	**100**	NA	NA	NA	NA	NA	NA	NA
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	NA	NA	NA	NA	NA	NA	NA
VANADIUM	**3.7**	NA	NA	NA	NA	NA	NA	NA
ZINC	**5000**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW103A		MRC-MW103B	MRC-MW104A	MRC-MW104B	MRC-MW106B/C	
SAMPLE ID	Groundwater	MRC-MW103A-	MRC-MW103A-030907-	MRC-MW103B-030907	MRC-MW104A-032317	MRC-MW104B-032317	MRC-MW106B/C-	MRC-MW106B/C-
SAMPLE DATE	Standard[1,2]	20170309	20170309	20170309	20170323	20170323	20170330	20170330
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	NA	NA	NA	0.23 U	0.23 U	0.23 U	0.23 U
1,1-DICHLOROETHANE	**90**	NA	NA	NA	0.25 U	0.25 U	0.58 J	0.56
1,1-DICHLOROETHENE	**7**	NA	NA	NA	0.27 U	0.27 U	0.27 U	0.27 U
1,2,3-TRICHLOROBENZENE	**NC**	0.35 U	0.35 U	0.35 U	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	**5**	NA	NA	NA	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	**5**	NA	NA	NA	0.3 U	0.3 U	0.3 U	0.3 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	**700**	NA	NA	NA	1 UJ	1 UJ	1 U	1 U
4-METHYL-2-PENTANONE	**630**	NA	NA	NA	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	**550**	NA	NA	NA	1.8 UJ	1.8 UJ	1.8 J	2.2
BENZENE	**5**	NA	NA	NA	0.28 U	0.28 U	0.28 U	0.28 U
CARBON DISULFIDE	**100**	NA	NA	NA	0.34 U	0.34 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	**5**	NA	NA	NA	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	**100**	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLOROETHANE	**3.6**	NA	NA	NA	0.41 U	0.41 U	0.41 U	0.41 U
CHLOROFORM	**80**	NA	NA	NA	0.31 U	0.31 U	0.31 U	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	NA	NA	NA	0.3 U	0.3 U	0.34 J	0.33
CYCLOHEXANE	**NC**	NA	NA	NA	0.44 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	**700**	NA	NA	NA	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	**66**	NA	NA	NA	0.21 U	0.21 U	0.21 U	0.21 U
METHYL CYCLOHEXANE	**NC**	NA	NA	NA	0.45 U	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	**20**	NA	NA	NA	0.27 U	0.27 U	0.27 U	0.27 U
TETRACHLOROETHENE	**5**	NA	NA	NA	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	**1000**	NA	NA	NA	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	**10000**	NA	NA	NA	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	NA	NA	NA	0.29 U	0.29 U	0.37 J	0.33
TRICHLOROETHENE	**5**	NA	NA	NA	0.33 U	0.33 U	0.33 U	0.25
TRICHLOROFLUOROMETHANE	**NC**	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	**2**	NA	NA	NA	0.45 U	0.45 U	5.3	5.3
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	0.0054 U	0.0053 U	0.0054 U	0.0052 U	0.0054 U	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	0.015 U	0.015 U	0.015 U	0.014 U	0.015 U	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	0.0056 U	0.0055 U	0.0056 U	0.0054 U	0.0056 U	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	0.014 U	0.014 U	0.014 U	0.013 U	0.014 U	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	0.013 U	0.013 U	0.013 U	0.012 U	0.013 U	NA	NA
TRICHLOROBIPHENYLS	**0.5**	0.0064 U	0.0064 U	0.0065 U	0.0062 U	0.0065 U	NA	NA
TOTAL HOMOLOGS	**0.5**	0	0	0	0	0	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	NA	NA	NA	NA	NA	1.7 U	1.7 U
ARSENIC	**10**	NA	NA	NA	NA	NA	1.5 J	1.5
BARIUM	**2000**	NA	NA	NA	NA	NA	140	140

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION	MDE	MRC-MW103A		MRC-MW103B	MRC-MW104A	MRC-MW104B	MRC-MW106B/C	
SAMPLE ID SAMPLE DATE	Groundwater Standard[1,2]	MRC-MW103A-20170309	MRC-MW103A-030907-20170309	MRC-MW103B-030907 20170309	MRC-MW104A-032317 20170323	MRC-MW104B-032317 20170323	MRC-MW106B/C-20170330	MRC-MW106B/C-20170330
BERYLLIUM	**4**	NA	NA	NA	NA	NA	0.4 U	0.4 U
CADMIUM	**5**	NA	NA	NA	NA	NA	0.31 U	0.31 U
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	NA	NA	NA	NA	NA	0.45 J	0.41
COBALT	**NC**	NA	NA	NA	NA	NA	26	27
COPPER	**1300**	NA	NA	NA	NA	NA	0.52 U	0.48 U
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	NA	NA	NA	NA	NA	0.38 U	0.36 U
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	NA	NA	NA	NA	NA	0.13 U	0.13 U
MOLYBDENUM	**NC**	NA	NA	NA	NA	NA	0.66 U	0.67 U
NICKEL	**73**	NA	NA	NA	NA	NA	19	20
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	NA	NA	NA	NA	NA	0.48 U	0.48 U
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
SILVER	**100**	NA	NA	NA	NA	NA	0.038 U	0.034 U
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	NA	NA	NA	NA	NA	0.28 U	0.28 U
VANADIUM	**3.7**	NA	NA	NA	NA	NA	0.54 U	0.54 U
ZINC	**5000**	NA	NA	NA	NA	NA	8.3 U	9.7 U
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW106B/C MRC-MW106B/C-20170330	MRC-MW107B/C MRC-MW107B/C-20170330	MRC-MW109A MRC-MW109A-041417 20170414	MRC-MW109B MRC-MW109B-20170413	MRC-MW110A MRC-MW110A-031617 20170316	MRC-MW110B MRC-MW110B-031617 20170316	MRC-MW111A MRC-MW111A-042017 20170420
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	0.23 U	0.23 U	0.23 U	0.46 U	0.23 UJ	0.46 UJ	0.23 U
1,1-DICHLOROETHANE	**90**	0.54 J	0.25 U	0.25 U	0.5 U	0.64 J	0.5 U	0.25 U
1,1-DICHLOROETHENE	**7**	0.27 U	0.27 U	0.79 J	0.54 U	1.1	0.54 U	0.27 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	0.27 U	0.27 U	0.27 U	0.54 U	0.27 U	0.54 U	0.27 U
1,2-DICHLOROBENZENE	**600**	0.26 U	0.26 U	0.26 U	0.52 U	0.26 U	0.52 U	0.26 U
1,2-DICHLOROETHANE	**5**	0.3 U	0.3 U	0.3 U	0.6 U	0.3 U	0.6 U	0.3 U
1,2-DICHLOROPROPANE	**5**	0.3 U	0.3 U	0.3 U	0.6 U	0.3 U	0.6 U	0.3 U
1,3-DICHLOROBENZENE	**1.8**	0.32 U	0.32 U	0.32 U	0.64 U	0.32 U	0.64 U	0.32 U
1,4-DICHLOROBENZENE	**75**	0.23 U	0.23 U	0.23 U	0.46 U	0.23 U	0.46 U	0.23 U
2-BUTANONE	**700**	1 U	1 U	1 U	2 U	1 U	2 U	1 U
4-METHYL-2-PENTANONE	**630**	0.71 U	0.71 U	0.71 U	1.4 U	0.71 U	1.4 U	0.71 U
ACETONE	**550**	2.5 J	1.8 U	4.4 J	3.5 U	1.8 U	9.7 J	1.8 U
BENZENE	**5**	0.28 U	0.28 U	0.28 U	**34**	1.5	**42**	0.28 U
CARBON DISULFIDE	**100**	0.34 U	0.34 U	0.34 U	0.68 U	0.34 U	0.68 U	0.34 U
CARBON TETRACHLORIDE	**5**	0.35 U	0.35 U	0.35 U	0.7 U	0.35 UJ	0.7 UJ	0.35 U
CHLOROBENZENE	**100**	0.32 U	0.32 U	0.32 U	0.64 U	0.32 U	0.64 U	0.32 U
CHLOROETHANE	**3.6**	0.41 U	0.41 U	0.41 U	0.82 U	0.41 UJ	0.82 UJ	0.41 U
CHLOROFORM	**80**	0.31 U	0.31 U	0.31 U	0.62 U	0.31 U	0.69 J	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	0.31 J	0.3 U	55	**74**	11	6.4	0.3 U
CYCLOHEXANE	**NC**	0.44 U	0.44 U	0.44 U	0.88 U	0.44 U	0.88 U	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	1 U	0.5 UJ	1 U	0.5 U
ETHYLBENZENE	**700**	0.26 U	0.26 U	0.26 U	0.52 U	0.26 U	1.6 J	0.26 U
ISOPROPYLBENZENE	**66**	0.21 U	0.21 U	0.21 U	1.2 J	0.21 U	0.42 UJ	0.21 U
METHYL CYCLOHEXANE	**NC**	0.45 U	0.45 U	0.45 U	0.9 U	0.45 U	0.9 U	0.45 U
METHYL TERT-BUTYL ETHER	**20**	0.27 U	0.27 U	0.27 U	4.1	0.27 U	4.7	0.27 U
TETRACHLOROETHENE	**5**	0.3 U	0.3 U	0.3 U	0.6 U	0.3 U	0.6 U	0.3 U
TOLUENE	**1000**	0.23 U	0.23 U	0.27 J	0.46 U	0.23 U	0.46 U	0.23 U
TOTAL XYLENES	**10000**	0.24 U	0.24 U	0.24 U	2.3 J	0.24 U	4.2	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	0.29 J	0.29 U	1.4	6.6	0.45 J	0.58 U	0.29 U
TRICHLOROETHENE	**5**	0.33 J	0.33 U	0.33 U	**25**	**34**	**39**	0.33 U
TRICHLOROFLUOROMETHANE	**NC**	0.5 U	0.5 U	0.5 U	1 U	0.5 UJ	1 UJ	0.5 U
VINYL CHLORIDE	**2**	**5.2**	0.45 U	**20**	**4.8**	0.69 J	0.9 U	0.45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	NA	NA	NA	NA	**5.8**	**5.8**	0.64
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	NA	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	1.7 U	0.77 U	NA	NA	NA	NA	NA
ARSENIC	**10**	1.5 J	0.8 J	NA	NA	NA	NA	NA
BARIUM	**2000**	140	220	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW106B/C MRC-MW106B/C-20170330	MRC-MW107B/C MRC-MW107B/C-20170330	MRC-MW109A MRC-MW109A-041417 20170414	MRC-MW109B MRC-MW109B-20170413	MRC-MW110A MRC-MW110A-031617 20170316	MRC-MW110B MRC-MW110B-031617 20170316	MRC-MW111A MRC-MW111A-042017 20170420
BERYLLIUM	**4**	0.4 U	0.4 U	NA	NA	NA	NA	NA
CADMIUM	**5**	0.31 U	0.31 U	NA	NA	NA	NA	NA
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	0.37 J	3.4	NA	NA	NA	NA	NA
COBALT	**NC**	27	19	NA	NA	NA	NA	NA
COPPER	**1300**	0.44 U	4.2	NA	NA	NA	NA	NA
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	0.34 U	2.8	NA	NA	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	0.13 U	0.13 U	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	0.68 U	0.88 U	NA	NA	NA	NA	NA
NICKEL	**73**	21	55	NA	NA	NA	NA	NA
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	0.48 U	0.9 U	NA	NA	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
SILVER	**100**	0.03 U	0.051 U	NA	NA	NA	NA	NA
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	0.28 U	0.28 U	NA	NA	NA	NA	NA
VANADIUM	**3.7**	0.54 U	4.5 U	NA	NA	NA	NA	NA
ZINC	**5000**	11 U	**16000**	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW111B MRC-MW111B-042017 20170420	MRC-MW113A MRC-MW113A-032917 20170329	MRC-MW114A MRC-MW114A-032917 20170329	MRC-MW115A MRC-MW115A-031717 20170317	MRC-MW116A MRC-MW116A- 20170317	MRC-SEMW-7I MRC-SEMW-7I-032717 20170327	MRC-SEMW-8I MRC-SEMW-8I- 20170327
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	2.9 U	4.6 U	2.3 U	0.23 U	0.23 U	230 U	23 U
1,1-DICHLOROETHANE	**90**	43	5 U	2.5 U	0.25 U	0.25 U	250 U	25 U
1,1-DICHLOROETHENE	**7**	**170**	5.4 U	2.7 U	0.27 U	0.27 U	270 U	27 U
1,2,3-TRICHLOROBENZENE	**NC**	NA	62 J	92 J	NA	NA	350 U	35 U
1,2,4-TRICHLOROBENZENE	**70**	3.4 U	**230 J**	**320 J**	0.27 UJ	0.27 U	270 U	27 U
1,2-DICHLOROBENZENE	**600**	3.3 U	17 J	18	0.26 U	0.26 U	260 U	26 U
1,2-DICHLOROETHANE	**5**	3.8 U	6 U	**400**	0.3 U	0.3 U	300 U	30 U
1,2-DICHLOROPROPANE	**5**	3.8 U	6 U	4.2 J	0.3 U	0.3 U	300 U	30 U
1,3-DICHLOROBENZENE	**1.8**	4 U	**32**	**7.2 J**	0.32 U	0.32 U	320 U	32 U
1,4-DICHLOROBENZENE	**75**	2.9 U	50	51	0.23 U	0.23 U	230 U	23 U
2-BUTANONE	**700**	13 U	20 U	10 U	1 U	1 U	1000 UJ	100 UJ
4-METHYL-2-PENTANONE	**630**	8.9 U	14 U	7.1 U	0.71 U	0.71 U	710 U	71 U
ACETONE	**550**	22 U	35 U	18 U	1.8 U	1.8 U	1800 U	180 U
BENZENE	**5**	3.5 U	5.6 U	2.8 U	0.28 U	0.28 U	280 U	28 U
CARBON DISULFIDE	**100**	4.3 U	6.8 U	3.4 U	0.34 U	0.34 U	340 U	34 U
CARBON TETRACHLORIDE	**5**	4.4 U	7 U	3.5 U	0.35 U	0.35 U	350 U	35 U
CHLOROBENZENE	**100**	4 U	54	**120**	0.32 U	0.32 U	320 U	32 U
CHLOROETHANE	**3.6**	5.1 U	8.2 U	4.1 U	0.41 U	0.41 U	410 U	41 U
CHLOROFORM	**80**	3.9 U	6.2 U	3.1 U	0.31 U	0.31 U	310 U	31 U
CIS-1,2-DICHLOROETHENE	**70**	41	6 U	3 U	0.3 U	0.3 U	300 U	**110**
CYCLOHEXANE	**NC**	5.5 U	8.8 U	4.4 U	0.44 U	0.44 U	440 U	44 U
DICHLORODIFLUOROMETHANE	**NC**	6.3 U	10 U	5 U	0.5 U	0.5 U	500 UJ	50 UJ
ETHYLBENZENE	**700**	3.3 U	5.2 U	2.6 U	0.26 U	0.26 U	260 U	26 U
ISOPROPYLBENZENE	**66**	2.6 U	4.2 U	2.1 U	0.21 U	0.21 U	210 U	21 U
METHYL CYCLOHEXANE	**NC**	5.6 U	9 U	4.5 U	0.45 UJ	0.45 U	450 U	45 U
METHYL TERT-BUTYL ETHER	**20**	3.4 U	5.4 U	2.7 U	0.27 U	0.27 U	270 U	27 U
TETRACHLOROETHENE	**5**	3.8 U	**52**	3 U	0.3 U	0.3 U	300 U	30 U
TOLUENE	**1000**	2.9 U	4.6 U	2.3 U	0.23 U	0.23 U	230 U	23 U
TOTAL XYLENES	**10000**	3 U	4.8 U	2.4 U	0.24 U	0.24 U	240 U	24 U
TRANS-1,2-DICHLOROETHENE	**100**	3.6 U	5.8 U	2.9 U	0.29 U	0.29 U	290 U	29 U
TRICHLOROETHENE	**5**	**410**	**25**	**6.1 J**	0.34 J	0.33 U	**26000**	**3600**
TRICHLOROFLUOROMETHANE	**NC**	6.3 U	810	180	0.5 U	0.5 U	500 U	50 U
VINYL CHLORIDE	**2**	5.6 U	9 U	4.5 U	0.45 U	0.45 U	450 U	45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	**170**	**6.9**	0.5	NA	NA	0.24	0.4
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	NA	0.0056 U	0.0052 U	NA	NA	0.0055 U	0.0057 U
HEXACHLOROBIPHENYLS	**0.5**	NA	0.016 U	0.014 U	NA	NA	0.015 U	0.016 U
MONOCHLOROBIPHENYLS	**0.5**	NA	0.0058 U	0.01 J	NA	NA	0.0058 U	0.0059 U
PENTACHLOROBIPHENYLS	**0.5**	NA	0.015 U	0.013 U	NA	NA	0.014 U	0.015 U
TETRACHLOROBIPHENYLS	**0.5**	NA	0.014 U	0.012 U	NA	NA	0.013 U	0.014 U
TRICHLOROBIPHENYLS	**0.5**	NA	0.0068 U	0.0062 U	NA	NA	0.0067 U	0.0068 U
TOTAL HOMOLOGS	**0.5**	NA	0	0.010	NA	NA	0	0
Total metals (µg/L)								
ANTIMONY	**6**	NA	NA	NA	NA	NA	0.27 U	0.27 U
ARSENIC	**10**	NA	NA	NA	NA	NA	0.35 UJ	0.38 J
BARIUM	**2000**	NA	NA	NA	NA	NA	70 J	120 J

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-MW111B MRC-MW111B-042017 20170420	MRC-MW113A MRC-MW113A-032917 20170329	MRC-MW114A MRC-MW114A-032917 20170329	MRC-MW115A MRC-MW115A-031717 20170317	MRC-MW116A MRC-MW116A- 20170317	MRC-SEMW-7I MRC-SEMW-7I-032717 20170327	MRC-SEMW-8I MRC-SEMW-8I- 20170327
BERYLLIUM	**4**	NA	NA	NA	NA	NA	4 J	0.4 UJ
CADMIUM	**5**	NA	NA	NA	NA	NA	0.31 UJ	0.31 UJ
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	NA	NA	NA	NA	NA	0.58 J	0.52 J
COBALT	**NC**	NA	NA	NA	NA	NA	45 J	6.8 J
COPPER	**1300**	NA	NA	NA	NA	NA	13	0.49 U
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	NA	NA	NA	NA	NA	0.25 U	0.19 U
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	NA	NA	NA	NA	NA	0.13 U	0.13 U
MOLYBDENUM	**NC**	NA	NA	NA	NA	NA	0.51 U	2.4 U
NICKEL	**73**	NA	NA	NA	NA	NA	**75 J**	1.9 J
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	NA	NA	NA	NA	NA	0.53 U	0.48 UJ
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
SILVER	**100**	NA	NA	NA	NA	NA	0.03 U	0.03 U
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	NA	NA	NA	NA	NA	0.28 U	0.28 U
VANADIUM	**3.7**	NA	NA	NA	NA	NA	0.54 UJ	0.54 UJ
ZINC	**5000**	NA	NA	NA	NA	NA	99	6.2 U
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	NA	NA	NA	NA	NA	0.088 J	0.047 U

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-SEMW-8S MRC-SEMW-8S-20170327	MRC-SWMW-1I MRC-SWMW-1I-20170410	MRC-SWMW-2I MRC-SWMW-2I-20170410	MRC-SWMW-3I MRC-SWMW-3I-041017 20170410	MRC-SWMW-4I MRC-SWMW-4I-041117 20170411	MRC-SWMW-4S MRC-SWMW-4S-20170411	MRC-SWMW-5I MRC-SWMW-5I-041017 20170410
Volatile organic compounds (µg/L)								
1,1,1-TRICHLOROETHANE	**200**	460 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	0.23 U
1,1-DICHLOROETHANE	**90**	500 U	4.9	2.8	6.4 J	2.5	4.5	3.1
1,1-DICHLOROETHENE	**7**	540 U	0.27 U	0.27 U	**53**	0.31 J	0.65 J	0.27 U
1,2,3-TRICHLOROBENZENE	**NC**	700 U	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	**70**	540 U	0.27 U	0.27 U	2.7 U	0.27 U	0.27 U	0.27 U
1,2-DICHLOROBENZENE	**600**	520 U	0.26 U	0.26 U	2.6 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	**5**	600 U	0.38 J	0.66 J	3 U	1.3	0.36 J	0.3 U
1,2-DICHLOROPROPANE	**5**	600 U	0.3 U	0.3 U	3 U	0.3 U	0.3 U	0.3 U
1,3-DICHLOROBENZENE	**1.8**	640 U	0.32 U	0.32 U	3.2 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	**75**	460 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	**700**	2000 UJ	1 U	1 U	10 U	4.3 J	1 U	29
4-METHYL-2-PENTANONE	**630**	1400 U	0.71 U	0.71 U	7.1 U	1.6 J	0.71 U	0.71 U
ACETONE	**550**	3500 U	1.8 U	1.8 U	18 U	1.8 U	1.8 U	1.8 U
BENZENE	**5**	560 U	2.2	**9.2**	**7 J**	2.7	1	4.1
CARBON DISULFIDE	**100**	680 U	0.34 UJ	0.34 UJ	3.4 UJ	0.34 UJ	0.34 UJ	0.34 UJ
CARBON TETRACHLORIDE	**5**	700 U	0.35 U	0.35 U	3.5 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	**100**	640 U	0.32 U	0.32 U	3.2 U	0.32 U	0.32 U	0.32 U
CHLOROETHANE	**3.6**	820 U	0.69 J	**14**	4.1 U	**13**	0.41 U	**5.8**
CHLOROFORM	**80**	620 U	0.31 U	0.31 U	3.1 U	0.31 U	0.31 U	0.31 U
CIS-1,2-DICHLOROETHENE	**70**	600 U	0.3 U	0.44 J	**260**	3.3	2.3	0.3 U
CYCLOHEXANE	**NC**	880 U	0.44 U	0.44 U	4.4 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	**NC**	1000 UJ	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	**700**	520 U	0.26 U	0.26 U	2.6 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	**66**	420 U	0.21 U	0.29 J	2.1 U	0.21 U	0.21 U	0.21 U
METHYL CYCLOHEXANE	**NC**	900 U	0.45 U	0.45 U	4.5 U	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	**20**	540 U	0.27 U	0.27 U	2.7 U	0.27 U	0.27 U	0.27 U
TETRACHLOROETHENE	**5**	600 U	0.3 U	0.3 U	3 U	0.3 U	0.3 U	0.3 U
TOLUENE	**1000**	460 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	**10000**	480 U	0.24 U	0.24 U	2.4 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	**100**	580 U	0.38 J	0.29 U	2.9 U	0.29 J	0.92 J	0.49 J
TRICHLOROETHENE	**5**	**61000**	0.83 J	1	**5.1 J**	0.44 J	2.1	1
TRICHLOROFLUOROMETHANE	**NC**	1000 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	**2**	900 U	**2.8**	**3.7**	**12**	**2.5**	1.4	0.45 U
Volatile gases (µg/L)								
ETHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
ETHENE	**NC**	NA	NA	NA	NA	NA	NA	NA
METHANE	**NC**	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)								
1,4-DIOXANE	**3**	0.19 J	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyl homologs (µg/L)								
DICHLOROBIPHENYLS	**0.5**	0.0052 U	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	**0.5**	0.014 U	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	**0.5**	0.0054 U	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	**0.5**	0.013 U	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	**0.5**	0.012 U	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	**0.5**	0.0062 U	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	**0.5**	0	NA	NA	NA	NA	NA	NA
Total metals (µg/L)								
ANTIMONY	**6**	0.27 U	NA	NA	NA	NA	NA	NA
ARSENIC	**10**	5.8 J	NA	NA	NA	NA	NA	NA
BARIUM	**2000**	49 J	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Level Exceedances in Groundwater Samples - 2017
Lockheed Martin Middle River Complex. Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MDE Groundwater Standard[1,2]	MRC-SEMW-8S MRC-SEMW-8S-20170327	MRC-SWMW-1I MRC-SWMW-1I-20170410	MRC-SWMW-2I MRC-SWMW-2I-20170410	MRC-SWMW-3I MRC-SWMW-3I-041017 20170410	MRC-SWMW-4I MRC-SWMW-4I-041117 20170411	MRC-SWMW-4S MRC-SWMW-4S-20170411	MRC-SWMW-5I MRC-SWMW-5I-041017 20170410
BERYLLIUM	**4**	**15 J**	NA	NA	NA	NA	NA	NA
CADMIUM	**5**	0.56 J	NA	NA	NA	NA	NA	NA
CALCIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	**100**	1.4 J	NA	NA	NA	NA	NA	NA
COBALT	**NC**	210 J	NA	NA	NA	NA	NA	NA
COPPER	**1300**	25 J	NA	NA	NA	NA	NA	NA
IRON	**300**	NA	NA	NA	NA	NA	NA	NA
LEAD	**15**	0.26 U	NA	NA	NA	NA	NA	NA
MAGNESIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
MANGANESE	**50**	NA	NA	NA	NA	NA	NA	NA
MERCURY	**2**	0.13 U	NA	NA	NA	NA	NA	NA
MOLYBDENUM	**NC**	0.51 UJ	NA	NA	NA	NA	NA	NA
NICKEL	**73**	**320 J**	NA	NA	NA	NA	NA	NA
POTASSIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
SELENIUM	**50**	22 J	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
SILVER	**100**	0.03 UJ	NA	NA	NA	NA	NA	NA
SODIUM	**NC**	NA	NA	NA	NA	NA	NA	NA
THALLIUM	**2**	0.28 U	NA	NA	NA	NA	NA	NA
VANADIUM	**3.7**	0.54 UJ	NA	NA	NA	NA	NA	NA
ZINC	**5000**	420 J	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (mg/L)								
ALKALINITY	**NC**	NA	NA	NA	NA	NA	NA	NA
AMMONIA	**NC**	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	**NC**	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	**NC**	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	**NC**	NA	NA	NA	NA	NA	NA	NA
SULFATE	**NC**	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	**NC**	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (µg/L)								
HEXAVALENT CHROMIUM	**100**	0.047 U	NA	NA	NA	NA	NA	NA

Notes:

Shaded cells indicate detected concentration exceeds groundwater screening level

1 Screening levels for all analytes except 1,4-dioxane are Maryland Department of the Environment (MDE) groundwater standards (MDE, 2008).

2 The screening level for 1.4-dioxane is State of California drinking water action level (MDE standard not available).

µg/L - micrograms per liter

-AVG (in sample ID) - average concentration for the sample and its duplicate (i.e., "-D")

-D (in Sample ID) - duplicate sample

J - estimated value

MDE - Maryland Department of the Environment

mg/L - milligrams per liter

NA - not analyzed

NC - no criterion

U - not detected at the concentration left of the letter

UJ - analyte not detected, detection limit may be inacurate or imprecise

Table 4-4

Summary of Metals Exceeding Groundwater Screening Levels-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

Parameter	Maryland Department of the Envrionment groundwater standard[1]	Total Metals			
		Detections exceeding screening		Maximum concentration (µg/L)	Exceedance factor (maximum concentration/ screening level)
		(quantity)	(percent)		
Inorganics (ug/L)					
ANTIMONY	**6**	**2**	**29**	**8.2**	**1.4**
ARSENIC	**10**	**2**	**8**	**12**	**1.2**
BERYLLIUM	**4**	**3**	**33**	**15 J**	**3.8**
IRON	**300**	**11**	**79**	**180000**	**600**
LEAD	**15**	**2**	**15**	**50**	**3.3**
MANGANESE	**50**	**11**	**79**	**43000**	**860**
NICKEL	**73**	**6**	**19**	**390**	**5.3**
VANADIUM	**3.7**	**6**	**38**	**120**	**32**
ZINC	**5000**	**1**	**4**	**16000**	**3.2**
BARIUM	2000	0	0	400	0.20
CADMIUM	5	0	0	1.8	0.36
CHROMIUM	100	0	0	82	0.82
COPPER	1300	0	0	52	0.04
HEXAVALENT CHROMIUM	100	0	0	0.088 J	0.00088
MERCURY	2	0	0	0.17 J	0.085
SELENIUM	50	0	0	22 J	0.44
SILVER	100	0	0	0.35 J	0.004
THALLIUM	2	0	0	0.36 J	0.18
CALCIUM	NA	0	0	120000	NA
COBALT	NA	0	0	400	NA
MAGNESIUM	NA	0	0	37000	NA
MAGNESIUM	NA	0	0	37000	NA
MOLYBDENUM	NA	0	0	1.2 J	NA
POTASSIUM	NA	0	0	9900	NA
SILICON DIOXIDE	NA	0	0	92000	NA
SODIUM	NA	0	0	350000	NA

Bold highlighting indicates analytes that exceeded the screening criteria.

1 Maryland Department of the Environment Soil and Groundwater Standards, Interim Final 2.1, June 2008.

J - estimated value

NA - no screening level available (second column), or not applicable because concentrations do not exceed the criterion.

µg/L - micrograms per liter (i.e. parts per billion)

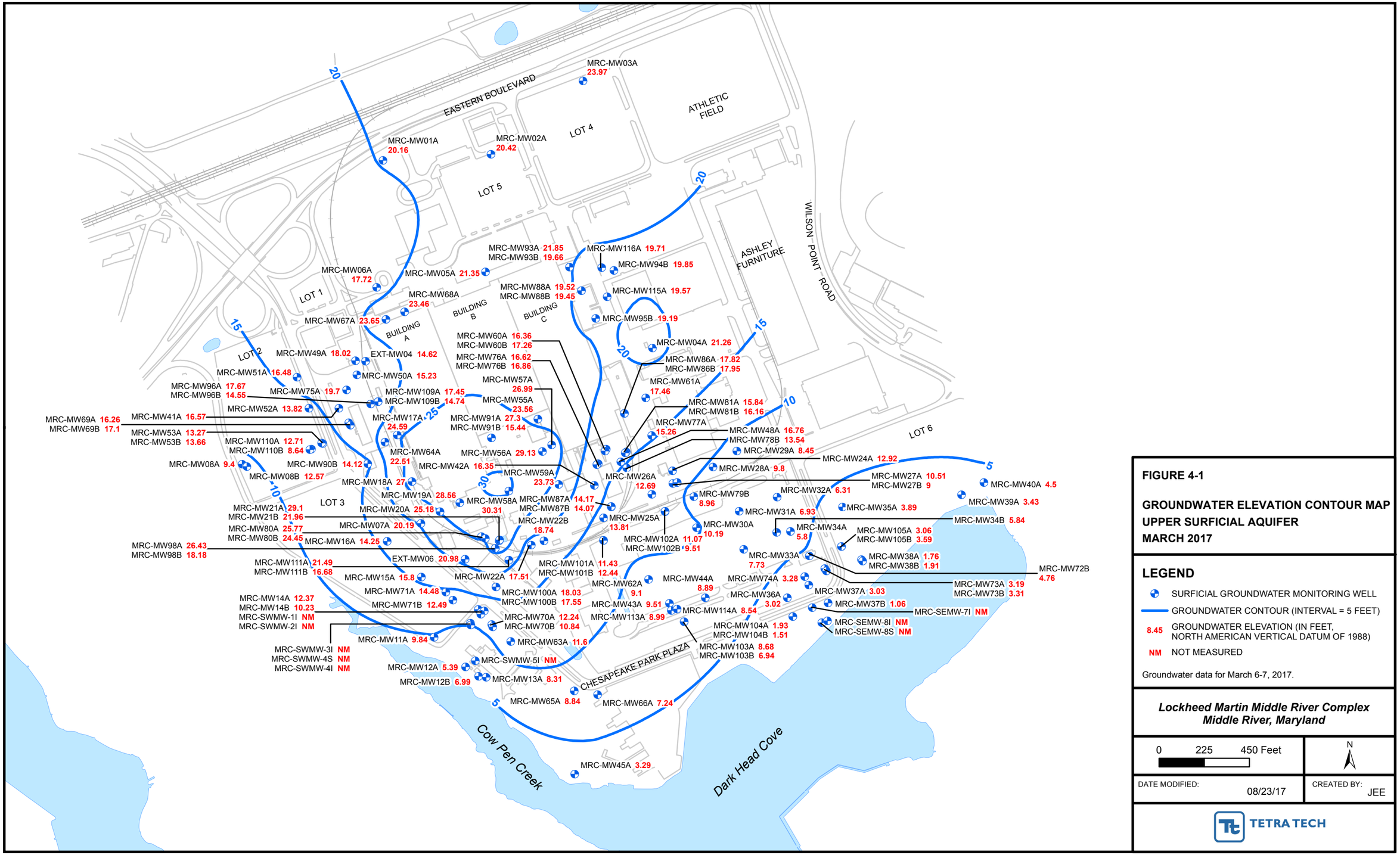

FIGURE 4-1

GROUNDWATER ELEVATION CONTOUR MAP
UPPER SURFICIAL AQUIFER
MARCH 2017

LEGEND

- SURFICIAL GROUNDWATER MONITORING WELL
- GROUNDWATER CONTOUR (INTERVAL = 5 FEET)
- 8.45 GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988)
- NM NOT MEASURED

Groundwater data for March 6-7, 2017.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 225 450 Feet

N

DATE MODIFIED: 08/23/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_gw_contours_mar2017_upper.mxd)
08/23/17 -- JEE

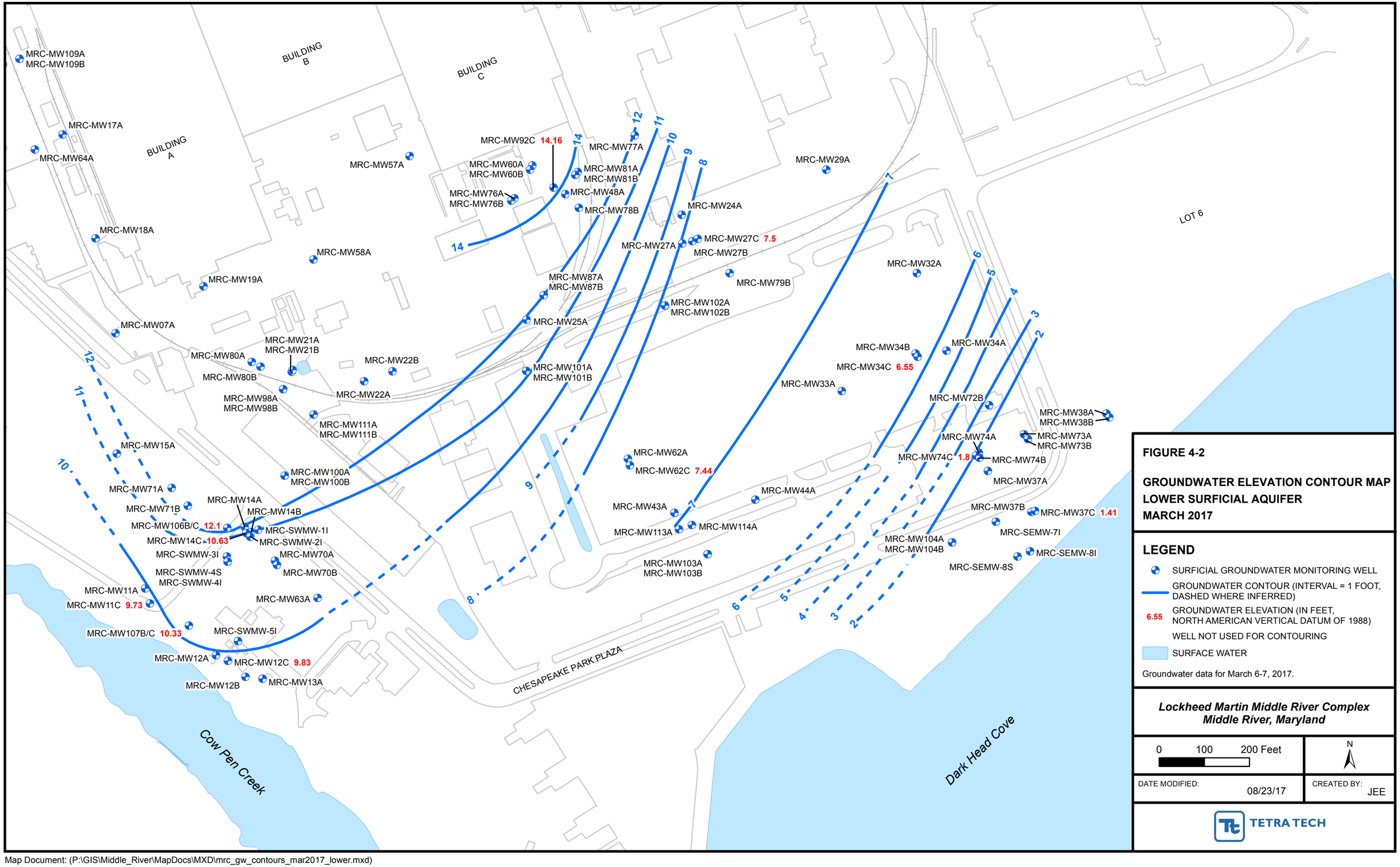

FIGURE 4-2

GROUNDWATER ELEVATION CONTOUR MAP
LOWER SURFICIAL AQUIFER
MARCH 2017

LEGEND

- SURFICIAL GROUNDWATER MONITORING WELL
- GROUNDWATER CONTOUR (INTERVAL = 1 FOOT, DASHED WHERE INFERRED)
- 6.55 GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988)
- WELL NOT USED FOR CONTOURING
- SURFACE WATER

Groundwater data for March 6-7, 2017.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 08/23/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_gw_contours_mar2017_lower.mxd)
08/23/17 -- KM

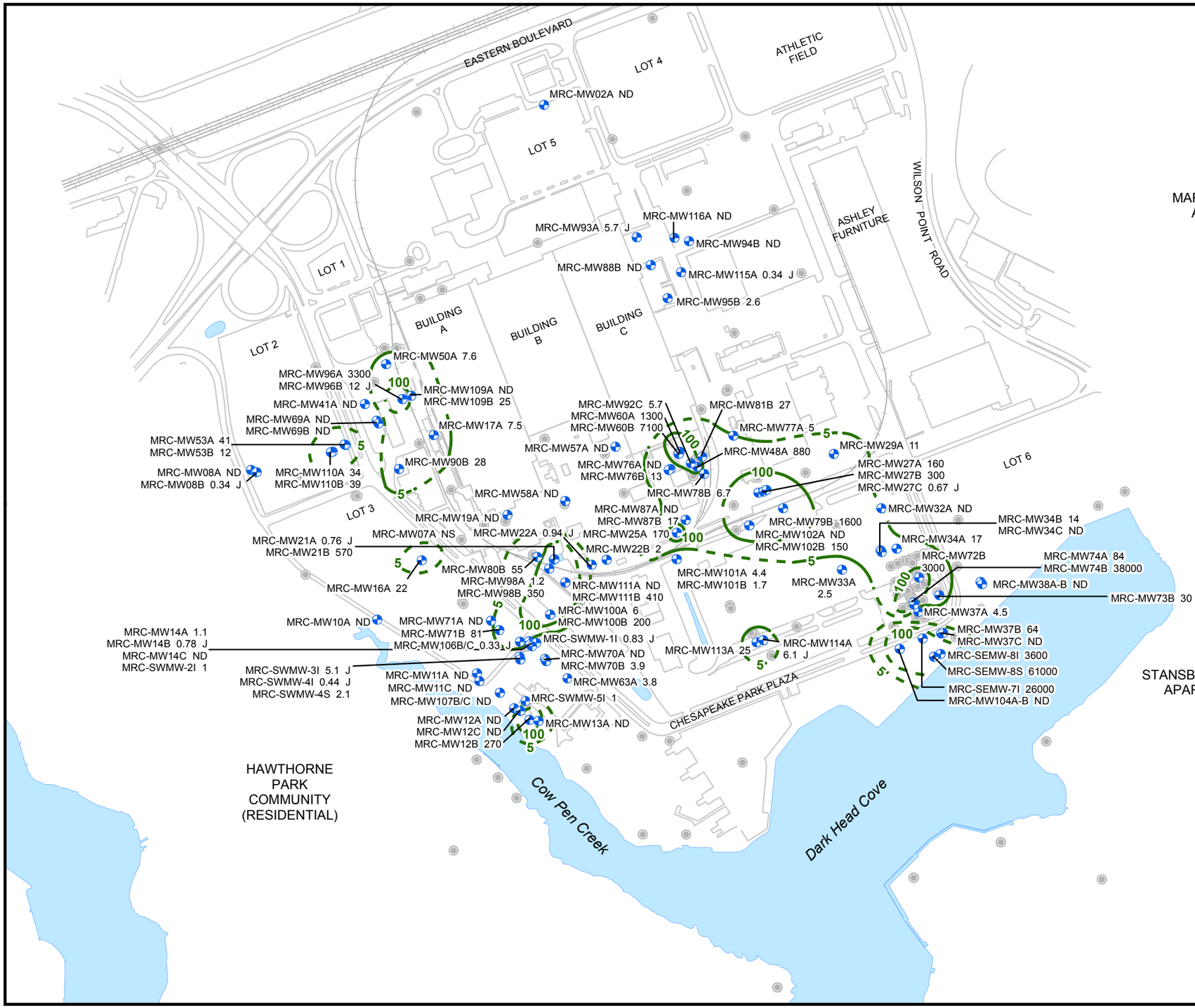

FIGURE 4-3

DISTRICTION OF TRICHLOROETHENE IN GROUNDWATER, 2017

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL SAMPLED FOR TCE
- WELL NOT SAMPLED FOR TCE
- SURFACE WATER
- TCE ISOCONCENTRATION (UG/L, DASHED WHERE INFERRED)
- 17 MAXIMUM CONCENTRATION IN WELL (UG/L)

J = ESTIMATED VALUE
ND = NOT DETECTED
TCE = TRICHLOROETHENE
UG/L = MICROGRAMS PER LITER

GROUNDWATER STANDARD FOR TCE IS 5 UG/L.
THE VALUE SHOWN IS THE HIGHER OF THE SAMPLE OR SAMPLE DUPLICATE.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 225 450 Feet

N

DATE MODIFIED: 08/23/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_gw_tce_2017.mxd)
08/23/17 JEE

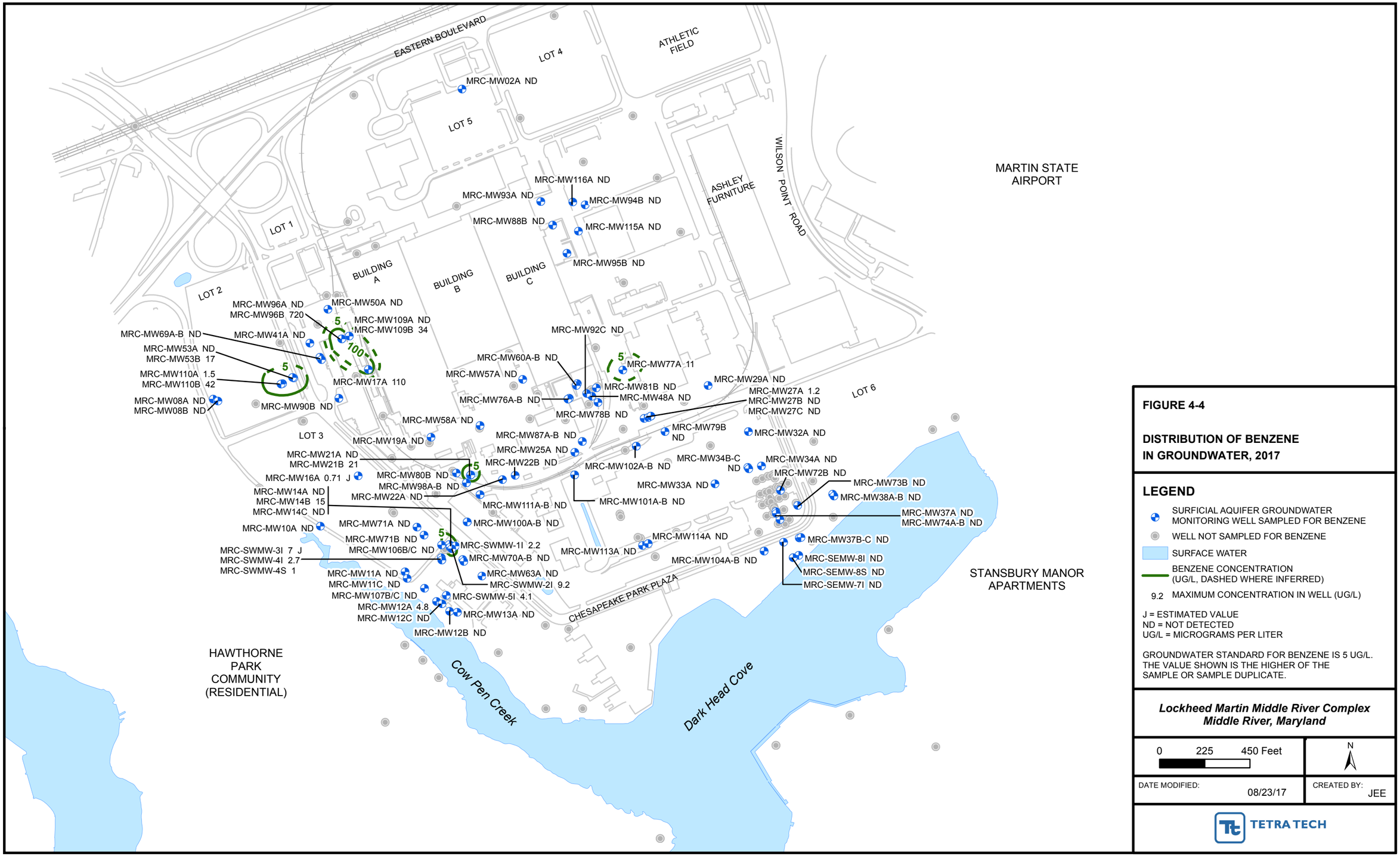

FIGURE 4-4

DISTRIBUTION OF BENZENE IN GROUNDWATER, 2017

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL SAMPLED FOR BENZENE
- WELL NOT SAMPLED FOR BENZENE
- SURFACE WATER
- BENZENE CONCENTRATION (UG/L, DASHED WHERE INFERRED)
- 9.2 MAXIMUM CONCENTRATION IN WELL (UG/L)

J = ESTIMATED VALUE
ND = NOT DETECTED
UG/L = MICROGRAMS PER LITER

GROUNDWATER STANDARD FOR BENZENE IS 5 UG/L. THE VALUE SHOWN IS THE HIGHER OF THE SAMPLE OR SAMPLE DUPLICATE.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 225 450 Feet

N

DATE MODIFIED: 08/23/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_gw_benzene_2017.mxd)
08/23/17 -- JEE

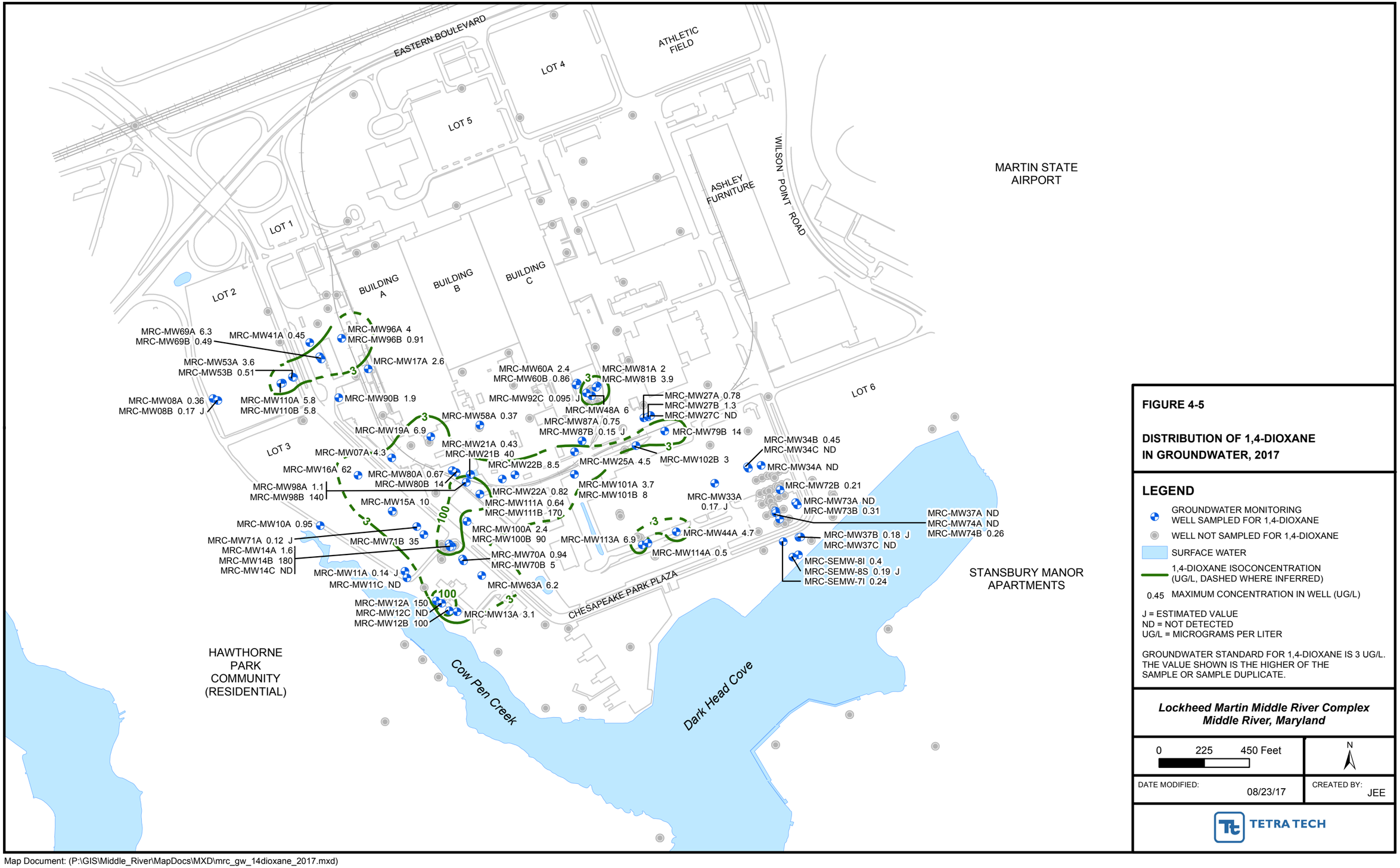

FIGURE 4-5

DISTRIBUTION OF 1,4-DIOXANE IN GROUNDWATER, 2017

LEGEND

- GROUNDWATER MONITORING WELL SAMPLED FOR 1,4-DIOXANE
- WELL NOT SAMPLED FOR 1,4-DIOXANE
- SURFACE WATER
- 1,4-DIOXANE ISOCONCENTRATION (UG/L, DASHED WHERE INFERRED)
- 0.45 MAXIMUM CONCENTRATION IN WELL (UG/L)

J = ESTIMATED VALUE
ND = NOT DETECTED
UG/L = MICROGRAMS PER LITER

GROUNDWATER STANDARD FOR 1,4-DIOXANE IS 3 UG/L. THE VALUE SHOWN IS THE HIGHER OF THE SAMPLE OR SAMPLE DUPLICATE.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 225 450 Feet

N

DATE MODIFIED: 08/23/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_gw_14dioxane_2017.mxd)
08/23/17 -- JEE

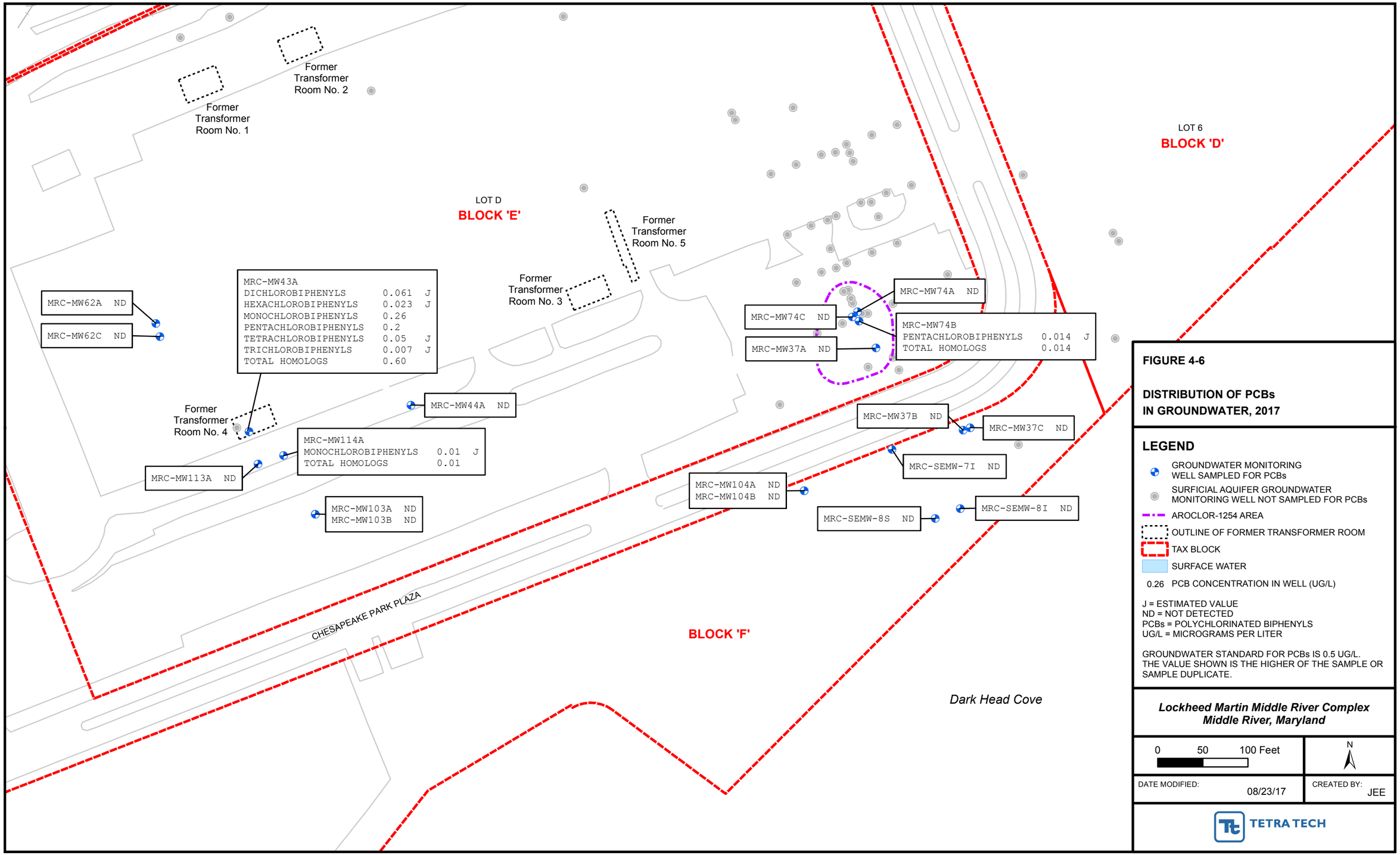

FIGURE 4-6

DISTRIBUTION OF PCBs IN GROUNDWATER, 2017

LEGEND

- GROUNDWATER MONITORING WELL SAMPLED FOR PCBs
- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL NOT SAMPLED FOR PCBs
- AROCLOR-1254 AREA
- OUTLINE OF FORMER TRANSFORMER ROOM
- TAX BLOCK
- SURFACE WATER
- 0.26 PCB CONCENTRATION IN WELL (UG/L)

J = ESTIMATED VALUE
ND = NOT DETECTED
PCBs = POLYCHLORINATED BIPHENYLS
UG/L = MICROGRAMS PER LITER

GROUNDWATER STANDARD FOR PCBs IS 0.5 UG/L.
THE VALUE SHOWN IS THE HIGHER OF THE SAMPLE OR SAMPLE DUPLICATE.

Lockheed Martin Middle River Complex
Middle River, Maryland

0 50 100 Feet

N

DATE MODIFIED: 08/23/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_pcb_sampling_mar2017.mxd)
08/23/17 -- JEE

Section 5
Summary

The findings of the March/April 2017 groundwater sampling and analyses and the groundwater level measurements for the Lockheed Martin Corporation (Lockheed Martin) Middle River Complex (MRC) are summarized below:

- All accessible wells were inspected during the 2017 sampling program to assess their need for repairs; five wells were repaired and two (MW11A and MW16A) will be repaired at a later date following completion of the sediment removal activities.
- Each well was inspected and a round of synoptic groundwater measurements was collected on March 6–7, 2017.
- Groundwater samples were collected from monitoring wells in March–April 2017 and June 7, 2017 (MW16A). Samples were analyzed for one or more of the following: volatile organic compounds (VOCs), 1,4-dioxane, total metals, polychlorinated biphenyls (PCBs), natural-attenuation assessment (NAA) parameters, and field water-quality parameters.
- Two wells (MW16A and MW72A) could not be located during the planned water-level round; therefore, groundwater levels at those wells could not be measured. However, MW16A was later located and sampled, and the water level at this well was measured at that time. MW16A was damaged (but not compromised) and will be repaired at a later date, because the sediment removal action is currently underway in this area. Repairs completed after sampling include replacing the concrete pads and flush-mounted covers of five wells (MW11A, MW25A, MW37C, MW53A, and MW109A/B). The condition of six wells that required repair did not affect sampling or groundwater quality.
- Groundwater flow in March 2017 is similar to that depicted by previous groundwater investigations. Shallow groundwater follows site topography and flows radially from the hydraulically upgradient northern portion of the Middle River Complex (at Eastern Boulevard and immediately south of Buildings A, B, and C) to the southeast, south, and southwest toward Dark Head Cove and Cow Pen Creek. Groundwater in the deep surficial-aquifer flows southeasterly from Eastern Boulevard toward Dark Head Cove. The March 2017 surficial-aquifer groundwater elevations are generally lower than those measured in 2016.

- Concentrations of chlorinated volatile organic compounds exceed Maryland groundwater standards at three main areas of the facility and at multiple depths. Trichloroethene (TCE), a common industrial solvent and metal degreaser, is the primary volatile organic compound exceeding its Maryland groundwater standard. Trichloroethene-degradation products, such as dichloroethenes and vinyl chloride (VC), also exceed Maryland groundwater standards at the facility, as do tetrachloroethene (PCE), chlorobenzene compounds, and the fuel-related volatile organic compound benzene. These data confirm four significant trichloroethene and trichloroethene-degradation-product plumes.

    - The northern trichloroethene plume, directly south of Building C, is possibly related to past handling and storage practices in and near that building. A remedial action to address this contamination is ongoing in this area. High concentrations of trichloroethene within this plume are in the intermediate depth of the surficial aquifer in wells MW60B, MW79B, and MW27B (downgradient of the remediation area), screened 30 feet below grade; concentrations in these wells are 7,100 µg/L, 1,600 µg/L, and 300 µg/L, respectively.

    - The southeastern trichloroethene plume is near the former location of an underground storage tank (documentation references the tank as "UST 2") that was located (and removed) near the former Building D foundation; this tank contained trichloroethene product and is believed to be the source of trichloroethene contamination in that area. An interim remedial action (multi-phase extraction) was implemented to address high concentrations of trichloroethene in the immediate area of the underground storage tank. Additional investigation of recently observed contamination to the south of this area toward Dark Head Cove has delayed implementation of planned groundwater remediation in this area.

        - The maximum concentration of trichloroethene at the site (61,000 micrograms per liter [µg/L]) was detected in groundwater near the southern end of the southeastern trichloroethene plume at new well SEMW-8S, and is assumed to be associated (in part) with the underground storage tank. This well is south of Block E and well MW74B, where the maximum trichloroethene concentration was detected in 2016 and the second highest TCE concentration was detected in 2017. The third highest TCE concentration in 2017 was detected nearby at newly installed well SEMW-7I, located north of SEMW-8S and south of MW74B. Due to the elevated TCE concentrations detected in proximity to Dark Head Cove, the sampling program was expanded in 2017 to include additional groundwater and nearby surface water locations.

        - Trichloroethene in well MW74B (in the southeastern portion of Block E near the shallow polychlorinated biphenyl source and an aboveground storage tank) had reduced in previous years by a factor of 21 (from 40,000 µg/L in 2013 to 1,900 µg/L in 2014), but rebounded in 2015 (to 21,800 µg/L) and again in 2016 (to 37,000 µg/L) and 2017 (to 38,000 µg/L).

    - The southwestern trichloroethene plume originates from a known solvent spill from a waste-oil tank north of Tilley Chemical and a possible secondary trichloroethene source at the former wastewater treatment plant south of Tilley Chemical and Chesapeake Park Plaza in Block G. A remedial action implemented in this area in 2015 and 2016

successfully reduced trichloroethene and daughter-product concentrations in this area. Post-remediation monitoring is underway.

  - A smaller trichloroethene plume is also west of Building A. An investigation is in progress to more fully define this plume, its source, and its relationship to possible contamination under the Building A basement and the adjacent Maintenance Building. Historical data indicate that concentrations are not changing—the plume appears to be static. Trichloroethene has also been detected at several isolated locations in the western portion of the facility and in the southwestern portion of Lot D (Block E).

- Benzene concentrations at areas west of Building A, in the southwestern trichloroethene plume, and near the vertical-assembly building, exceed the state groundwater standard of five micrograms per liter. However, these concentrations decline rapidly to levels below the standard at nearby downgradient wells. Most wells that had benzene exceedances in 2016 exhibited lower concentrations in 2017. At this time, no additional investigations for benzene are planned; monitoring will continue.

  - Chlorobenzene and chlorobenzene compounds (1,2,4-trichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene) exceed groundwater standards in several shallow wells (MW43A, MW113A, and MW114A) in the southwestern portion of Lot D (Tax Block E). Several chlorinated volatile organic compounds (including tetrachloroethene, trichloroethene, and 1,2-dichloroethane) also exceed their groundwater standards at these wells. Planning for additional chlorobenzene investigation is part of the site remediation for polychlorinated biphenyls, because chlorobenzenes are co-located with the polychlorinated biphenyls, especially in the Block E source areas.

- 1,4-Dioxane was detected in many wells in the southwestern trichloroethene plume area. The highest concentrations occur primarily in upper- and intermediate-surficial-aquifer wells. The highest 1,4-dioxane concentrations (including the maximum concentration of 180 µg/L in MW14B) occur along a southwesterly line originating just north of the Tilley Chemical building extending to Cow Pen Creek. 1,4-Dioxane screening-criterion exceedances were detected in 21 wells west, southwest, and south of Building A. 1,4-Dioxane concentrations over time have been constant to slightly decreasing in the southwestern trichloroethene plume area, and at wells outside of the groundwater remedy areas. 1,4-Dioxane screening-criterion exceedances were also in several wells in/nearby the northwest corner of Tax Block E and south of Building C. Historically, 1,4-dioxane has not exceeded its screening level in eastern-area wells; however, additional (as compared to 2016) eastern-area wells were sampled for 1,4-dioxane in 2017, to confirm the low concentrations and in response to recent reduced (i.e., more stringent) regulatory standards in other states. Concentrations of 1,4-dioxane exceeded its screening level in several wells in the eastern portion of the MRC.

  - Recent 1,4-dioxane sampling at the site has focused on the western portion of the site. Historically, 1,4-dioxane has not been detected extensively in the eastern part of the MRC. Sampling in the east was suspended following the 2008 sampling, when no samples exceeded the then-action level of 10 µg/L. In 2017, a significant number of wells in the eastern portion of the site were sampled using the new screening level (3 µg/L).

- 1,4-Dioxane was detected in several wells in the southwestern trichloroethene plume area, extending from well MW19A (to the south of Building A) to wells MW12A-B (adjacent to Cow Pen Creek). The highest concentrations occur in a line extending from just north of the Tilley Chemical building (140 µg/L and 170 µg/L at wells MW98B and MW111B, respectively) to Cow Pen Creek (150 µg/L and 100 µg/L at wells 12A–B, respectively). Sampling of these wells and the nearby surface water will continue; no additional investigations are required.

- 1,4-Dioxane was also detected at concentrations exceeding its screening level west of Building A in samples from wells MW69A (6.3 µg/L), MW96A (4 µg/L), MW110A (5.8 µg/L), and MW110B (5.8 µg/L). No additional investigations are warranted, because these concentrations are relatively low and downgradient wells near Cow Pen Creek (MW08A and MW08B) have 1,4-dioxane concentrations less than 3 µg/L.

- 1,4-Dioxane was detected at concentrations greater than its screening level (3 µg/L) in the following Block E wells: MW113A (6.9 µg/L), MW79B (14 µg/L), and MW44A (4.7 µg/L). No wells in the southeastern TCE remediation area had exceedances. In Block I, MW89B is the only well with an exceedance, with a concentration of 3.9 µg/L. No additional investigation is planned in this area; however, groundwater monitoring in these wells will continue, due to the low concentrations and lack of detections near Dark Head Cove.

- Polychlorinated biphenyl homologs were analyzed in groundwater samples collected from 19 wells in Tax Blocks E and F. Homologs were detected in two samples at concentrations below the groundwater standard and in one sample at a concentration slightly greater than the standard, when considering the total-homologs result. Total homologs exceeding the groundwater standard were detected at MW43A in the southwestern portion of Block E, which is the well where elevated polychlorinated biphenyls were detected in soil. Results indicate that only concentrations of chlorobiphenyls below the groundwater standard are migrating in groundwater from well MW43A. In support of the soil remedy, planning for additional groundwater investigation in these source areas is currently underway.

- Concentrations of nine metals exceeded Maryland groundwater standards in one or more groundwater samples this round. Concentrations of manganese, iron, vanadium, beryllium, and manganese exceed their respective standards most frequently, with maxima for manganese and iron exceeding standards by more than two orders of magnitude (greater than 100 times). Nickel, lead, zinc, and arsenic exceeded their respective standards less frequently, with the maxima of these metals approximately less than two to five times above their respective groundwater standards. Metals do not contribute to site risk, and additional investigations and/or remediation for metals is not planned; monitoring will continue to determine if significant changes in metals concentrations occur at the site.

- Two areas of data gaps identified in the report require additional investigation:

  - A smaller trichloroethene plume west of Building A is currently under investigation so that its source can be fully defined and its relationship to possible contamination under the Building A basement and the adjacent Maintenance Building can be determined.

- Polychlorinated biphenyls in soil near four transformer rooms in former Building D (Block E), and chlorobenzenes and polychlorinated biphenyls appear to be co-located in groundwater. In support of the soil remedy, planning for additional groundwater investigation in these source areas is currently underway. Details are in the *Block E Soil Remedial Investigation Work Plan Addendum 3: Fall 2017 Soil and Groundwater Sampling* (Tetra Tech, 2017).

Lockheed Martin Corporation is, in coordination with the Maryland Department of the Environment, continuously optimizing the groundwater monitoring program at the Middle River Complex. For example, to meet current and potential future lower screening levels for 1,4-dioxane, Method SW846 8270D will be used for future analyses. Additionally, a third party, EarthCon Consultants, Inc., is working to develop an independent assessment of possible sources, plume stability, and monitoring recommendations. The results of this analysis will be used in conjunction with previously prepared decision rules to optimize the monitoring protocol for 2018 and beyond.

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Section 6
References

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APPENDIX A—GROUNDWATER-LEVEL RECORD SHEETS

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Middle River Center
Location: MRC
Weather Conditions: Sunny 38°
Tidally Influenced: Yes ___ No ✓
Project No.: 112IC07776
Personnel: W. Payson
Measuring Device: Water Level meter
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MRC-MW35A	3/6/17	0830			4.50			
MW-40A		0834			Top of PVC			
MW-39A		0839			1.35			
MW-105A		0844			6.60			
MW-105B		0845			6.05			
MW-38A		0850			6.31			M.55, no bolts
MW-38B		0851			6.27			
MW-37B		0900			6.30			
MW-37C		0901			6.04			Replace
MW-104A		0906			6.26			
MW-104B		0907			6.72			
MW-46A		0912	Can not find due to construction					
MW-45A		0915			1.35			
MW-65A		0918			5.92			
MW-66A		0922			7.75			
MW-14A		0933			4.30			
MW-14B		0934			5.65			
MW-14C		0935			5.25			needs Bolts
MW-106B/C		0938			4.10			
MW-70A		0943			2.45			
MW-70B		0944			3.60			
MW-107B/C		0950			Top of PVC			
MW-12A		0953			3.90			
MW-12B		0956			~~Top of PVC~~	2.57		
MW-12C	↓	0959			Top of PVC			

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Middle River Center
Location: MCL
Weather Conditions: Sunny 50°
Tidally Influenced: Yes ___ No ✓
Project No.: 112IC07776
Personnel: W. Ayon
Measuring Device: Water Level Meter
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW-13	3/6/17	1005			2.80			
MW-63A		1015			4.60			
MW-11A		1025			2.06			Needs Replaced
MW-11C		1028			1.72			
MW-71A		1035			2.42			
MW-71B		1037			4.45			
MW-15A		1044			1.00			
MW-16A		1100	Can not find		due to	Construction		
MW-54A		1105	"		"		"	
MW-53A		1104			5.27			Needs Repair
MW-53B		1104			4.75			
MW-110A		1115			3.50			
MW-110B		1116			7.45			
MW-08A		1122			0.30			
MW-08B		1123			-3.00			
MW-52A		1128			6.50			
MW-51A		1135			5.40			
MW-69A		1145			11.37			
MW-69B		1147			10.75			
MW-75A		1152			9.30			
MW-06A		1300			14.10			
MW-01A		1307			13.47			
MW-02A		1312			7.99			
MW-05A		1318			13.80			
MW-03A		1325			4.20			

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: _____ Project No.: _____

Location: _____ Personnel: _____

Weather Conditions: _____ Measuring Device: _____

Tidally Influenced: Yes ___ No ___ Remarks: _____

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW-116A		1335			6.15			
MW-94B		1342			5.43			
MW-93A		1347			10.20			
MW-93B		1348			12.31			
MW-88A		1352			4.95			
MW-88B		1353			4.95			
MW-115A		1358			7.26			
MW-95B		1403			4.85			
MW-86A		1410			5.80			
MW-86B		1411			5.77			
MW-25A		1417			12.90			Needs Repaired
MW-87A		1420			12.40			
MW-87B		1421			12.47			
MW-81A	↓	1425			11.50			
MW-81B	3/6/19	1426			9.80			Need Bolt
MW-78B		1431			10.76			
MW-60A		1434			14.90			
MW-60B		1437			13.95			
MW-92C		1440			11.15			
MW-48A		1445			8.00			
MW-76A		1455			11.80			
MW-76B		1456			11.38			
MW-42A		1505			11.86			Nut Bolt
MW-59A		1515			10.38			
MW-57A		1521			9.47			

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: _____ Project No.: _____

Location: _____ Personnel: _____

Weather Conditions: _____ Measuring Device: _____

Tidally Influenced: Yes ___ No ___ Remarks: _____

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW-56A	3/7/17	0730			6.81			
MW-55A		0734			13.00			
MW-91A		0740			9.55			
MW-91B		0741			21.10			
MW-58A		0745			4.72			
MW-21A		0755			3.60			
MW-21B		0756			10.95			
MW-22A		0801			14.07			
MW-22B		0805			12.30			
MW-80A		0811			7.05			
MW-80B		0813			8.21			
EXT-MW06		0816			10.65			
MW-19A		0824			7.80			
MW-20A		0827			11.00			
MW-07A		0830			13.20			
MW-18A		0835			5.46			
MW-17A		0842			8.00			
MW-64A		0846			8.37			
MW-90B		0851			7.55			
MW-96A		0900			13.20			
MW-96B		0901			16.30			
MW-50A		0905			14.92			
MW-49A		0910			13.45			
MW-67A		0913			13.02			
MW-68A		0917			13.05			

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: _____ Project No.: _____

Location: _____ Personnel: _____

Weather Conditions: _____ Measuring Device: _____

Tidally Influenced: Yes ___ No ___ Remarks: _____

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
Ext-MW04	3/7/17	0922			19.60			
MW-04A		0927			3.17			
MW-6/A		0932			6.70			
MW-77A		0938			7.80			
MW-26A		0942			10.21			
MW-27A		0947			10.25			
MW-27B		0949			11.90			
MW-27C		0951			13.85			
MW-24A		0955			7.85			
MW-28A		0958			7.65			
MW-29A		1004			5.52			Need Bolt
MW-114A		1014			3.25			
MW-113A		1017			2.90			
MW-44A		1022			1.75			
MW-62A		1027			1.52			
MW-62C		1029			3.45			
MW-43A		1032			1.50			
MW-30A		1037			0.95			
MW-31A		1042			4.07			
MW-32A		1047			4.70			
MW-34A		1052			5.08			
MW-34B		1057			5.00			
MW-34C		1100			4.25			
MW-33A		1105			3.35			
MW-79B	V	1111			10.22			

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Middle River Center Project No.: 112EC07776
Location: MRC Personnel: W. Pryor
Weather Conditions: Sunny 34° Measuring Device: Water Level Meter
Tidally Influenced: Yes ___ No ___ Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW 101A	3/7/17	1115			15.86			
MW 101B		1116			14.81			
MW 102A		1121			10.56			
MW 102B		1122			12.07			
MW 36A		1130			6.70			
MW 37A		1135			7.47			
MW 74A		1140			7.90			
MW 74C		1145			9.25			
MW 73A		1150			7.27			
MW 73B		1152			6.97			
MW 103A		1200			4.25			
MW 103B		1201			6.05			
MW 109A		1305			13.77			Repair
MW 109B		1306			16.50			↓
MW 100A		1320			9.79			
MW 100B		1321			10.25			
MW 72B		1326			6.03			
MW 98A		1335			5.45			
MW 98B		1336			13.75			
MW 111A		1340			9.92			
MW 111B		1341			14.74			
SWMW 1I		1353			5.10			
SWMW 2I		1356			4.60			
SWMW 3I		1359			2.19			
SWMW 5I	↓	1404			3.45			

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Middle River Center
Location: MRC
Weather Conditions: SUNNY 34°
Tidally Influenced: Yes ___ No ___
Project No.: 112ECV7776
Personnel: W. Pryor
Measuring Device: Water Level Meter
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
SWMW 4S	3/7/17	1410			1.50			
SWMW 4I		1411			2.20			
SEMW 7I		1425						
SEMW 8S		1430						
SEMW 8I		1431			4.52			
MW 41A	↓	1440			10.95			

* All measurements to the nearest 0.01 foot

APPENDIX B—MONITORING-WELL PURGING AND SAMPLING RECORDS

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MAC GW 2017
PROJECT NUMBER: 112EC07776
WELL ID.: MW98A
DATE: 4/20/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0855	5.45	–	–	–	–	–	–	–	–	–
0900	5.92	200	5.95	0.582	268	6.67	19.51	375	0.2	cloudy, red
0905	6.15	200	6.63	0.561	78.3	5.82	16.66	379	0.3	cloudy, red
0910	6.56	200	6.49	0.556	55.0	5.78	15.76	389	0.3	cloudy
0915	6.70	200	6.53	0.553	38.0	5.58	15.87	391	0.3	cloudy
0920	6.92	200	6.58	0.550	30.3	5.45	15.61	393	0.3	cloudy
0925	7.18	200	6.74	0.558	16.7	5.12	15.26	389	0.3	sl. cloudy
0930	7.25	200	6.76	0.564	13.2	4.91	15.13	391	0.3	sl. cloudy
0935	7.35	200	6.76	0.567	10.54	4.59	15.01	393	0.3	clear
0940	7.45	200	6.77	0.570	9.32	4.40	15.07	393	0.3	clear
		Sample VOCs, Lab dup @ 0940								

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MC GW 2017
PROJECT NUMBER: 112Tc07776
WELL ID.: MRC-MW98B-042017
DATE: 4/20/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0950	13.75	–	–	–	–	–	–	–	–	–
0955	14.95	200	5.02	0.693	13.1	0.49	16.51	411	0.3	clear
1000	15.60	150	4.92	0.696	9.55	0.20	16.70	397	0.3	clear
1005	16.18	150	4.89	0.699	3.49	0.17	17.07	385	0.3	clear
1010	16.85	150	4.87	0.701	7.65	0.09	17.11	376	0.3	clear
1015	17.55	150	4.84	0.694	3.31	0.00	17.65	365	0.3	clear
1020	17.75	150	4.85	0.688	2.47	0.00	18.20	357	0.3	clear
1025	18.00	150	4.85	0.687	1.33	0.00	18.64	347	0.3	clear
1030	18.15	150	4.86	0.679	1.47	0.00	19.12	340	0.3	clear
1035	18.30	150	4.85	0.676	2.16	0.00	19.49	332	0.3	clear
1040	18.40	150	4.85	0.677	1.58	0.00	19.46	330	0.3	clear
	Sample VOCs + 1,4 dioxane @ 1040									

SIGNATURE(S):

PAGE___OF___

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC GW 2017
PROJECT NUMBER: 112SC07776
WELL ID.: MRC-MW111A-042017
DATE: 4/20/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1100	5.92	–	–	–	–	–	–	–	–	
1105	6.05	200	6.34	0.576	6.55	1.32	20.62	150	0.3	clear
1110	6.25	200	6.42	0.575	3.72	0.53	20.13	14	0.3	clear
1115	6.45	200	6.43	0.580	1.99	0.20	19.65	-45	0.3	clear
1120	6.60	200	6.44	0.585	1.40	0.08	19.37	-64	0.3	clear
1125	6.85	200	6.44	0.595	2.20	0.00	18.79	-74	0.3	clear
1130	7.04	200	6.43	0.596	3.18	0.00	18.02	-80	0.3	clear
1135	7.15	200	6.44	0.597	3.76	0.00	17.77	-85	0.3	clear
1140	7.20	200	6.43	0.597	4.48	0.00	17.45	-86	0.3	clear
1145	7.30	200	6.42	0.598	4.32	0.00	17.30	-86	0.3	clear
1150	Sample	VOCs, 1,4-dioxane		@ 1145						

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MW GW 2017
PROJECT NUMBER: 112G07776

WELL ID.: MW-MW111B-042018
DATE: 4/20/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Rlm.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1155	14.74	200	—	—	—	—	—	—	—	
1200	15.30	200	5.88	0.331	54.4	0.26	18.63	-35	0.2	cloudy
1205	15.45	200	5.81	0.308	48.2	0.11	19.68	-25	0.1	cloudy
1210	15.45	200	5.79	0.297	44.9	0.05	19.81	-21	0.1	cloudy
1215	15.45	200	5.76	0.290	34.9	0.00	20.14	-19	0.1	cloudy
1220	15.45	200	5.75	0.286	28.5	0.00	20.44	-18	0.1	cloudy
1225	15.45	200	5.75	0.283	24.6	0.00	20.81	-17	0.1	cloudy
1230	15.45	200	5.74	0.284	21.6	0.00	20.71	-17	0.1	sl. cloudy
1235	15.45	200	5.75	0.282	17.8	0.00	21.06	-17	0.1	sl. cloudy
1240	15.45	200	5.76	0.286	14.3	0.00	20.54	-18	0.1	clear
1245	15.45	200	5.74	0.288	12.4	0.00	20.44	-17	0.1	clear
1250	15.45	200	5.74	0.289	10.8	0.00	20.56	-18	0.1	clear
1255	15.45	200	5.75	0.259	9.85	0.00	20.40	-17	0.1	clear
1300	15.45	200	5.75	0.256	9.50	0.00	20.95	-15	0.1	clear
	Sample WG, 1,4-dioxane @ 1300									

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 1LI107776

WELL ID.: MCC-MW48A-041917
DATE: 4/19/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1302	8.00	—	—	—	—	—	—	—	—	
1307	8.60	300	6.16	0.609	290	2.30	18.54	124	0.3	Started, very cloudy water
1308	8.80	200	6.17	0.611	114	0.56	18.16	-50	0.3	
1313	8.90	200	6.17	0.614	63.1	0.38	18.12	-62	0.3	
1323	8.80	200	6.17	0.614	30.9	0.10	18.00	-72	0.3	
1333	8.90	200	6.17	0.614	12.9	0.00	17.60	-80	0.3	
1338	8.80	200	6.16	0.615	0.0	0.00	17.55	-83	0.3	Clean water
1343	8.90	200	6.16	0.616	0.0	0.00	17.50	-85	0.3	
1348	8.90	200	6.18	0.616	0.0	0.00	17.49	-87	0.3	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Walt Rz

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW81B-041917
DATE: 4/19/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0913	10.00	—	—	—	—	—	—	—	—	
0914	10.50	300	6.01	0.601	280	4.46	18.35	251	0.3	Initial, no water
0919	10.95	300	6.50	0.590	64.1	1.74	18.02	-29	0.3	Cloudy Water
0924	11.10	200	6.59	0.587	35.2	1.16	18.11	-4	0.3	
0934	11.45	150	6.64	0.579	0.0	0.76	18.26	-7	0.3	
0944	11.50	100	6.65	0.573	0.0	0.47	18.47	-7	0.3	Clear Water
0949	11.53	100	6.66	0.569	0.0	0.45	18.54	-8	0.3	
0954	11.55	100	6.66	0.567	0.0	0.45	18.56	-8	0.3	
0959	11.57	100	6.67	0.565	0.0	0.44	18.55	-8	0.3	
			Well parameters stabilize							
			Sampling Begins							

SIGNATURE(S): Walt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Meddle River Center
PROJECT NUMBER: 112FC07776
WELL ID.: MRC-MW92C-041917
DATE: 4/19/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1100	11.20	—	—	—	—	—	—	—	—	
1101	12.00	300	6.59	1.54	91.2	6.28	20.72	155	0.1	Initial, NW odor Slightly Cloudy
1106	12.75	250	6.49	0.244	56.2	3.12	20.34	168	0.1	
1111	13.45	100	6.48	0.245	48.9	2.68	20.27	173	0.1	↓
1126	15.20	100	6.47	0.242	22.7	2.28	20.04	191	0.1	
1131	16.10	100	6.49	0.242	5.6	2.20	20.14	199	0.1	Clear water
1141	17.30	100	6.50	0.241	0.0	2.12	20.27	210	0.1	
1151	18.50	100	6.48	0.241	0.0	2.02	20.24	220	0.1	
1201	20.10	100	6.48	0.241	0.0	2.02	20.19	229	0.1	
1211	20.81	100	6.49	0.242	0.0	1.97	20.06	232	0.1	
1221	22.15	100	6.49	0.242	0.0	1.83	19.88	239	0.1	
1231	23.25	100	6.48	0.242	0.0	1.86	19.86	241	0.1	↓

Well parameters Stabilize did not Stabilize after 90 min max purge pump Work plan Sampling Begins

SIGNATURE(S): Wade Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW25A-042117
DATE: 4/21/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0944	12.91	—	—	—	—	—	—	—	—	
0945	13.63	300	5.54	0.551	1000	3.30	18.18	383	0.3	Initial, no odor
0952	13.80	100	5.55	0.553	831	2.54	17.88	367	0.3	Cloudy water
0955	14.75	100	5.53	0.557	8.03	1.94	17.47	342	0.3	
1005	15.03	100	5.50	0.559	352	1.42	16.97	299	0.3	
1015	15.55	100	5.39	0.562	295	1.19	17.00	273	0.3	
1025	15.95	100	5.46	0.565	258	0.96	17.07	234	0.3	
1035	16.23	100	5.48	0.574	222	0.76	17.10	206	0.3	
1045	16.40	100	5.51	0.578	193	0.62	17.15	188	0.3	
1055	16.40	100	5.52	0.575	146	0.42	17.26	164	0.3	
1105	16.40	100	5.51	0.590	128	0.35	17.35	151	0.3	
1115	16.40	100	5.48	0.594	111	0.26	17.33	141	0.3	

Well parameters did not stabilize after 90 min max purge pure work plan sampling begins

SIGNATURE(S): Watt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MCC-MW08B-042117
DATE: 4/21/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1244	-1.50	—	—	—	—	—	—	—	—	
1245	-1.50	300	6.58	0.179	834	2.14	18.07	257	0.1	Initial, no odor
1250	-1.50	300	6.76	0.172	833	1.01	17.94	250	0.1	Cloudy water
1255	-1.50	300	6.77	0.171	831	0.69	17.74	246	0.1	
1305	-1.50	300	6.75	0.170	834	0.27	17.72	237	0.1	
1315	-1.50	300	6.74	0.170	835	0.12	18.02	231	0.1	
1320	-1.50	300	6.74	0.170	835	0.00	18.07	228	0.1	
1325	-1.50	300	6.73	0.170	833	0.00	17.79	226	0.1	
1330	-1.50	300	6.74	0.170	833	0.00	17.92	224	0.1	
				WCR Parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112EC07726
WELL ID.: MRC-MW14B-041817
DATE: 4/18/17

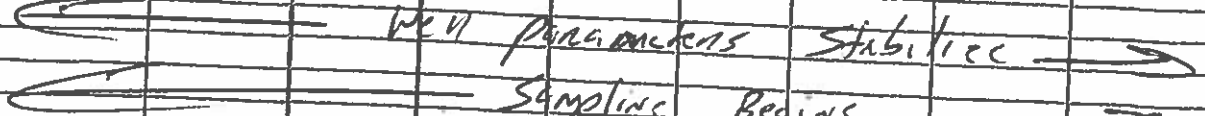
Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0754	4.25	—	—	—	—	—	—	—	—	
0755	5.12	300	6.67	1.70	155	4.33	20.23	207	0.9	Initial, no clear
0800	5.35	300	6.76	1.64	108	4.07	19.26	-87	0.9	Cloudy Water
0805	5.50	200	6.79	1.54	65.9	4.04	18.63	-118	0.8	↓
0810	5.70	150	6.76	1.42	50.2	3.99	18.46	-119	0.7	↓
0815	5.75	100	6.77	1.35	42.5	3.74	18.65	-120	0.7	↓
0820	5.76	100	6.77	1.32	10.50	3.63	18.78	-118	0.7	↓
0825	5.77	100	6.72	1.30	10.40	3.53	18.97	-117	0.7	Clear Water
0830	5.77	100	6.75	1.29	10.42	3.49	19.10	-117	0.7	↓
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 11EC07776
WELL ID.: MRC-MW100A-041817
DATE: 4/18/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1002	9.79	—	—	—	—	—	—	—	—	
1003	10.02	300	6.70	0.435	368	4.14	23.22	176	0.2	Initial purge water
1008	10.19	200	6.39	0.420	318	2.09	22.32	188	0.2	Cloudy water
1013	10.30	150	6.35	0.417	197	1.67	21.73	191	0.2	
1023	10.50	100	6.33	0.421	35.1	1.40	21.15	195	0.2	
1033	10.66	100	6.35	0.422	15.3	1.16	21.46	196	0.2	
1038	10.65	100	6.35	0.421	9.4	1.20	21.78	196	0.2	Clean water
1043	10.67	100	6.35	0.420	9.3	1.16	21.96	196	0.2	
1048	10.67	100	6.36	0.420	9.4	1.13	22.22	195	0.2	



SIGNATURE(S): Matt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW100B-041817
DATE: 4/18/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1107	10.25	—	—	—	—	—	—	—	—	
1108	11.02	300	5.49	0.270	256	2.01	22.04	240	0.1	Initial, no odor cloudy water
1113	12.00	200	5.45	0.272	263	0.90	22.03	216	0.1	
1118	12.55	200	5.46	0.276	223	0.43	21.86	184	0.1	
1128	13.60	100	5.43	0.277	203	0.10	21.75	145	0.1	
1138	15.02	100	5.42	0.277	188	0.00	21.76	116	0.1	
1148	15.80	100	5.41	0.277	178	0.00	21.85	107	0.1	
1158	16.80	100	5.41	0.279	152	0.00	21.50	98	0.1	
1208	17.70	100	5.41	0.277	131	0.00	22.20	93	0.1	
1218	18.60	100	5.41	0.278	134	0.00	22.84	88	0.1	
1228	19.30	100	5.42	0.278	126	0.00	22.32	86	0.1	
1238	20.50	100	5.41	0.277	98.5	0.00	22.50	84	0.1	

Well parameters did not stabilize after 90 min max purge pure work plan sampling begins

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle Raven Center
PROJECT NUMBER: 112E007776

WELL ID.: MRC-MW72B-041817
DATE: 4/18/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1418	6.03	—	—	—	—	—	—	—	—	Initial, no odor
1419	6.53	300	5.14	0.060	462	4.57	27.62	272	0.0	Cloudy water
1424	6.81	200	5.08	0.060	437	1.15	26.27	264	0.0	
1429	6.81	100	5.07	0.060	436	0.91	25.76	266	0.0	
1439	6.81	100	5.07	0.059	298	0.55	25.34	261	0.0	
1449	6.81	100	5.05	0.058	130	0.46	25.10	255	0.0	
1454	6.81	100	5.05	0.058	107	0.43	25.00	258	0.0	
1459	6.81	100	5.04	0.058	9.98	0.42	24.94	258	0.0	Clean water
1504	6.81	100	5.04	0.057	10.0	0.42	24.90	258	0.0	
			Well Parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Walt Pz

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW27A-041717
DATE: 4/17/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0745	9.75	—	—	—	—	—	—	—	—	
0746	9.85	300	5.27	2.66	0.0	2.43	19.64	371	1.4	Initial, no color
0751	9.85	250	5.73	2.66	0.0	1.50	19.44	215	1.4	Clear water
0756	9.85	250	5.81	2.71	0.0	1.15	18.09	130	1.4	
0806	9.85	250	5.86	2.74	0.0	0.67	17.19	42	1.4	
0816	9.85	250	5.87	2.75	0.0	0.38	16.86	5	1.4	
0821	9.85	250	5.88	2.76	0.0	0.30	16.72	-3	1.4	
0826	9.85	250	5.89	2.75	0.0	0.29	16.70	-6	1.4	
0831	9.85	250	5.90	2.75	0.0	0.29	16.54	-9	1.4	
			Well parameters stabilize							
			Sampling Begins							

SIGNATURE(S): Wade Poe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 116207776

WELL ID.: MRC-MW27B-041717
DATE: 4/17/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0900	12.16	—	—	—	—	—	—	—	—	
0901	12.53	300	6.44	0.762	14.0	10.38	18.25	100	0.4	Initial, no odor clear water
0906	13.83	250	6.28	0.712	0.0	8.26	18.04	98	0.3	
0911	14.30	100	6.12	0.693	0.0	7.66	18.19	113	0.3	
0921	15.15	100	5.94	0.677	0.0	7.11	18.18	145	0.3	
0931	16.43	100	5.85	0.666	0.0	6.56	18.23	173	0.3	
0941	18.51	100	5.82	0.662	0.0	6.11	18.42	195	0.3	
0951	20.10	100	5.82	0.655	0.0	5.75	18.39	215	0.3	
1001	21.55	100	5.82	0.655	0.0	5.48	18.34	230	0.3	
1011	23.65	100	5.81	0.656	0.0	5.37	18.30	237	0.3	
1021	25.72	100	5.82	0.656	0.0	5.26	18.25	243	0.3	
1031	27.80	100	5.82	0.657	0.0	5.17	18.22	248	0.3	

Well parameters did not stabilize after 90 min max purge per Work Plan Sampling Begins

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112E07776

WELL ID.: MRC-MW27C-041717
DATE: 4/17/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1058	13.30	—	—	—	—	—	—	—	—	Initial, MW odor
1059	13.30	300	5.44	0.076	0.0	3.07	18.02	300	0.0	Clean water
1104	13.30	300	5.29	0.049	0.0	1.05	17.54	302	0.0	
1109	13.30	300	5.27	0.049	0.0	0.98	17.54	302	0.0	
1114	13.30	300	5.25	0.048	0.0	0.75	17.51	304	0.0	
1119	13.30	300	5.20	0.047	0.0	0.60	17.51	305	0.0	
1124	13.30	300	5.17	0.046	0.0	0.35	17.52	306	0.0	
1129	13.30	300	5.15	0.046	0.0	0.40	17.52	307	0.0	
1134	13.30	300	5.12	0.046	0.0	0.39	17.50	309	0.0	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112t07776

WELL ID.: MRC-MW24A-041717
DATE: 4/17/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1342	7.85	—	—	—	—	—	—	—	—	
1343	8.23	300	4.49	2.27	0.0	3.36	17.73	408	1.1	Initial, no odor
1348	8.20	250	4.41	1.95	0.0	1.56	17.54	404	1.0	Clear water
1353	8.20	250	4.37	1.84	0.0	0.78	17.44	402	0.9	
1403	8.20	250	4.38	1.80	0.0	0.27	17.35	397	0.9	
1413	8.20	250	4.36	1.79	0.0	0.07	17.49	393	0.9	
1418	8.20	250	4.36	1.78	0.0	0.00	17.55	391	0.9	
1423	8.20	250	4.33	1.77	0.0	0.00	17.58	390	0.9	
1428	8.20	250	4.33	1.76	0.0	0.00	17.68	388	0.9	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle river Center
PROJECT NUMBER: 112FC07776

WELL ID.: MRC-MW93A-041317
DATE: 4/13/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1244	8.00	—	—	—	—	—	—	—	—	Initial, no data
1245	8.35	100	4.57	3.44	40.6	2.32	20.00	397	1.8	
1250	8.40	100	4.36	3.49	23.3	1.89	19.58	404	1.8	
1255	8.70	100	4.26	3.56	24.1	1.16	18.73	404	1.9	
1305	9.35	100	6.38	2.16	12.0	3.79	17.20	362	1.1	
1315	10.40	100	6.93	1.33	29.1	3.95	17.26	354	0.7	
1320	10.96	100	6.66	1.62	64.1	3.13	17.17	356	0.8	
1325	11.40	100	6.45	1.96	159	2.52	17.11	359	1.0	
1330	11.90	100	6.27	7.30	244	2.10	17.06	361	1.2	
1335				Dry						
		Let well recharge 90% of original volume								

SIGNATURE(S): Matt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW109B-041317
DATE: 4/13/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1354	16.50	—	—	—	—	—	—	—	—	
1355	16.60	300	5.96	1.77	42.0	4.14	18.81	252	0.9	Initial, no odor
1400	16.60	300	5.61	1.79	13.2	1.43	19.19	266	0.9	Slightly Cloudy
1405	16.60	300	5.60	1.76	8.6	0.72	19.83	272	0.9	↓
1415	16.60	300	6.03	1.42	0.0	0.62	20.61	269	0.7	Clear water
1425	16.60	300	6.22	1.13	0.0	0.45	21.30	269	0.6	↓
1430	16.60	300	6.22	1.09	0.0	0.82	21.57	270	0.5	
1435	16.60	300	6.20	1.08	0.0	0.82	21.77	272	0.5	
1440	16.60	300	6.18	1.09	0.0	0.83	21.85	274	0.5	
				Well Parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112IC07776

WELL ID.: MCC-MW109A-041317
DATE: 4/13/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1454 ~~1445~~	13.77	—	—	—	—	—	—	—	—	
1457	14.37	100	6.33	0.837	152	1.11	22.55	224	0.4	Initial, NV color
1500	←				Dry				→	Cloudy
			LCI Recharge 90% of Original							
			Volume							

SIGNATURE(S): WM

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW80A-041417
DATE: 4/14/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0844	5.99	—	—	—	—	—	—	—	—	
0850	6.15	300	5.50	0.501	591	6.33	16.73	353	0.2	Initial, no color
0855	6.40	300	6.20	0.472	360	4.47	15.35	352	0.2	Cloudy water
0900	6.50	200	6.26	0.464	154	3.79	15.02	354	0.2	↓
0910	6.95	150	6.40	0.439	74.7	3.53	14.70	356	0.2	↓
0920	7.00	100	6.36	0.306	14.2	5.50	14.55	354	0.2	Clear water
0925	7.05	100	6.37	0.279	0.0	5.69	14.54	361	0.2	↓
0930	7.06	100	6.38	0.277	0.0	5.60	14.54	362	0.1	↓
0935	7.10	100	6.40	0.277	0.0	5.45	14.44	362	0.1	↓
				Well parameters stabilize						
				Sampling Begins						

SIGNATURE(S): Walt Re

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112(07)76
WELL ID.: MRC-MW-80B-04/14/17
DATE: 4/14/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0959	8.02	—	—	—	—	—	—	—	—	
1000	8.71	300	6.12	0.307	15.4	4.96	15.87	374	0.1	Initial purge water cloudy
1005	9.45	200	5.99	0.291	137	2.64	15.77	376	0.1	
1010	9.95	100	5.87	0.287	82.1	2.55	15.84	375	0.1	
1020	11.00	100	5.90	0.284	33.1	2.25	15.91	374	0.1	
1030	12.35	100	5.87	0.284	19.0	2.13	16.29	374	0.1	
1040	13.85	100	5.86	0.283	17.6	2.03	16.60	372	0.1	
1050	15.20	100	5.88	0.282	8.1	1.93	16.56	370	0.1	Clean water
1100	16.00	100	5.88	0.281	3.2	1.88	17.30	365	0.1	
1110	16.90	100	5.86	0.281	1.9	1.79	17.44	370	0.1	
1120	17.50	100	5.86	0.281	0.0	1.82	17.60	369	0.1	
1130	18.22	100	5.87	0.281	0.0	1.77	17.87	369	0.1	

Well parameters did not stabilize after 90 min max purge pump WORK plan Samples Begins

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112EC07776
WELL ID.: MRC-MW22B-041417
DATE: 4/14/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1144	16.55	—	—	—	—	—	—	—	—	—
1145	12.45	300	5.47	0.146	27.8	3.80	17.98	358	0.1	Initial, no odor
1150	13.40	200	5.16	0.123	11.8	1.95	17.53	354	0.1	Slightly cloudy
1155	14.45	100	5.13	0.117	2.4	1.39	17.65	350	0.1	Clear water
1205	15.40	100	5.03	0.116	1.4	1.21	18.44	349	0.1	
1215	16.87	100	5.00	0.114	0.0	1.06	18.90	348	0.1	
1225	18.00	100	5.00	0.113	0.0	0.99	19.16	348	0.1	
1235	19.50	100	5.00	0.114	0.0	0.85	19.20	330	0.1	
1245	20.95	100	5.00	0.114	0.0	0.77	19.22	322	0.1	
1255	22.00	100	5.00	0.114	0.0	0.65	19.25	315	0.1	
1305	23.80	100	5.00	0.114	0.0	0.60	19.28	311	0.1	
1315	24.85	100	5.00	0.114	0.0	0.55	19.31	310	0.1	

Well parameters did not stabilize after 90 min max purge plan
Will plan Sampling Begins

SIGNATURE(S): Will Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW02A-041417
DATE: 4/14/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1413	6.81	—	—	—	—	—	—	—	—	
1414	7.50	200	5.08	0.678	18.5	3.64	22.23	350	0.3	Initial, no odor
1419	7.75	150	5.04	0.692	6.3	2.36	21.55	349	0.3	Slight/ Cloudy
1424	7.90	100	5.02	0.717	0.5	1.88	20.94	348	0.3	Clear water
1434	8.10	100	5.00	0.761	0.0	1.62	20.31	348	0.4	
1444	8.15	100	4.97	0.763	0.0	1.70	19.75	349	0.4	
1449	8.17	100	4.95	0.764	0.0	1.64	19.60	349	0.4	
1454	8.17	100	4.93	0.765	0.0	1.63	19.56	350	0.4	
1459	8.19	100	4.91	0.766	0.0	1.61	19.40	350	0.4	
				WQM parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): Matt B

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC GW 217
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW10A-041417
DATE: 4/14/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1215	1.55	–	–	–	–	–	–	–	–	–
1220	1.85	300	6.37	0.444	OVR	3.71	15.61	-39	0.2	cloudy
1225	2.40	300	6.32	0.453	31.9	1.23	13.97	-55	0.2	cloudy
1230	3.20	300	5.94	0.459	22.1	0.41	13.53	-42	0.2	clear
1235	3.61	300	5.90	0.457	21.6	0.03	13.89	-43	0.2	clear
1240	4.08	300	5.84	0.459	25.6	0.00	13.83	-41	0.2	clear
1245	4.56	300	5.83	0.457	24.8	0.00	13.95	-42	0.2	clear
1250	5.04	300	5.83	0.460	26.2	0.00	14.01	-44	0.2	Sl. cloudy
1255	5.51	300	5.88	0.462	28.1	0.00	14.08	-48	0.2	Sl. cloudy
1300	6.02	300	5.99	0.464	25.2	0.00	14.14	-53	0.2	Sl. cloudy
1305	6.51	300	6.02	0.464	27.4	0.00	14.36	-56	0.2	Sl. cloudy
1315	7.15	300	6.22	0.457	30.2	0.00	14.51	-66	0.2	cloudy
1325	7.60	300	6.58	0.452	35.1	0.00	14.50	-90	0.2	cloudy, brown
1335	8.12	300	6.63	0.451	34.2	0.00	14.37	-94	0.2	cloudy
1345	8.50	300	6.65	0.451	37.2	0.00	14.30	-95	0.2	cloudy
		Sample	VOCs, 1/4 chokeline		@ 1345		90 min purge max			

SIGNATURE(S): [signature]

PAGE 2 OF 2

* Pump will not run any lower, turns off when less than 300 is attempted.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC GW 2017
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW70B-041417
DATE: 4/14/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0945	2.90	–	–	–	–	–	–	–	–	
0950	5.50	200	6.22	0.440	OVR	0.75	13.80	-30	0.2	dark grey
0955	6.90	200	6.35	0.435	OVR	0.66	13.88	-36	0.2	gray
1000	8.90	200	6.32	0.436	OVR	0.58	14.06	-37	0.2	gray
1005	9.75	200	6.38	0.440	OVR	0.78	14.32	-40	0.2	gray
1010	10.50	200	6.40	0.446	OVR	0.71	14.25	-43	0.2	gray
1015	11.80	200	6.38	0.456	OVR	0.61	14.38	-43	0.2	gray
1020	12.65	200	6.36	0.468	OVR	0.50	14.45	-44	0.2	gray
1025	13.45	200	6.38	0.483	75	0.43	14.58	-45	0.2	light gray, cloudy
1030	14.23	200	6.39	0.499	54	0.41	14.72	-46	0.2	cloudy
1035	14.52	200	6.39	0.503	50	0.28	14.96	-47	0.2	cloudy
1040	15.21	200	6.42	0.511	48	0.25	15.28	-46	0.2	cloudy
1045	15.45	200	6.39	0.522	45	0.21	15.43	-48	0.3	cloudy
1055	16.50	200	6.42	0.549	40	0.00	15.77	-53	0.3	cloudy
1105	17.02	200	6.42	0.557	38	0.00	16.11	-54	0.3	cloudy
1115	17.25	200	6.42	0.558	42	0.00	16.15	-54	0.3	cloudy
		Sample	VOCs, 14 dioxane,		Total Metals @ 1115			90 min purge limit		

SIGNATURE(S): [signature]

PAGE 2 OF 2

Going slowest pump can go ... drawdown not fixable, stabilizing around 15'

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC GW 2017
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW 70A-041417
DATE: 4/14/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0843	2.20	–	–	–	–	–	–		–	–
0850	2.61	300	6.28	1.51	11.7	2.75	12.60	-36	0.8	clear
0855	2.98	300	6.21	1.51	12.3	1.42	11.78	-57	0.8	clear
0900	3.28	300	6.22	1.52	9.53	0.94	11.52	-65	0.8	clear
0905	3.57	300	6.23	1.52	7.89	0.69	11.36	-71	0.8	clear
0910	3.82	300	6.24	1.52	9.29	0.93	11.43	-74	0.8	clear
0915	4.00	300	6.25	1.52	10.05	1.56	11.44	-77	0.8	clear
0920	4.15	300	6.24	1.52	10.62	1.50	11.38	-79	0.8	clear
0925	4.25	300	6.25	1.52	10.05	1.52	11.31	-79	0.8	clear
0930	4.30	300	6.25	1.52	9.35	1.45	11.35	-80	0.8	clear
	Sample VOC, 1,4 dioxane, Total Metals @ 0930									

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC GW 2017
PROJECT NUMBER: 112501776

WELL ID.: MRC-MW08A-041417
DATE: 4/14/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1355	0.2	300	–	–	–	–	–	–	–	–
1400	2.10	200	6.03	2.61	64.2	1.05	15.70	29	1.3	cloudy
1405	3.50	200	6.03	2.57	35.4	0.00	16.41	29	1.3	Sl. Cloudy
1410	3.65	200	6.03	2.56	32.5	0.00	16.69	29	1.3	Sl. Cloudy
1415	4.08	300	6.02	2.56	30.4	0.00	16.87	29	1.3	Sl. cloudy
1420	4.75	200	6.05	2.59	28.3	0.00	16.53	24	1.3	Sl. cloudy
1425	4.98	200	6.09	2.62	20.4	0.00	16.45	12	1.4	Sl. cloudy
1430	5.20	200	6.15	2.64	14.3	0.00	16.53	-3	1.4	clear
1435	5.35	200	6.16	2.64	11.8	0.00	16.60	-4	1.4	clear
1440	5.50	200	6.18	2.64	9.76	0.00	16.65	-5	1.4	clear
		Sample COC's 1,4 dioxane @ 1440								

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW12B-041210
DATE: 4/12/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0854	7.80	—	—	—	—	—	—	—	—	Initial, no odor
0900	3.50	300	6.23	0.178	138	2.50	18.57	338	0.1	cloudy water
0905	4.60	300	6.13	0.172	140	1.80	18.83	268	0.1	
0910	5.20	200	6.12	0.172	163	1.15	18.49	196	0.1	
0920	6.02	100	6.12	0.173	140	0.54	18.13	115	0.1	
0930	7.35	100	6.10	0.176	119	0.27	18.04	64	0.1	
0940	~~9.00~~ 9.00	100	6.10	0.178	98	0.22	18.19	48	0.1	
0950	10.75	100	6.11	0.179	92.4	0.61	18.32	24	0.1	
1000	11.45	100	6.10	0.179	91.2	0.00	18.28	21	0.1	
1010	12.65	100	6.10	0.179	90.0	0.00	18.23	18	0.1	
1020	13.50	100	6.11	0.180	58.0	0.00	18.19	15	0.1	
1030	14.10	100	6.11	0.182	64.0	0.00	18.16	11	0.1	

WCH parameters did not stabilize after 60 min max purge time limit. Flow sampling begins

SIGNATURE(S): Will Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW13A-041217
DATE: 4/12/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1135	1.75	—	—	—	—	—	—	—	—	Initial, no color
1136	1.90	300	7.13	0.696	83.7	1.72	19.45	-35	0.3	Cloudy water
1141	1.90	300	7.24	0.707	78.4	0.99	19.22	-102	0.3	↓
1146	1.90	300	7.27	0.719	76.5	0.33	18.73	-131	0.3	↓
1151	1.90	300	7.25	0.743	23.0	0.08	18.30	-139	0.4	↓
1206	1.90	300	7.23	0.746	5.8	0.00	18.46	-142	0.4	Clean water
1211	1.90	300	7.22	0.753	4.6	0.00	18.52	-142	0.4	↓
1216	1.90	300	7.21	0.756	4.0	0.00	18.64	-142	0.4	↓
1221	1.90	300	7.21	0.757	3.9	0.00	18.93	-141	0.4	↓
	←		WLL parameters stabilize							→
	←		Sampling Begins							→

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112EC07776

WELL ID.: MRC-MW12C-041217
DATE: 4/12/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1248	Top of PVC	—	—	—	—	—	—	—	—	
1249	↓	300	7.39	0.032	151	15.56	16.79	-61	0.0	Turbid, no color
1254		300	5.74	0.044	0.0	3.95	16.71	55	0.0	Clear water
1259		300	5.61	0.041	0.0	3.53	16.48	98	0.0	↓
1309		300	5.50	0.030	4.9	3.60	16.48	120	0.0	
1314		300	5.35	0.030	8.9	3.65	16.45	148	0.0	
1324		↓	5.20	0.028	10.5	3.72	16.39	184	0.0	
1329			5.18	0.028	14.9	3.78	16.42	220	0.0	
1334			5.14	0.027	14.5	3.82	16.38	254	0.0	
1339			5.14	0.027	14.4	3.75	16.50	260	0.0	
1344	↓	↓	5.14	0.027	14.5	3.72	16.46	264	0.0	↓

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW63A-041217
DATE: 4/12/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1423	3.66	—	—	—	—	—	—	—	—	
1424	4.05	300	5.46	1.97	927	3.71	17.34	289	1.0	Initial, mv often cloudy water
1429	4.05	300	5.43	2.09	192	0.69	15.35	239	1.1	
1434	4.05	300	5.44	2.10	132	0.25	15.05	205	1.1	
1444	4.05	300	5.44	2.11	79.2	0.00	14.92	140	1.1	
1454	4.05	300	5.70	1.86	37.8	0.00	14.63	93	0.9	
1459	4.05	300	5.81	1.73	15.5	0.00	14.43	97	0.9	Slightly cloudy
1504	4.05	300	5.84	1.70	15.7	0.00	14.28	93	0.8	
1509	4.05	300	5.89	1.68	15.7	0.00	14.23	90	0.8	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC GW 2017
PROJECT NUMBER: 112SC07876.13

WELL ID.: MRC-MW41A-041117
DATE: 4/11/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1145	10.95	–	–	–	–	–	–	–	–	
1150	11.50	200	6.46	3.61	22.2	0.00	19.68	-50	1.9	clear
1155	11.90	200	6.16	3.63	13.3	0.00	19.15	-48	1.9	clear
1200	12.10	200	6.00	3.63	12.7	0.00	18.98	-42	1.9	clear
1205	12.35	200	5.97	3.65	11.67	0.00	18.98	-46	1.9	clear
1210	12.55	200	5.94	3.66	11.40	0.00	19.14	-48	1.9	clear
1215	12.80	200	5.94	3.67	10.35	0.00	19.61	-51	1.9	clear
1220	13.00	200	6.00	3.62	4.44	0.00	19.74	-54	1.9	clear
1225	13.20	200	6.04	3.59	2.35	0.00	19.73	-56	1.9	clear
1230	13.30	200	6.05	3.58	2.20	0.00	19.80	-57	1.9	clear
		Sample	VOCs +	1,4-dioxane @		1230				

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRL GW 2017
PROJECT NUMBER: 112IC07776.13

WELL ID.: MRL-MW 6913-041117
DATE: 4/11/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0915	11.40 ??	300	~~5.25~~	-	-	-	-	-	-	
0920	13.20	300	5.25	0.286	12.26	0.00	17.26	103	0.1	clear
0925	13.30	300	5.01	0.262	10.20	0.00	17.35	152	0.1	
0930	13.40	300	4.93	0.254	8.30	0.00	17.47	160	0.1	
0935	13.50	300	5.03	0.250	7.25	0.00	17.52	206	0.1	
0940	13.60	300	5.11	0.249	5.26	0.00	17.63	222	0.1	
0945	13.70	300	5.14	0.249	5.66	0.00	17.69	229	0.1	
0950	13.80	300	5.15	0.248	5.77	0.00	17.73	222	0.1	
0955	13.90	300	5.16	0.249	5.62	0.00	17.73	227	0.1	
1000	14.00	300	5.16	0.249	5.60	0.00	17.84	228	0.1	
	Sample	locs	+ 1,4 dr	kane @	1000					

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MAC GW 2017
PROJECT NUMBER: 117601776.13

WELL ID.: MAC-MW69A-041117
DATE: 4/11/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1010	11.71	—	—	—	—	—		—	—	—
1015	11.73	200	6.13	2.22	27.0	0.00	16.32	-4	1.1	clear
1020	12.05	200	6.07	2.25	23.7	0.00	16.04	1	1.2	clear
1025	12.45	200	6.07	2.19	12.3	0.00	15.94	1	1.1	
1030	12.72	200	6.08	2.15	16.35	0.00	16.03	-4	1.1	
1035	12.98	200	6.08	2.14	9.26	0.00	15.92	-1	1.1	
1040	13.25	200	6.08	2.15	9.52	0.00	15.93	-2	1.1	
1045	13.50	200	6.10	2.15	9.76	0.00	16.18	-4	1.1	
1050	13.75	200	6.10	2.16	9.52	0.00	16.23	-5	1.1	
1055	14.00	200	6.10	2.16	9.58	0.00	16.25	-5	1.1	
	Sample VOCs + 1,4 dioxane @ 1055									

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-SWMW-45-041117
DATE: 4/11/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0904	1.50	—	—	—	—	—	—	—	—	Initial, no odor
0905	3.70	300	5.92	1.30	259	4.32	13.79	310	0.6	Cloudy water
0910	3.30	300	6.06	1.27	145	2.02	14.41	244	0.6	
0915	3.30	300	6.10	1.27	76.7	1.13	14.28	181	0.6	
0925	3.30	300	6.14	1.25	25.9	0.37	14.81	90	0.6	
0935	3.30	300	6.16	1.20	9.1	0.13	16.36	44	0.6	Clean water
0940	3.30	300	6.17	1.18	2.3	0.06	17.00	29	0.6	
0945	3.30	300	6.16	1.17	0.9	0.04	17.27	22	0.6	
0950	3.30	300	6.16	1.16	0.0	0.06	17.52	19	0.6	

Well parameters Stabilize

Sampling Begins

SIGNATURE(S): Walt Pz

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112FC07776
WELL ID.: MRC-SWMW-4I-041117
DATE: 4/11/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1004	2.20	—	—	—	—	—	—	—	—	Initial, no odor
1005	2.50	300	7.17	1.41	8.9	2.45	15.74	-90	0.7	Clear Water
1010	2.40	300	7.27	1.30	8.1	0.50	15.49	-150	0.6	
1015	2.40	300	7.23	1.19	4.4	0.21	15.63	-158	0.6	
1025	2.40	300	7.19	1.04	9.6	0.06	15.92	-164	0.5	
1035	2.40	300	7.18	1.04	10.0	0.00	15.96	-171	0.5	
1040	2.40	300	7.19	1.04	9.9	0.00	15.91	-172	0.5	
1045	2.40	300	7.18	1.04	9.8	0.00	16.05	-172	0.5	
1050	2.40	300	7.18	1.04	9.8	0.00	16.16	-172	0.5	
			Well Parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Wolf

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112ICO7776

WELL ID.: MRC-MW11C-041117
DATE: 4/11/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1115	1.23	—	—	—	—	—	—	—	—	Initial, muddy clean water
1116	1.25	300	6.74	0.047	0.0	6.07	18.30	-19	0.0	
1121	1.25	300	6.26	0.044	0.0	4.64	18.32	58	0.0	
1126	1.25	300	6.01	0.043	0.0	4.30	17.75	100	0.0	
1136	1.25	300	5.85	0.042	0.0	3.95	17.50	155	0.0	
1146	1.25	300	5.80	0.042	0.0	3.74	17.26	188	0.0	
1151	1.25	300	5.79	0.041	0.0	3.69	16.92	199	0.0	
1156	1.25	300	5.77	0.041	0.0	3.60	16.79	204	0.0	
1201	1.25	300	5.76	0.041	0.0	3.55	16.93	209	0.0	
			Well parameters stabilized →							
			Sampling Beg. 25							

SIGNATURE(S): Matt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW12A-041117
DATE: 4/11/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1407	1.60	—	—	—	—	—	—	—	—	Initial, no odor
1408	2.10	300	6.25	0.350	800	1.50	31.11	95	0.2	Cloudy Water
1413	2.77	300	6.27	0.370	760	0.55	28.61	-22	0.2	
1418	3.15	200	6.23	0.387	768	0.39	27.49	-46	0.2	
1428	3.50	150	6.23	0.403	907	0.09	26.38	-69	0.2	
1438	3.85	150	6.24	0.427	889	0.02	24.72	-73	0.2	
1448	4.02	100	6.32	0.425	>999	0.00	25.28	-84	0.2	
1458	4.55	100	6.34	0.426	>999	0.00	25.37	-87	0.2	
1503	4.95	100	6.36	0.427	>999	0.00	24.54	-89	0.2	
1513	5.50	100	6.37	0.427	>999	0.00	24.40	-91	0.2	
1523	5.95	100	6.38	0.428	>999	0.00	24.75	-93	0.2	
1528	6.30	100	6.39	0.429	>999	0.00	24.70	-95	0.2	

Well parameters did not stabilize after 90 min Max Purge. Purge Water then Samplers Begins

SIGNATURE(S): Nate R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 114107776

WELL ID.: SWMW-1I-04/017
DATE: 4/10/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0857	5.10	—	—	—	—	—	—	—	—	Initial, no data
0858	5.75	300	5.65	0.928	222	2.49	17.55	315	0.5	Cloudy water
0903	6.55	300	6.24	0.925	200	1.37	17.75	129	0.5	
0908	7.07	200	6.36	0.939	168	0.89	17.61	19	0.5	
0913	7.80	150	6.45	0.964	132	0.47	17.66	-50	0.5	
0928	8.33	100	6.51	0.974	106	0.27	18.33	-75	0.5	
0933	8.35	100	6.52	0.967	100	0.20	18.76	-80	0.5	
0938	8.37	100	6.53	0.966	98.8	0.19	19.02	-82	0.5	
0943	8.40	100	6.53	0.965	100	0.18	19.25	-84	0.5	
		[illegible]								
				Well Parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112EC07776
WELL ID.: MRC-SLMW-2I-041017
DATE: 4/10/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1007	4.06	—	—	—	—	—	—	—	—	Initial, no water
1008	4.65	300	6.71	0.781	14.1	1.87	17.49	-38	0.4	clear water
1013	5.45	300	6.71	0.777	4.4	0.56	17.01	-74	0.4	
1018	5.50	200	6.72	0.772	3.2	0.23	17.23	-84	0.4	
1028	5.56	200	6.71	0.770	2.9	0.00	17.54	-94	0.4	
1038	5.55	150	6.71	0.770	4.3	0.00	17.83	-98	0.4	
1043	5.55	150	6.71	0.769	3.0	0.00	17.91	-100	0.4	
1048	5.55	150	6.72	0.768	2.6	0.00	18.10	-102	0.4	
1053	5.55	150	6.73	0.768	2.8	0.00	18.19	-104	0.4	

Well parameters Stabilize

Sampling Begins

SIGNATURE(S): Matt Ar

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-SWMW-3I-041017
DATE: 4/10/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1130	2.19	—	—	—	—	—	—	—	—	Initial, no odor
1131	2.20	300	6.90	0.823	0.0	2.02	19.07	51	0.4	Clear water
1136	2.35	300	6.86	0.779	0.0	0.43	19.14	-78	0.4	
1141	2.38	250	6.88	0.763	0.0	0.19	19.33	-98	0.4	
1157	2.38	250	6.92	0.809	0.0	0.00	18.05	-116	0.4	
1201	2.38	250	6.91	0.829	260	0.00	16.37	-122	0.4	Cloudy water
1206	2.38	250	6.92	0.838	257	0.00	17.09	-123	0.4	
1211	2.38	250	6.91	0.836	257	0.00	17.32	-124	0.4	
1216	2.38	250	6.91	0.836	258	0.00	17.56	-124	0.4	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-SWMW-SI-041017
DATE: 4/10/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1350	3.45	—	—	—	—	—	—	—	—	Initial, no odor
1351	4.07	300	6.63	0.597	100	1.47	30.22	67	0.3	cloudy water
1356	5.20	300	6.44	0.590	96.8	0.46	27.75	-34	0.3	
1401	5.70	200	6.36	0.582	177	0.20	27.01	-48	0.3	
1411	6.80	200	6.32	0.582	101	0.00	25.95	-60	0.3	
1421	7.25	100	6.35	0.585	38.8	0.00	26.10	-67	0.3	
1426	7.52	100	6.36	0.585	40.5	0.00	26.07	-69	0.3	
1431	7.55	100	6.37	0.587	40.2	0.00	26.00	-71	0.3	
1436	8.10	100	6.39	0.596	37.5	0.00	25.85	-73	0.3	
1446	8.60	100	6.41	0.606	32.8	0.00	25.70	-75	0.3	
1456	9.10	100	6.42	0.617	37.2	0.00	25.59	-77	0.3	
1506	9.82	100	6.43	0.625	38.0	0.00	25.52	-79	0.3	
1516	10.08	100	6.44	0.638	38.2	0.00	25.55	-81	0.3	
1526	10.86	100	6.44	0.633	39.7	0.00	25.48	-79	0.3	

Well parameters did not stabilize after 90 min of max purge pure work plan sampling begins

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112EC07776

WELL ID.: MRC-MW71B-040617
DATE: 4/6/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0842	3.55	—	—	—	—	—	—	—	—	Initial, no odor
0843	4.38	300	4.77	0.351	133	2.70	15.36	356	0.2	Cloudy water
0848	4.95	200	4.76	0.340	68.1	1.81	15.06	347	0.2	↓
0853	5.43	100	4.69	0.338	1.8	0.94	14.94	343	0.2	Clear water
0903	5.65	100	4.65	0.340	0.0	0.15	14.58	340	0.2	
0913	5.80	100	4.64	0.340	0.0	0.14	14.08	337	0.2	
0918	5.82	100	4.65	0.341	0.0	0.15	14.02	336	0.2	
0923	5.82	100	4.67	0.342	0.0	0.16	14.02	333	0.2	
0928	5.84	100	4.70	0.343	0.0	0.16	13.86	332	0.2	
			Well parameters stabilize							
			Sampling Begins							

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW71A-040617
DATE: 4/6/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1023	1.15	—	—	—	—	—	—	—	—	Initial, no odor
1024	1.80	300	6.40	0.762	939	6.81	13.31	288	0.4	Cloudy Water
1029	1.80	100	6.45	0.763	670	5.85	13.19	293	0.4	
1034	1.80	100	6.47	0.769	97.7	5.28	12.86	300	0.4	
1044	1.80	100	6.49	0.770	53.8	4.92	12.81	311	0.4	
1054	1.80	100	6.50	0.769	36.1	4.83	12.71	320	0.4	
1104	1.80	100	6.50	0.762	23.3	4.67	12.65	328	0.4	
1114	1.80	100	6.43	0.749	17.5	4.30	12.53	338	0.4	
1124	1.80	100	6.41	0.746	20.0	4.31	12.57	342	0.4	
1129	1.80	100	6.39	0.722	38.2	4.32	12.52	345	0.4	
1134	1.80	100	6.39	0.719	46.9	4.39	12.49	346	0.3	
1139	1.80	100	6.42	0.663	55.4	4.96	12.44	347	0.3	
1149	1.80	150	6.52	0.629	59.0	6.23	12.49	349	0.3	
1154	1.80	100	6.70	0.541	60.2	7.72	12.46	343	0.3	
			Well parameters did not stabilize							
	After 90 Min max Sampling Begins									

SIGNATURE(S): WMB

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112E07776

WELL ID.: MRC-MW87B-040617
DATE: 4/06/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1405	9.17	—	—	—	—	—	—	—	—	Initial measurements
1406	9.00	300	6.43	1.98	239	1.05	16.19	-35	1.0	Cloudy Water
1411	9.98	100	6.65	1.50	100	1.68	16.15	-21	0.8	
1416	10.42	100	6.80	1.26	62.5	1.91	16.10	-4	0.6	
1426	10.45	100	6.92	1.17	32.9	1.97	16.57	36	0.6	
1436	10.50	100	6.93	1.17	30.8	1.96	16.56	67	0.6	
1441	10.55	100	6.92	1.18	31.0	1.92	16.42	76	0.6	
1446	10.58	100	6.91	1.19	32.0	1.93	16.35	79	0.6	
1451	10.61	100	6.90	1.18	31.8	1.97	16.28	85	0.6	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): WMK

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW87A-040617
DATE: 4/6/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1339	11.95	—	—	—	—	—	—	—	—	Initial, no odor
1340	12.40	200	6.33	2.52	82.5	4.67	15.36	252	1.5	Slightly Cloudy
1345	12.75	100	6.33	2.89	45.5	2.14	15.31	45	1.5	↓
1350	13.00	100	6.33	2.86	36.9	1.14	15.21	-18	1.5	
1400	14.05	100	6.33	2.60	180	0.52	15.35	-46	1.3	
1405	←				Dry				→	

SIGNATURE(S): Wade B

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112I007776

WELL ID.: MRC-MW29A-040717
DATE: 4/7/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0904	4.97	—	—	—	—	—	—	—	—	Initial pre calon clean water
0905	5.12	300	4.21	0.777	3.5	4.04	16.53	404	0.4	
0910	5.05	200	4.15	0.746	0.0	1.90	16.50	406	0.4	
0915	5.05	200	4.09	0.756	0.0	1.21	16.18	407	0.4	
0925	5.05	200	4.05	0.782	0.0	0.67	15.07	409	0.4	
0935	5.05	200	4.00	0.797	0.0	0.52	14.52	409	0.4	
0940	5.05	200	4.00	0.799	0.0	0.52	14.52	408	0.4	
0945	5.05	200	4.00	0.800	0.0	0.51	14.42	407	0.4	
0950	5.05	200	4.02	0.800	0.0	0.50	14.30	405	0.4	
				Well parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): Matt B

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112EC07776

WELL ID.: MRC MW77A-040717
DATE: 4/7/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1012	6.90	—	—	—	—	—	—	—	—	Initial, no odor
1013	7.15	300	5.42	2.09	721	3.58	14.72	359	1.1	cloudy water
1018	7.15	200	5.63	2.08	582	1.27	14.48	263	1.1	
1023	7.15	200	5.66	2.07	341	0.77	14.61	197	1.1	
1033	7.15	200	5.65	2.09	232	0.46	14.55	133	1.1	
1043	7.15	200	5.63	2.10	166	0.33	14.73	107	1.1	
1048	7.15	200	5.60	2.16	130	0.26	14.68	97	1.1	
1053	7.15	200	5.52	2.24	92.0	0.22	14.74	94	1.1	
1058	7.15	200	5.50	2.25	88.6	0.22	14.75	92	1.1	
1103	7.15	200	5.47	2.27	89.0	0.21	14.68	91	1.1	
				Well parameters stabilized						
				Sampling Begins						

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW15A-040717
DATE: 4/7/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1126	0.40	—	—	—	—	—	—	—	—	Initial purge odor
1127	0.40	300	6.25	1.42	>999	4.47	13.07	148	0.7	Cloudy Water
1132	0.95	300	6.26	1.39	229	2.45	12.78	143	0.7	
1137	0.95	280	6.27	1.38	90.5	1.67	12.67	140	0.7	
1147	0.95	280	6.36	1.30	90.2	0.97	12.60	141	0.6	
1157	0.95	280	6.33	1.37	69.8	0.69	12.57	145	0.7	
1202	0.95	280	6.29	1.45	65.6	0.60	12.50	146	0.7	
1207	0.95	280	6.25	1.47	65.8	0.61	12.41	147	0.8	
1212	0.95	280	6.21	1.49	66.0	0.61	12.32	146	0.8	
				Well parameters Stabilized						
				Sampling Begins						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112F007776

WELL ID.: MRC-MW11A-040717
DATE: 4/7/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1330	0.60	—	—	—	—	—	—	—	—	Initial purge
1331	1.10	300	7.44	0.212	>999	15.07	11.98	208	0.1	Cloudy water
1336	1.33	300	8.21	0.146	>999	8.29	12.00	204	0.1	
1341	1.25	180	8.58	0.138	>999	7.21	12.01	206	0.1	
1351	1.25	180	8.90	0.136	>999	6.57	11.54	214	0.1	
1401	1.25	180	8.79	0.153	>999	5.76	11.81	225	0.1	
1411	1.25	180	8.64	0.179	>999	5.03	11.78	236	0.1	
1421	1.25	180	8.53	0.196	>999	4.54	12.01	244	0.1	
1431	1.25	180	8.41	0.210	854	4.17	12.13	258	0.1	
1441	1.25	180	8.30	0.224	658	3.71	11.92	255	0.1	
1451	1.25	180	8.27	0.228	603	3.60	11.88	257	0.1	
1501	1.25	180	8.21	0.236	537	3.37	11.87	258	0.1	

Well parameters did not stabilize after 90 min max purge per Work Plan Sampling Begins

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW17A-040517
DATE: 4/5/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0930	7.75	—	—	—	—	—	—	—	—	Initial, no odor
0931	8.20	300	5.57	2.33	706	3.23	18.11	253	1.2	Cloudy water
0936	8.75	250	5.80	2.26	393	1.72	18.21	227	1.2	
0941	8.25	250	5.83	2.27	169	1.16	18.05	205	1.2	
0946	8.25	250	5.85	2.26	139	0.82	17.98	186	1.2	
0956	8.25	250	5.91	2.29	76.5	0.42	18.04	142	1.2	
1006	8.25	250	5.96	2.33	48.2	0.30	18.07	114	1.2	
1011	8.25	250	5.99	2.38	32.2	0.25	18.02	96	1.2	
1016	8.25	250	6.03	2.44	22.6	0.20	17.90	72	1.3	
1021	8.75	250	6.10	2.53	20.0	0.15	17.69	46	1.3	
1031	8.25	250	6.16	2.65	6.5	0.07	17.20	9	1.4	Clear water
1041	8.25	250	6.22	2.72	1.9	0.01	16.73	-16	1.4	
1051	8.25	250	6.27	2.76	3.5	0.00	16.34	-35	1.4	
1101	8.75	250	6.30	2.81	0.0	0.00	16.10	-46	1.5	
			Well parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112207776

WELL ID.: MRC-MW64A-040517
DATE: 4/5/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1127	8.22	—	—	—	—	—	—	—	—	Initial, MW odor
1128	8.41	300	6.45	3.55	9.5	1.36	17.31	-60	1.8	Clear water
1133	8.60	300	6.48	3.26	9.9	0.79	17.36	-67	1.7	
1138	8.65	200	6.49	3.19	11.0	0.39	17.97	-76	1.6	
1148	8.85	100	6.50	2.96	5.3	0.05	19.02	-86	1.5	
1158	8.90	100	6.52	2.90	0.0	0.00	19.27	-92	1.5	
1203	8.93	100	6.52	2.90	0.0	0.00	19.39	-94	1.5	
1208	8.95	100	6.52	2.88	0.0	0.00	19.53	-96	1.5	
1213	8.97	100	6.53	2.88	0.0	0.00	19.66	-100	1.5	
				All parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): WMF

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112FC07776

WELL ID.: MRC-MW18A-040517
DATE: 4/5/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1311	3.80	—	—	—	—	—	—	—	—	
1312	4.50	300	6.61	4.51	197	2.74	22.56	64	2.4	Initial, no odor cloudy water
1317	5.30	200	6.61	4.74	169	0.79	21.56	45	2.5	
1322	6.25	100	6.62	4.64	208	0.34	20.47	42	2.6	
1332	6.27	100	6.62	5.04	155	0.04	19.62	37	2.7	
1342	6.29	100	6.68	4.99	56.4	0.00	20.28	26	2.7	
1347	6.31	100	6.99	5.00	15.7	0.00	20.30	24	2.7	Slightly cloudy
1352	6.33	100	6.92	4.98	15.5	0.00	20.33	20	2.7	
1357	6.35	100	6.96	4.99	15.8	0.00	20.40	14	2.7	
			WQM parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Will R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112B107776
WELL ID.: MRC-MW07A-040517
DATE: 4/5/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1420	12.20	—	—	—	—	—	—	—	—	Initial, no odor clear water
1421	12.75	300	5.72	1.97	0.0	4.17	22.14	133	1.0	
1426	12.85	250	5.28	1.92	0.0	2.53	22.46	153	1.0	
1431	13.00	250	5.17	1.92	0.0	1.99	22.38	167	1.0	
1441	13.25	100	5.12	1.91	0.0	1.72	22.32	181	1.0	
1451	13.30	100	5.10	1.91	0.0	1.62	22.05	192	1.0	
1456	13.33	100	5.10	1.91	0.0	1.60	21.98	196	1.0	
1501	13.36	100	5.10	1.92	0.0	1.60	22.04	201	1.0	
1506	13.36	100	5.10	1.91	0.0	1.60	22.08	204	1.0	
			Well parameters stabilize							
			Sampling Begins							

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112FC07776

WELL ID.: MRC-MW50A-040417
DATE: 4/4/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1027	14.75	—	—	—	—	—	—	—	—	Initial, MW odor
1028	15.19	300	5.24	4.78	228	3.52	19.10	389	2.6	cloudy water
1033	15.00	100	5.24	4.84	11.0	2.09	18.38	340	2.6	clear water
1038	15.00	100	5.22	4.85	1.4	1.52	18.74	391	2.6	
1043	15.00	100	5.22	4.86	0.8	1.10	18.65	392	2.6	
1058	15.00	100	5.20	4.86	4.4	0.93	18.64	393	2.6	
1103	15.00	100	5.19	4.86	3.7	0.84	18.74	393	2.6	
1108	15.00	100	5.18	4.87	1.1	0.83	18.76	394	2.6	
1113	15.00	100	5.18	4.87	1.2	0.83	18.81	394	2.6	
			Well parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-90B-040417
DATE: 4/4/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1132	7.03	—	—	—	—	—	—	—	—	Initial, no odor
1133	7.70	300	10.24	1.29	50.8	6.74	18.36	250	0.6	slightly cloudy
1138	8.31	200	11.47	1.29	0.0	4.03	18.03	228	0.6	clean water
1143	8.40	100	11.52	1.32	0.0	3.29	18.12	223	0.7	
1153	8.50	100	11.55	1.34	0.0	2.96	18.19	221	0.7	
1203	8.50	100	11.56	1.34	0.0	2.80	18.21	221	0.7	
1208	8.50	100	11.54	1.32	0.0	2.72	18.26	222	0.7	
1213	8.50	100	11.53	1.32	0.0	2.67	18.30	222	0.7	
1218	8.50	100	11.52	1.31	0.0	2.58	18.29	222	0.7	
			Well parameters stabilize							
			Sampling Begins							

SIGNATURE(S): Matt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: mrc-mw96A-040417
DATE: 4/4/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1353	13.00	—	—	—	—	—	—	—	—	
1354	13.30	300	4.57	0.722	33.8	2.40	22.31	385	0.4	Initial, no odor
1359	13.45	100	4.15	0.740	13.9	1.18	21.08	383	0.4	Slightly cloudy
1404	13.62	100	4.02	0.740	18.2	0.55	20.23	380	0.4	↓
1414	14.00	100	3.95	0.743	7.1	0.23	19.62	379	0.4	Clean water
1424	14.70	100	3.92	0.748	0.0	0.00	19.27	374	0.4	↓
1429	14.80	100	3.92	0.748	0.0	0.00	19.25	374	0.4	
1434	14.85	100	3.92	0.748	0.0	0.00	19.26	374	0.4	
1439	14.90	100	3.92	0.750	0.0	0.00	19.20	372	0.4	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112COTTG

WELL ID.: MRC-MW96B-040417
DATE: 4/4/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1501	15.72	—	—	—	←	—	—	—	—	
1502	15.91	300	4.53	2.99	0.0	7.31	18.53	344	1.6	Initial, no color clear water
1507	15.83	100	4.51	3.35	0.0	1.87	18.36	344	1.8	
1512	15.83	100	4.44	3.49	0.0	0.69	18.31	347	1.8	
1522	15.83	100	4.36	3.50	0.0	0.21	18.45	350	1.8	
1532	15.83	100	4.33	3.46	0.0	0.00	18.43	352	1.8	
1537	15.83	100	4.33	3.43	0.0	0.00	18.47	353	1.8	
1542	15.83	100	4.32	3.41	0.0	0.00	18.50	354	1.8	
1547	15.83	100	4.32	3.39	0.0	0.00	18.57	354	1.8	
	←	—	Well	Parameters		Stabilize		→		
	←	—		Sampling		Begins		→		

SIGNATURE(S): Wae

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112G07776-13
WELL ID.: MRC-MW19A-040317
DATE: 4/3/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1230	7.11	—	—	—	—	—	—	—	—	
1235	7.82	200	4.66	0.482	152	2.90	17.47	334	0.2	
1240	8.18	200	4.46	0.483	97.6	2.43	16.59	331	0.2	
1245	8.55	200	4.25	0.485	50.9	1.98	16.34	328	0.2	
1250	8.76	200	4.23	0.485	40.5	1.88	16.24	329	0.2	
1255	9.12	200	4.21	0.485	31.2	1.82	16.16	330	0.2	
1300	9.23	200	4.20	0.485	24.5	1.76	16.15	333	0.2	
1305	9.36	200	4.18	0.485	12.3	1.70	16.15	336	0.2	
1310	9.41	200	4.19	0.486	5.8	1.69	16.14	337	0.2	
1315	9.48	200	4.20	0.487	1.4	1.68	16.13	341	0.2	
1320	9.53	200	4.20	0.490	1.8	1.64	16.10	342	0.2	
1325	9.56	200	4.20	0.493	1.8	1.60	16.06	343	0.2	
1330	9.59	200	4.20	0.496	1.6	1.40	16.04	344	0.2	
1335	9.61	200	4.20	0.499	1.4	1.30	16.02	345	0.2	
[redacted]	Sampling									
[redacted]										

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 114IC07776-13

WELL ID.: MRC-MW21A-040317
DATE: 4/3/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0805	2.56	~	~	~	~	—	—	—	—	
0810	3.64	200	7.27	0.561	71000	2.27	13.31	186	0.3	
0815	4.08	200	7.29	0.562	734	1.71	13.22	59	0.3	
0820	4.43	200	7.31	0.562	676	1.03	13.15	27	0.3	
0825	4.70	200	7.32	0.561	692	0.91	13.14	-2	0.3	
0830	4.92	200	7.33	0.560	759	0.76	13.17	-14	0.3	
0835	5.17	200	7.33	0.562	405	0.58	13.21	-51	0.3	
0840	5.83	200	7.34	0.560	327	0.45	13.34	-62	0.3	
0845	6.12	200	7.34	0.559	251	0.34	13.51	-67	0.3	
0850	6.21	200	7.33	0.558	209	0.28	13.49	-69	0.3	
0855	6.43	200	7.32	0.558	189	0.24	13.47	-68	0.3	
0900	6.61	200	7.32	0.556	163	0.19	13.53	-69	0.3	
0905	6.79	200	7.32	0.552	171	0.14	13.60	-69	0.3	
Sampling										

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112IC07776-13
WELL ID.: MRC-MW21R-040317
DATE: 4/3/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0920	10.09	—	—	—	—	—	—	—	—	
0925	11.45	300	6.30	0.217	486	1.24	16.21	4	0.1	
0930	11.35	200	6.11	0.186	381	0.60	16.57	28	0.1	
0935	11.57	200	6.00	0.180	195	0.67	16.70	50	0.1	
0940	11.75	200	5.99	0.180	162	0.71	16.84	62	0.1	
0945	11.83	200	5.98	0.180	145	0.75	16.92	73	0.1	
0950	11.96	200	5.94	0.186	133	0.68	17.05	79	0.1	
0955	12.05	200	5.90	0.191	118	0.60	17.15	85	0.1	
1000	12.00	200	5.95	0.198	103	0.48	17.29	76	0.1	
1005	12.18	200	5.99	0.207	94.5	0.33	17.44	72	0.1	
1010	12.23	200	5.99	0.211	91.7	0.20	17.58	63	0.1	
1015	12.36	200	5.99	0.215	81.2	0.11	17.65	54	0.1	
1020	12.59	200	5.99	0.223	89.7	0.03	17.72	49	0.1	
1025	12.71	200	6.00	0.229	88.1	0.00	17.82	46	0.1	
Sample										

SIGNATURE(S): [signature]

Tetra Tech, Inc.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112IC07776-32
WELL ID.: MRC-MW22A-040317
DATE: 4/3/2017

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Sal (ppt)	Comments
1120	13.6	--	--	--	--	--	--	--	--	
1125	14.01	200	6.22	0.19	141	1.83	19.41	174	0.1	
1130	14.51	200	6.18	0.211	138	1.38	18.31	178	0.1	
1135	15.29	200	6.15	0.21	99	1.4	18.18	189	0.1	
1140	15.87	200	6.15	0.206	94.7	1.42	18.15	200	0.1	
1145	16.78	200	6.15	0.204	78.9	1.42	18.14	210	0.1	
1150	17.55	200	6.15	0.202	55.8	1.42	18.18	219	0.1	
1155	18.23	200	6.16	0.2	39.7	1.43	18.22	227	0.1	
1200	19.74	200	6.16	0.198	12.2	1.46	18.27	235	0.1	
1205	20.52	200	6.16	0.196	7.5	1.5	18.32	211	0.1	
Sampled the Well										

SIGNATURE(S): _____

PAGE___OF___

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 12TC07776-13
WELL ID.: MRC-MW37A-032917
DATE: 3/29/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0920	7.30	—	—	—	—	—	—	—	—	
0925	8.08	200	6.03	0.568	972	3.73	12.63	38	0.3	
0930	8.13	200	6.01	0.551	273	1.96	12.58	380	0.3	
0935	8.28	200	6.00	0.534	198	1.89	12.53	381	0.3	
0940	8.31	200	5.99	0.562	127	1.63	12.57	379	0.3	
0945	8.34	200	5.99	0.586	114	1.54	12.64	378	0.3	
0950	8.39	200	5.98	0.588	96.3	2.71	12.79	376	0.3	
0955	8.48	200	5.97	0.590	87.1	4.72	12.81	345	0.3	
1000	8.50	200	5.98	0.591	15.4	3.11	12.85	348	0.3	
1005	8.52	200	5.98	0.593	9.6	1.53	12.87	351	0.3	
Sampling										

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112107776-13
WELL ID.: MRC-MW37R-032917
DATE: 3/29/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0735	5.89	—	—	—	—	—	—	—	—	
0740	5.96	200	5.24	0.132	187	4.62	14.03	391	0.1	
0745	6.03	200	5.21	0.131	102	4.13	14.03	391	0.1	
0750	6.07	200	5.18	0.128	73.1	3.55	14.03	392	0.1	
0755	6.10	200	5.17	0.127	66.3	3.27	13.59	392	0.1	
0800	6.12	200	5.16	0.126	61.7	3.10	13.48	392	0.1	
0805	6.15	200	5.11	0.125	36.9	3.07	13.04	392	0.1	
0810	6.17	200	5.05	0.125	23.3	3.01	14.45	392	0.1	
0815	6.17	200	5.07	0.123	9.6	2.57	14.26	392	0.1	
0820	6.17	200	5.10	0.122	2.5	2.36	14.22	391	0.1	
Sampling										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112IC07776-17
WELL ID.: MRC-MW113A-032917
DATE: 3/29/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1220	2.51	—	—	—	—	—	—	—	—	
1225	3.12	200	3.84	0.195	1.3	4.44	14.55	422	0.1	
1230	3.96	200	3.76	1.281	1.2	0.91	13.98	421	0.1	
1235	4.18	200	3.71	0.355	1.2	0.64	13.69	420	0.2	
1240	4.81	200	3.70	0.362	1.2	0.08	13.17	418	0.2	
1245	5.24	200	3.70	0.369	1.2	0.00	13.66	417	0.2	
1250	5.59	200	3.69	0.375	1.1	0.00	13.71	416	0.2	
1255	6.13	200	3.68	0.383	1.1	0.00	13.75	415	0.2	
Sampling										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 111C.7776
WELL ID.: MRC-MW114A-032917
DATE: 3-29-17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1115	2.99	—	—	—	—	—	—	—	—	
1120	3.13	250	4.78	0.077	41.5	1.62	13.37	411	0.0	
1125	3.71			0.063		0.69	13.24	409	0.0	
1130	3.79	200	4.64	0.058	4.8	0.33	13.19	407	0.0	
1135	3.83	200	4.63	0.057	3.9	0.00	13.18	406	0.0	
1140	3.87	200	4.62	0.056	3.7	0.00	13.18	405	0.0	
1145	3.94	200	4.60	0.055	1.8	0.00	13.17	403	0.0	
1150	3.96	200	4.59	0.054	1.2	0.00	13.17	403	0.0	
Stopping										

SIGNATURE(S):

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112IC07776-13

WELL ID.: MRC-SEMW-8S-032717
DATE: 3/27/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1220	4.58	—	—	—	—	—	—	—	—	
1225	5.32	300	4.25	1.46	42.8	3.39	12.69	340	0.7	
1230	5.33	300	4.26	1.36	38.9	1.87	12.69	331	0.4	
1235	5.34	300	4.27	1.27	41.8	1.27	12.68	330	0.4	
1240	5.37	300	4.25	1.21	45.3	1.24	12.67	327	0.4	
1245	5.39	300	4.21	1.17	41.6	0.96	12.64	322	0.4	
1250	5.43	300	4.31	1.12	36.7	0.91	12.69	321	0.4	
1255	5.41	300	4.32	1.09	21.2	0.87	12.71	315	0.4	
1300	5.51	300	4.32	0.960	11.6	0.85	12.69	317	0.4	
1305	5.55	300	4.35	0.897	9.5	0.83	12.69	316	0.4	
1310	5.59	300	4.37	0.873	7.2	0.81	12.65	315	0.4	
1315	5.65	300	4.39	0.850	8.1	0.76	12.69	314	0.4	
Sample										

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112I07776-13
WELL ID.: MRC-SEMW-7I-032717
DATE: 3/27/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1115	5.51	—	—	—	—	—	—	—	—	
1120	5.78	300	4.96	0.128	106	5.05	13.89	262	0.1	
1125	5.79	300	4.85	0.133	57.1	3.76	14.07	264	0.1	
1130	5.80	300	4.70	0.136	39.8	2.24	14.27	267	0.1	
1135	5.80	300	4.68	0.134	26.1	2.05	14.32	270	0.1	
1140	5.82	300	4.67	0.136	17.6	1.84	14.43	274	0.1	
1145	5.83	300	4.66	0.135	9.1	2.73	14.46	278	0.1	
1150	5.85	300	4.66	0.135	5.1	3.30	14.48	282	0.1	
1155	5.86	300	4.66	0.135	4.2	3.34	14.49	285	0.1	
1200	5.87	300	4.66	0.135	3.1	3.39	14.51	287	0.1	
Sample										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112r07776-13
WELL ID.: MRC-MW37C-032717
DATE: 3/27/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0950	5.74	~~30~~	—	—	—	—	—	—	—	
0955	8.37	300	6.82	0.155	407	2.66	14.53	47	0.1	
1000	9.03	200	6.80	0.154	195	1.86	14.26	12	0.1	
1005	10.01	200	6.88	0.142	123	1.72	14.21	8	0.1	
1010	10.63	200	6.74	0.138	98.4	1.09	14.17	-9	0.1	
1015	11.29	200	6.71	0.131	76.2	0.88	14.18	-15	0.1	
1020	11.78	200	6.69	0.127	69.6	0.62	14.05	-26	0.1	
1025	12.09	200	6.52	0.101	43.8	0.54	14.21	-13	0.1	
1030	13.68	200	6.41	0.086	32.5	0.53	14.30	16	0.0	
1035	14.27	200	6.33	0.075	24.6	0.51	14.36	25	0.0	
1040	15.13	200	6.27	0.067	17.7	0.49	14.47	49	0.0	
1045	15.82	200	6.24	0.063	9.68	0.47	14.51	53	0.0	
1050	16.12	200	6.22	0.061	7.41	0.46	14.55	69	0.0	
Sample										

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRL
PROJECT NUMBER: 111-107776-13
WELL ID.: MRC-BEMW-8I-032717
DATE: 3/27/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1350	4.52	—	—	—	—	—	—	—	—	
1355	5.08	300	6.88	0.388	10.1	1.54	14.15	57	0.2	
1400	5.44	300	6.91	0.379	6.43	1.37	14.17	25	0.2	
1405	5.48	200	6.95	0.365	6.12	0.58	14.18	-12	0.2	
1410	5.93	200	7.00	0.360	5.76	0.81	14.19	-88	0.1	
1415	6.04	200	7.01	0.368	3.66	0.37	14.19	-93	0.2	
1420	6.13	200	7.04	0.356	2.74	0.25	14.20	-98	0.2	
1425	6.29	200	7.05	0.356	1.35	0.21	14.21	-101	0.2	
Sampling										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112407776-13

WELL ID.: MRC-MW101A-032817
DATE: 5/28/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0755	14.92	—	—	—	—	—	—	—	—	
0800	15.47	200	5.72	0.380	12.1	3.74	16.72	295	0.2	
0805	15.63	150	5.69	0.380	9.8	2.23	14.04	290	0.2	
0810	15.89	150	5.65	0.380	13	1.52	13.75	250	0.2	
0815	16.17	150	5.63	0.375	2.3	0.92	13.62	196	0.2	
0820	16.69	150	5.60	0.372	1.8	0.47	13.85	183	0.2	
0825	DRY									
0930	Sampling									

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 11KJC07776-13
WELL ID.: MRC-MW101B-032817
DATE: 3/28/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0830	14.49	—	—	—	—	—	—	—	—	
0835	15.83	300	5.74	0.205	436	1.34	14.64	133	0.1	
0840	16.51	150	5.62	0.179	152	0.86	14.62	146	0.1	
0845	17.39	150	5.41	0.168	108	0.52	14.60	148	0.1	
0850	18.18	150	5.36	0.163	57.2	0.36	14.63	152	0.1	
0855	19.09	150	5.32	0156	47.7	0.22	14.66	161	0.1	
0900	19.52	150	5.35	0.156	32.1	0.16	14.62	162	0.1	
0905	20.32	150	5.38	0.156	17.4	0.11	14.56	163	0.1	
0910	20.76	150	5.32	0.155	8.3	0.4	14.56	165	0.11	
0915	21.32	150	5.31	0.155	4.1	0.11	14.56	168	0.1	
Sampling										

SIGNATURE(S): _____

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112JC07776-13
WELL ID.: MRC-MW102A-032817
DATE: 3/28/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1015	10.31	—	—	—	—	—	—	—	—	
1020	10.74	250	6.39	0.875	17.5	2.18	14.57	57	0.4	
1025	10.96	200	6.42	0.879	15.2	1.61	14.62	-8	0.4	
1030	11.04	200	6.44	0.882	12.8	1.13	14.66	-28	0.4	
1035	11.37	200	6.45	0.875	7.5	0.64	14.73	-48	0.4	
1040	11.71	200	6.46	0.871	1.3	0.17	14.77	-62	0.4	
1045	11.96	200	6.47	0.870	1.8	0.16	14.82	-65	0.4	
1050	12.15	200	6.47	0.870	2.1	0.14	14.90	-70	0.4	
Sample										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112tc07776-13

WELL ID.: MRC-MW102B-032817
DATE: 3/28/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1105	11.53	—	—	—	—	—	—	—	—	
1110	12.52	250	5.11	0.146	30	2.01	15.73	52	0.1	
1115	13.26	200	4.96	0.158	52.6	1.03	15.85	76	0.1	
1120	13.70	200	4.83	0.130	39.8	0.64	15.93	80	0.1	
1125	14.38	200	4.75	0.123	14.3	0.17	15.98	97	0.1	
1130	15.14	200	4.69	0.105	7.6	0.16	16.05	106	0.0	
1135	16.71	200	4.65	0.101	4.3	0.72	16.13	127	0.0	
1140	17.62	200	4.60	0.098	1.7	0.33	16.27	142	0.0	
Sampling										

SIGNATURE(S): _____

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112IC07776-15

WELL ID.: MRL-MW[illegible]B-032817
DATE: 1/28/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1320	9.94	—	—	—	—	—	—	—	—	
1325	13.34	200	5.21	0.157	37.7	1.50	15.70	289	0.1	
1330	10.91	200	5.20	0.165	21.6	0.76	15.82	283	0.1	
1335	10.57	200	5.20	0.170	12.2	0.23	15.89	274	0.1	
1340	10.55	200	5.19	0.171	4.2	0.33	15.88	268	0.1	
1345	10.58	200	5.19	0.173	1.6	0.39	15.88	265	0.1	
1350	10.59	200	5.19	0.173	1.5	0.11	15.90	263	0.1	
1355	10.60	200	5.19	0.173	1.3	0.00	15.91	259	0.1	
1400	10.61	200	5.19	0.173	1.1	0.00	15.92	258	0.1	
Sampling										

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

738

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112S007776-17
WELL ID.: MRC-MW738-052317
DATE: 3/23/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1330	7.01	—	—	—	—	—	—	—	—	
1335	7.59	250	4.79	0.099	62.4	1.47	14.39	376	0.0	
1340	8.12	250	4.74	0.096	47.8	1.36	14.52	372	0.0	
1345	8.83	250	4.71	0.091	32.1	1.26	14.66	370	0.0	
1350	8.64	200	4.68	0.089	9.7	0.94	14.86	368	0.0	
1355	7.80	200	4.65	0.087	5.7	0.84	14.90	364	0.0	
1400	7.80	200	4.65	0.074	4.3	0.76	14.95	362	0.0	
1405	7.80	200	4.65	0.085	3.6	0.70	15.00	359	0.0	
1410	7.80	200	4.65	0.084	3.4	0.64	15.08	357	0.0	
1415	7.80	200	4.64	0.083	3.1	0.61	15.11	355	0.0	
1420	7.80	200	4.64	0.083	2.4	0.58	15.17	354	0.0	
Sampling										

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112IC07776-13
WELL ID.: MRC-MW73A-032317
DATE: 3/23/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1100	7.01	—	—	—	—	—	—	—	—	
1105	7.44	300	6.67	0.358	81.1	7.61	12.60	330	0.2	
1110	8.10	300	6.67	0.352	36.6	6.72	12.51	334	0.2	
1115	8.54	250	6.67	0.347	24.3	5.00	12.41	339	0.2	
1120	8.72	250	6.67	0.349	47.5	5.62	12.32	341	0.2	
1125	8.80	250	6.67	0.352	81.0	5.03	12.28	342	0.2	
1130	8.95	200	6.66	0.348	11.32	4.79	12.15	343	0.2	
1135	8.98	200	6.66	0343	15.21	4.73	12.08	344	0.2	
1140	8.99	200	6.64	0.344	16.51	4.71	12.23	343	0.2	
1145	~~9.00~~ 9.04	200	6.62	0.345	17.7	4.70	12.45	343	0.2	
1150	9.23	200	6.58	0.342	19.4	5.13	12.62	342	0.2	
1155	9.61	200	6.51	0.340	22.3	7.02	12.70	341	0.2	
1200	9.78	200	6.49	0.338	23.2	3.56	12.71	342	0.1	
1205	9.89	200	6.48	0.335	24.7	3.84	12.72	343	0.2	
Sampling										

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112107776-13

WELL ID.: MRC-MW104A-032317
DATE: 3/23/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0845	5.79	—	—	—	—	—	—	—	—	
0850	6.33	300	5.96	0.160	259	8.26	12.52	363	0.3	
0855	6.38	200	5.92	0.712	103	7.14	11.90	363	0.4	
0900	7.19	200	5.88	0.749	73.8	5.82	11.33	363	0.4	
0905	7.35	200	5.87	0.746	61.4	5.80	11.28	362	0.4	
0910	7.63	200	5.87	0.744	45.8	5.78	11.22	362	0.4	
0915	8.10	200	5.86	0.738	26.0	5.63	11.20	361	0.4	
0920	8.61	200	5.86	0.730	20.1	5.42	11.15	361	0.4	
0925	9.01	200	5.86	0.710	14.2	5.62	11.12	360	0.4	
0930	9.38	200	5.86	0.693	9.63	5.86	11.10	359	0.4	
Sample										

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112Ic07776-13
WELL ID.: MRC-MW104R-032317
DATE: 3/23/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1000	6.26	—	—	—	—	—	—	—	—	
1005	6.65	200	5.15	1.32	401	4.72	12.28	373	0.7	
1010	6.71	200	5.09	1.42	86.4	1.36	12.87	369	0.8	
1015	6.77	200	5.16	1.67	32.4	0.89	13.27	366	0.8	
1020	6.79	200	5.05	1.69	19.0	0.74	13.48	364	0.9	
1025	6.80	200	5.05	1.72	13.9	0.68	13.60	363	0.9	
1030	6.81	200	5.04	1.73	9.23	0.40	13.81	361	0.9	
1035	6.82	200	5.04	1.75	7.11	0.31	13.96	359	0.9	
Sampling										

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07726
WELL ID.: MRC-MW110A-031617
DATE: 3/16/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1255	3.48	—	—	—	—	—	—	—	—	Initial, no odor
1256	4.20	300	5.37	2.13	190	4.45	15.23	311	1.1	Cloudy Water
1301	5.40	~~300~~ 200	5.31	2.16	43.6	1.45	15.13	290	1.1	↓
1306	6.40	200	5.32	2.14	5.8	0.48	15.00	269	1.1	Clear Water
1316	6.45	100	5.31	2.18	0.0	0.00	14.85	241	1.1	↓
1326	6.50	100	5.31	2.16	0.0	0.00	15.13	224	1.1	
1331	6.52	100	5.31	2.16	0.0	0.00	14.97	214	1.1	
1336	6.53	100	5.30	2.14	0.0	0.00	15.14	214	1.1	
1341	6.55	100	5.29	2.12	0.0	0.00	15.25	211	1.1	
	←	Well parameters				Stabilize		→		
				Sampling	Begins					

SIGNATURE(S): WMR

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW110B-031617
DATE: 3/16/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1355	2.65	—	—	—	—	—	—	—	—	Initial, MW odor
1400	3.15	300	6.98	2.67	181	2.95	14.43	177	1.4	Cloudy water
1405	~~2.90~~ 3.15	300	7.22	2.50	100	1.09	14.25	126	1.3	↓
1410	3.15	300	7.27	2.40	41.4	0.41	14.29	71	1.2	↓
1420	3.15	300	7.09	2.16	7.4	0.00	14.51	31	1.1	Clean water
1430	3.15	300	6.85	1.87	0.0	0.00	14.77	35	0.9	↓
1435	3.15	300	6.78	1.79	0.0	0.00	14.74	38	0.9	↓
1440	3.15	300	6.71	1.77	0.0	0.00	14.80	42	0.9	↓
1445	3.15	300	6.69	1.75	0.0	0.00	14.84	44	0.9	↓
	←		Well parameters stabilized						→	
	←			Sampling Begins					→	

SIGNATURE(S): WNR

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW34B-031517
DATE: 3/15/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0744	4.42	—	—	—	—	—	—	—	—	Initial procedure
0745	4.60	300	4.45	0.524	32.8	5.48	12.21	314	0.2	Slightly cloudy
0750	4.50	200	4.41	0.504	15.8	2.23	11.40	318	0.2	↓
0755	4.50	200	4.39	0.500	0.3	1.49	10.79	321	0.2	Clear water
0805	4.50	200	4.34	0.496	0.1	1.07	10.43	324	0.2	
0815	4.50	200	4.30	0.499	0.0	0.90	10.74	326	0.2	
0820	4.50	200	4.30	0.502	0.0	0.85	10.99	325	0.2	
0825	4.50	200	4.31	0.505	0.0	0.85	11.11	325	0.2	
0830	4.50	200	4.33	0.507	0.0	0.84	10.71	324	0.2	
			Field parameters				stabilize			
				Sampling Begins						

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW34C-031517
DATE: 3/15/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0913	4.22	—	—	—	—	—	—	—	—	Initial, No action
0914	4.45	300	5.74	0.063	32.5	7.89	11.04	288	0.0	Slightly Cloudy
0919	4.30	200	5.83	0.065	1.8	4.19	9.43	289	0.0	Clear Water
0924	4.30	200	5.82	0.057	0.0	2.99	8.93	291	0.0	
0934	4.30	200	5.77	0.051	0.0	2.22	9.33	294	0.0	
0944	4.30	200	5.75	0.053	0.0	1.90	9.10	296	0.0	
0949	4.30	200	5.74	0.052	0.0	1.89	9.32	297	0.0	
0954	4.30	200	5.74	0.052	0.0	1.83	9.27	297	0.0	
0959	4.30	200	5.75	0.052	0.0	1.74	9.30	297	0.0	
			Well parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Centra
PROJECT NUMBER: 112S007776
WELL ID.: MRC-MW 62A-031517
DATE: 3/15/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1042	1.55	—	—	—	—	—	—	—	—	Initial, no odor
1043	2.11	300	6.50	0.217	25.4	14.84	9.18	299	0.1	Slightly cloudy
1048	2.56	100	6.50	0.200	3.9	10.84	9.32	301	0.1	Clean water
1053	2.56	100	6.52	0.197	3.2	8.89	9.31	301	0.1	
1103	2.56	100	6.40	0.206	1.5	7.56	9.25	306	0.1	
1113	2.56	100	6.36	0.219	0.0	6.49	9.76	306	0.1	
1118	2.56	100	6.34	0.226	0.0	5.76	9.88	305	0.1	
1123	2.56	100	6.31	0.229	0.0	5.32	10.05	305	0.1	
1128	2.56	100	6.29	0.230	0.0	5.20	10.07	304	0.1	
				Well Parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112S07776
WELL ID.: MRC-MW62C-031517
DATE: 3/15/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1351	3.75	—	—	—	—	—	—	—	—	Initial, no color
1352	4.00	300	6.66	0.181	208	3.50	12.90	90	0.1	Cloudy water
1357	3.90	200	6.64	0.179	149	1.69	12.88	5	0.1	↓
1402	3.90	200	6.62	0.179	50.2	0.93	12.76	-30	0.1	↓
1412	3.90	200	6.59	0.179	41.0	0.51	12.36	-47	0.1	↓
1422	3.90	100	6.57	0.181	13.3	0.40	12.21	-57	0.1	↓
1427	3.90	100	6.57	0.180	10.0	0.36	12.24	-60	0.1	Clean water
1432	3.90	100	6.56	0.180	9.90	0.36	12.22	-62	0.1	↓
1437	3.90	100	6.55	0.180	9.98	0.35	12.15	-63	0.1	↓
				Well Parameters Stabilized						
				Sampling Begins						

SIGNATURE(S): Walt Ru

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112I-07776
WELL ID.: MRC-MW91A-031317
DATE: 3/13/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0900	11.60	—	—	—	—	—	—	—	—	Initial, ND odor
0901	11.90	200	6.72	0.770	18.0	3.35	16.08	-30	0.4	Slightly cloudy
0906	11.90	100	6.74	0.784	18.1	1.52	14.33	-79	0.4	
0911	11.95	100	6.76	0.797	10.1	0.76	13.98	-98	0.4	
0921	12.02	100	6.74	0.799	9.4	0.58	13.76	-107	0.4	
0931	12.05	100	6.66	0.798	5.1	0.59	13.66	-109	0.4	
0936	12.07	100	6.66	0.794	2.9	0.55	13.54	-111	0.4	
0941	12.09	100	6.70	0.798	2.1	0.56	13.32	-113	0.4	
0946	12.10	100	6.73	0.796	2.0	0.57	13.64	-116	0.4	
			WQ Parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112IC07276
WELL ID.: MRC-MW60A-031317
DATE: 3/13/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1026	14.90	—	—	—	—	—	—	—	—	Initial, pre purge
1029	15.10	300	5.61	0.233	>999	13.68	12.83	-11	0.1	Cloudy water
1034	15.30	150	5.54	0.215	>999	1.57	13.69	28	0.1	↓
1039	15.50	100	5.51	0.212	238	0.66	13.12	43	0.1	↓
1049	15.50	100	5.54	0.215	72.5	0.43	12.94	56	0.1	↓
1059	15.55	100	5.38	0.214	79.9	0.43	12.89	64	0.1	↓
1104	15.55	100	5.38	0.214	2.78	0.42	12.92	65	0.1	Clear water
1109	15.55	100	5.39	0.214	2.60	0.41	12.94	66	0.1	↓
1114	15.55	100	5.40	0.214	2.49	0.40	12.95	67	0.1	↓
				Well parameters stabilize						
				Sampling Begins						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW60B-031317
DATE: 3/13/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1255	14.26	—	—	—	—	—	—	—	—	Initial, no color
1256	14.80	300	5.92	0.141	0.0	4.18	16.25	128	0.1	Clear Water
1301	14.76	200	5.81	0.140	700	2.22	15.92	104	0.1	Cloudy Water
1306	14.76	200	5.81	0.140	271	1.42	15.82	91	0.1	↓
1316	14.76	200	5.80	0.140	116	0.54	16.26	70	0.1	↓
1326	14.76	200	5.78	0.140	83.6	0.20	16.27	60	0.1	↓
1331	14.76	200	5.77	0.139	16.7	0.10	16.34	57	0.1	Slightly Cloudy
1336	14.76	200	5.78	0.139	17.4	0.00	16.40	54	0.1	↓
1341	14.76	200	5.78	0.139	17.4	0.00	16.41	53	0.1	↓
	←		Well Parameters Stabilize							→
	←			Sampling	Begins					→

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-78B-031317
DATE: 3/13/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1425	8.95	—	—	—	—	—	—	—	—	Initial, no odor
1426	9.70	350	6.85	4.89	298	5.45	15.94	-29	2.6	Cloudy water
1431	10.30	200	7.06	4.48	119	1.91	15.86	-94	2.3	↓
1436	10.35	100	7.07	4.03	49.3	0.87	15.67	-122	2.2	↓
1446	10.45	100	7.10	3.75	23.6	0.38	15.08	-136	2.0	Slightly cloudy
1456	10.65	100	7.07	3.50	11.2	0.06	14.64	-142	1.8	↓
1501	10.68	100	7.07	3.22	7.4	0.04	14.69	-146	1.7	Clean water
1506	10.71	100	7.07	3.20	7.0	0.03	14.57	-146	1.7	↓
1511	10.74	100	7.07	3.18	7.1	0.04	14.57	-148	1.6	↓

Well parameter stabilize

Sampling Begins

SIGNATURE(S): Walt [illegible]

PAGE 2 OF 2

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW32A-031017
DATE: 3/10/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0838	4.70	—	—	—	—	—	—	—	—	Initial pre calib
0839	4.93	300	4.47	0.393	163	10.66	14.00	329	0.2	Cloudy water
0844	5.25	300	4.60	0.370	81.6	5.96	13.16	338	0.2	
0849	5.37	200	4.58	0.369	63.8	5.11	12.49	346	0.2	
0854	5.50	100	4.49	0.369	62.0	4.93	11.81	354	0.2	
0909	5.99	100	4.43	0.368	53.0	4.90	11.41	368	0.2	
0914	6.00	100	4.45	0.369	50.1	4.73	11.20	369	0.2	
0919	6.01	100	4.45	0.367	50.5	4.65	10.95	372	0.2	
0924	6.01	100	4.45	0.367	50.8	4.64	10.91	372	0.2	
			WQM parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Matt Pz

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112EC07776
WELL ID.: MRC-MW34A-031017
DATE: 3/10/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0944	5.22	—	—	—	—	—	—	—	—	Initial, no odor
0945	5.40	300	5.71	0.123	61.3	10.39	11.43	348	0.1	Slightly Cloudy
0950	5.37	200	5.68	0.116	29.0	8.66	10.97	360	0.1	
0955	5.37	200	5.56	0.114	20.8	8.05	10.87	371	0.1	
1005	5.37	200	5.50	0.113	13.5	7.84	10.91	381	0.1	
1015	5.37	200	5.45	0.113	10.2	7.94	10.91	387	0.1	Clean water
1020	5.37	200	5.46	0.113	9.5	7.67	11.05	388	0.1	
1025	5.37	200	5.38	0.112	9.6	7.65	11.01	393	0.1	
1030	5.37	200	5.39	0.112	9.6	7.65	10.91	394	0.1	
			Well parameters stabilized							
				Sampling Begins						

SIGNATURE(S): Walt B

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW33A-031017
DATE: 3/10/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1122	3.30	—	—	—	—	—	—	—	—	Initial, murky
1123	3.87	300	4.48	0.114	289	7.88	11.20	407	0.1	Cloudy water
1128	3.90	300	4.39	0.113	67.4	2.65	11.63	404	0.1	↓
1133	4.05	300	4.40	0.113	42.9	1.26	11.77	397	0.1	↓
1143	4.10	200	4.34	0.113	43.1	0.75	11.58	394	0.1	↓
1153	4.15	200	4.29	0.113	39.2	0.52	11.62	393	0.1	↓
1158	4.20	200	4.27	0.113	34.9	0.49	11.70	392	0.1	Clear water
1203	4.20	200	4.28	0.112	14.9	0.48	11.65	390	0.1	↓
1208	4.20	200	4.28	0.113	15.0	0.47	11.60	389	0.1	↓
	←	—	Well	parameters		stabilize		→		
	→	—	—	Sampling	Begins			→		

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112FC07776
WELL ID.: MRC-MW88B-031017
DATE: 3/10/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1428	4.90	—	—	—	—	—	—	—	—	Initial, no odor
1420	5.36	300	5.81	0.083	13.7	9.07	14.19	354	0.0	clear water
1425	5.36	200	5.83	0.090	0.3	5.37	14.74	357	0.0	
1430	5.36	200	5.85	0.091	0.0	4.58	14.96	356	0.0	
1440	5.36	200	5.65	0.091	0.0	3.11	14.98	364	0.0	
1450	5.36	200	5.38	0.070	0.0	2.97	14.83	370	0.0	
1455	5.36	200	5.29	0.067	0.0	1.91	14.89	370	0.0	
1500	5.36	200	5.25	0.066	0.0	1.78	14.96	372	0.0	
1505	5.36	200	5.20	0.065	0.0	1.73	14.90	372	0.0	
					Well Parameters Stabilize					
					Sampling Begins					

SIGNATURE(S): Walt Pac

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW103A-030917
DATE: 3/9/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0842	4.75	—	—	—	—	—	—	—	—	Initial, no odor
0843	5.31	300	4.69	0.120	291	7.18	17.63	282	0.1	Cloudy water
0848	6.13	200	4.52	0.091	193	4.69	17.20	298	0.0	↓
0853	6.31	100	4.54	0.082	141	4.31	17.01	300	0.0	↓
0903	6.71	100	4.49	0.076	31.4	3.84	16.59	307	0.0	Slightly cloudy
0913	7.10	100	4.51	0.071	22.1	3.79	16.45	308	0.0	↓
0923	7.47	100	4.53	0.070	1.8	3.76	15.99	309	0.0	Clear water
0933	7.85	100	4.60	0.068	0.3	3.83	15.92	308	0.0	↓
0943	8.25	100	4.52	0.068	0.0	3.98	16.09	313	0.0	↓
0953	8.67	100	4.48	0.069	0.0	4.24	15.77	317	0.0	↓
1003	9.07	100	4.48	0.069	0.0	4.26	15.81	318	0.0	↓
1013	9.70	100	4.48	0.069	0.0	4.26	15.81	318	0.0	↓

Well parameters did not stabilize after the 90 min Max purge per workplan Sampling Begin

SIGNATURE(S): Walt Re

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW103B-030817
DATE: 3/8/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1057	6.05	—	—	—	—	—	—	—	—	Initial, no color
1058	6.85	300	5.40	0.040	73.8	3.53	16.84	271	0.0	Slightly Cloudy
1103	7.02	200	5.38	0.041	52.0	1.77	16.54	257	0.0	↓
1108	7.02	100	5.31	0.042	38.3	1.27	16.59	247	0.0	↓
1113	7.75	100	5.20	0.040	22.1	0.16	16.75	233	0.0	↓
1128	7.80	100	5.15	0.041	9.9	0.24	16.80	224	0.0	Clean Water
1134	7.83	100	5.05	0.040	9.0	0.00	16.86	223	0.0	↓
1143	7.85	100	5.02	0.040	9.8	0.00	16.89	222	0.0	↓
1148	7.87	100	5.02	0.040	9.8	0.00	16.89	221	0.1	↓
			Well parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW58A-030917
DATE: 3/9/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1329	4.70	—	—	—	—	—	—	—	—	Initial, no odor
1330	5.22	300	6.46	0.799	549	2.51	19.67	188	0.4	cloudy water
1335	6.15	300	6.38	0.823	421	1.93	19.54	192	0.4	
1340	6.60	100	6.39	0.821	329	1.46	19.18	191	0.4	
1350	7.00	100	6.39	0.840	162	0.90	18.82	190	0.4	
1400	7.55	100	6.40	0.842	99.1	0.88	18.99	166	0.4	
1405	8.00	100	6.40	0.841	86.1	0.59	19.11	152	0.4	
1410	8.35	100	6.39	0.836	62.4	0.47	19.30	129	0.4	
1415	8.40	100	6.36	0.835	52.3	0.41	19.28	117	0.4	
1420	8.44	100	6.37	0.833	51.7	0.40	19.37	114	0.4	
1425	8.46	100	6.34	0.832	52.0	0.39	19.37	107	0.4	
			Well Parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW94B-030917
DATE: 3/9/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1440	5.41	—	—	—	—	—	—	—	—	Initial, no odor
1441	5.85	300	6.60	0.110	34.0	6.12	17.62	126	0.1	Slightly Cloudy
1446	5.85	300	6.55	0.104	15.0	3.80	17.29	135	0.1	↓
1451	5.85	300	6.23	0.092	0.0	2.80	17.24	157	0.0	Clear Water
1501	5.85	300	5.81	0.070	0.0	2.53	16.92	177	0.0	↓
1511	5.85	300	5.64	0.062	0.0	2.35	16.91	190	0.0	
1516	5.85	300	5.75	0.061	0.0	2.24	17.12	186	0.0	
1521	5.85	300	5.74	0.062	0.0	2.18	17.24	188	0.0	
1526	5.85	300	5.73	0.060	0.0	2.14	17.25	191	0.0	
	←		Well parameters				Stabilize		→	
	←			Sampling Begins					→	

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112FC07776
WELL ID.: MRC-MW44A-030817
DATE: 3/8/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0858	1.85	—	—	—	—	—	—	—	—	Initial, no odor
0859	2.37	300	6.84	0.903	168	3.26	12.54	100	0.4	Cloudy Water
0904	2.53	300	6.93	0.764	75.0	1.46	12.12	49	0.4	↓
0909	2.50	250	6.90	0.760	51.3	0.77	12.02	26	0.4	↓
0914	2.50	250	6.87	0.784	21.7	0.19	11.97	-25	0.4	Slightly Cloudy
0919	2.50	250	6.84	0.820	12.6	0.17	12.01	-48	0.4	↓
0924	2.50	250	6.84	0.865	9.2	0.20	12.02	-55	0.4	Clean Water
0939	2.50	250	6.83	0.867	9.5	0.19	12.06	-60	0.4	↓
0944	2.50	250	6.85	0.869	9.5	0.19	12.09	-65	0.4	↓
	←		Well parameters stabilized							→
	←			Sampling Begins						→

SIGNATURE(S): Wade R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW43A-030817
DATE: 3/8/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1038	1.60	—	—	—	—	—	—	—	—	Initial, NO odor
1039	2.05	300	6.58	0.255	291	6.02	13.87	11	0.1	Cloudy water
1044	2.20	250	6.00	0.164	246	3.04	14.06	64	0.1	↓
1049	2.37	250	5.76	0.166	103	2.18	14.12	87	0.1	↓
1054	2.57	200	5.56	0.153	106	1.50	14.38	115	0.1	↓
1109	2.60	100	5.54	0.152	58.2	1.36	14.45	119	0.1	Slightly cloudy
1114	2.62	100	5.54	0.150	35.5	1.29	14.54	121	0.1	↓
1119	2.64	100	5.54	0.149	34.8	1.20	14.56	123	0.1	↓
1124	2.66	100	5.54	0.149	35.2	1.18	14.67	124	0.1	↓
	←	—	Well	parameters		Stabilize	—	→		
	←	—	—	Sampling	Begins	—	—	→		

SIGNATURE(S): Matt Lee

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112FC07776
WELL ID.: MRC-MW76A-030817
DATE: 3/8/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1314	11.71	—	—	—	—	—	—	—	—	Initial, no odor
1315	11.91	300	5.40	0.847	11.7	3.01	18.18	150	0.4	Clear Water
1320	12.00	100	5.37	0.868	4.3	1.09	17.61	138	0.4	
1325	12.05	100	5.38	0.876	4.1	0.47	17.63	129	0.4	
1335	12.10	100	5.35	0.880	3.7	0.18	17.60	123	0.4	
1345	12.12	100	5.33	0.879	2.7	0.00	17.59	120	0.4	
1350	12.13	100	5.31	0.879	1.4	0.00	17.63	120	0.4	
1355	12.15	100	5.30	0.878	1.7	0.00	17.61	119	0.4	
1400	12.16	100	5.29	0.878	1.6	0.00	17.71	119	0.4	
	←		Well Parameters Stabilize						→	
	→		Sampling Begins						→	

SIGNATURE(S): Work Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112B07776
WELL ID.: MRC-MW76B-030817
DATE: 3/8/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1418	11.31	—	—	—	—	—	—	—	—	Initial
1419	11.91	300	6.22	0.314	927	2.65	18.73	40	0.1	Cloudy Water
1424	11.99	300	6.22	0.309	446	0.96	18.68	16	0.1	
1429	11.90	200	6.10	0.292	263	0.28	18.68	18	0.1	
1434	11.90	200	6.02	0.270	202	0.10	18.83	28	0.1	
1449	11.90	200	5.84	0.253	149	0.06	18.84	47	0.1	
1454	11.90	200	5.75	0.245	104	0.09	18.83	58	0.1	
1459	11.90	200	5.70	0.240	98.1	0.09	18.84	63	0.1	
1504	11.90	200	5.67	0.237	98.2	0.09	18.82	68	0.1	
1509	11.90	200	5.65	0.235	88.5	0.08	18.83	72	0.1	
	←	WQM parameters			stabilize			→		
	←		Sampling Begins					→		

SIGNATURE(S): Walt B

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC
PROJECT NUMBER: 112EC07776-13
WELL ID.: MRC-MW74C-032217
DATE: 3/22/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1240	8.21	—	—	—	—	—	—	—	—	
1245	9.74	250	5.84	0.042	252	1.46	14.41	239	0.0	
1250	10.86	250	5.79	0.039	228	1.37	14.39	237	0.0	
1255	11.96	250	5.76	0.037	203	1.23	14.37	234	0.0	
1300	12.97	200	5.75	0.035	162	1.05	14.39	236	0.0	
Pause Purging for Drum Disposal									0.0	
1355	Begin Purge								0.0	
1355	13.87	200	5.71	0.032	135	2.43	14.34	254	0.0	
1400	14.81	200	5.71	0.031	101	2.21	14.51	255	0.0	
1405	15.57	200	5.71	0.031	492.5	2.06	14.69	256	0.0	
1410	17.32	200	5.71	0.031	86.3	1.52	14.81	256	0.0	
1415	19.17	200	5.71	0.031	69.7	1.13	14.90	256	0.0	
Sample										

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC GW
PROJECT NUMBER: 112R07776-13
WELL ID.: MRC-MW74B-032217
DATE: 3/22/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1120	7.80	—	—	—	—	—	—	—	—	
1125	7.92		6.14	0.182	83.2	3.51	13.98	254	0.1	
1130	8.50	200	6.07	0.177	80.1	3.42	13.95	253	0.1	
1135	8.76	200	6.04	0.171	32.8	2.64	13.95	252	0.1	
1140	9.06	200	6.04	0.168	29.7	2.46	14.01	252	0.1	
1145	9.17	200	6.02	0.165	24.3	2.32	14.07	252	0.1	
1150	9.32	200	6.01	0.164	23.8	3.68	14.15	253	0.1	
1155	9.51	200	6.00	0.164	22.5	4.85	14.29	253	0.1	
1200	9.68	200	6.00	0.164	14.6	3.62	14.28	253	0.1	
1205	9.78	200	6.00	0.164	9.31	2.56	14.26	253	0.1	
1210	9.91	200	6.00	0.164	6.72	2.02	14.25	253	0.1	
Sample										

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MRC Annual GW
PROJECT NUMBER: 112IC07776-13
WELL ID.: MRC-MW74A-032217
DATE: 3/22/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or (ppt)	Comments
0940	7.51	—	—	—	—	—	—	—	—	
0945	7.62	200	6.94	0.457	81.7	8.18	11.76	238	0.2	
0950	7.75	200	6.87	0.412	57.9	6.88	11.80	245	0.2	
0955	7.82	200	6.86	0.412	52.1	6.30	11.84	246	0.2	
1000	7.89	200	7.85	0.411	48.7	6.14	11.89	246	0.2	
1005	7.94	200	7.84	0.410	45.3	5.72	11.93	247	0.2	
1010	8.06	200	6.84	0.410	43.4	5.32	11.98	248	0.2	
1015	8.15	200	6.78	0.410	36.2	6.77	12.01	248	0.2	
1020	8.17	200	6.74	0.410	32.5	7.12	12.03	248	0.2	
1025	8.20	200	6.77	0.410	28.6	7.12	12.04	248	0.2	
1030	8.23	200	6.81	0.410	23.2	5.14	12.06	248	0.2	
1035	8.24	200	6.81	0.410	18.3	5.08	12.05	248	0.2	
1040	8.25	200	6.81	0.410	15	5.05	12.05	248	0.2	
Sampling										

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Complex
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW116A-031717
DATE: 3/17/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0744	5.55	—	—	—	—	—	—	—	—	Initial pre pump
0745	6.26	300	6.76	0.499	11.0	9.60	14.55	281	0.2	Clear Water
0750	7.00	100	7.19	0.490	0.0	5.27	13.14	286	0.2	
0755	7.57	100	7.23	0.484	0.0	4.41	12.83	293	0.2	
0805	7.90	100	7.29	0.491	0.0	3.65	11.57	302	0.2	
0815	8.00	100	7.37	0.475	0.0	3.75	12.35	305	0.2	
0825	8.38	100	7.37	0.471	0.0	3.02	13.34	309	0.2	
0835	8.60	100	7.44	0.480	0.0	2.99	13.33	309	0.2	
0845	9.76	100	7.41	0.471	0.0	3.53	13.34	313	0.2	
0855	10.95	100	7.42	0.468	0.0	3.35	13.82	314	0.2	
0905	11.69	100	7.46	0.464	0.0	3.20	14.60	316	0.2	
0915	12.90	100	7.38	0.461	0.0	3.03	14.31	317	0.2	
		NEW parameters did not stabilize								
		after 90 min MAX purge per work plan								
		Sampling Begin								

SIGNATURE(S): Walt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776
WELL ID.: MRC-MW57A-031717
DATE: 3/17/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0938	7.65	—	—	—	—	—	—	—	—	Initial, no odor
0939	7.97	300	6.86	2.79	15.0	4.52	13.46	177	1.4	slightly cloudy
0944	8.00	100	6.41	2.95	8.2	1.54	12.72	97	1.5	↓
0949	8.11	100	6.32	2.97	13.9	0.52	12.58	75	1.5	↓
0954	8.36	100	6.31	3.00	9.0	0.11	12.77	59	1.6	Clear water
1009	8.57	100	6.30	3.02	4.5	0.01	12.75	57	1.6	↓
1014	8.60	100	6.30	3.03	3.0	0.00	12.17	57	1.6	↓
1019	8.60	100	6.29	3.06	1.4	0.00	12.16	59	1.6	↓
1024	8.62	100	6.29	3.07	0.0	0.00	12.18	61	1.6	↓
				Well parameters Stabilized						
				Sampling Begins						

SIGNATURE(S): Matt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112EC07776

WELL ID.: MRC-MW95B-031717
DATE: 3/12/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1057	4.65	—	—	—	—	—	—	—	—	Initial, pre action
1052	5.30	300	6.52	0.390	10.5	5.85	15.03	68	0.2	clear water
1057	5.43	100	6.24	0.296	0.7	3.58	14.67	105	0.1	
1102	5.47	100	6.21	0.159	0.0	2.80	14.85	124	0.1	
1112	5.41	100	6.07	0.113	0.0	2.29	15.00	154	0.1	
1122	5.41	100	6.01	0.098	0.0	1.96	15.20	178	0.0	
1127	5.41	100	5.99	0.089	0.0	1.94	15.08	187	0.0	
1132	5.41	100	5.95	0.087	0.0	1.80	15.27	192	0.0	
1137	5.41	100	5.92	0.085	0.0	1.76	15.36	197	0.0	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): [signature]

PAGE 2 OF 2

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112TC07776
WELL ID.: MRC-MW115A-031717
DATE: 3/17/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1320	7.07	—	—	—	—	—	—	—	—	Initial, no data
1321	7.80	300	6.60	0.634	2.2	8.55	15.20	242	0.3	Clear water
1326	9.70	300	6.64	0.629	0.0	7.33	15.50	240	0.3	
1331	9.30	200	6.63	0.637	0.0	2.21	15.29	239	0.3	
1341	10.30	200	6.61	0.635	0.0	1.13	15.46	238	0.3	
1351	11.20	100	6.61	0.633	0.0	0.86	15.68	238	0.3	
1401	12.15	100	6.60	0.629	0.0	0.74	16.29	239	0.3	
1411	13.05	100	6.60	0.625	0.0	0.71	16.55	239	0.3	
1421	13.70	100	6.60	0.624	0.0	0.65	16.73	239	0.3	
1431	14.45	100	6.61	0.623	0.0	0.63	16.74	239	0.3	
1441	15.30	100	6.61	0.623	0.0	0.61	16.75	239	0.3	
1451	16.10	100	6.60	0.623	0.0	0.59	16.77	240	0.3	
			Well parameters did not stabilize after 90 min max purge per work plan							Sampling Begins

SIGNATURE(S): Wade K

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112T07776
WELL ID.: MRC-MW53A-031617
DATE: 3/16/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0900	5.20	—	—	—	—	—	—	—	—	Initial, no color
0901	5.35	300	6.48	0.975	0.0	3.76	12.92	308	0.5	
0906	5.41	300	6.64	0.980	0.0	2.64	12.53	303	0.5	
0911	5.50	200	6.80	0.980	55.0	1.39	12.15	291	0.5	Cloudy water
0921	5.75	100	6.82	0.978	15.7	0.47	11.72	287	0.5	
0931	5.90	100	6.88	0.990	41.6	0.20	11.58	285	0.5	
0941	6.10	100	6.98	0.998	45.7	0.38	11.39	280	0.5	
0951	6.25	100	7.08	1.01	39.7	0.44	11.17	276	0.5	
1001	6.35	100	7.20	1.03	34.0	0.24	10.46	273	0.5	
1011	6.44	100	7.26	1.01	30.5	0.33	11.50	269	0.5	
1021	6.51	100	7.28	1.02	27.0	1.10	11.37	265	0.5	
1031	6.60	100	7.25	1.01	28.3	0.63	11.54	266	0.5	
			WQ parameters did not stabilize							
			After 90 min Max purge per work plan							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112EC07776

WELL ID.: MRC-MW53B-031617
DATE: 3/16/17

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1047	4.57	—	—	—	—	—	—	—	—	Initial, no adon
1048	4.80	300	7.11	1.19	35.7	8.83	14.63	267	0.6	Slightly cloudy
1053	4.75	250	7.06	1.18	29.7	7.86	14.45	270	0.6	↓
1058	4.75	250	7.06	1.18	24.8	7.21	14.46	271	0.6	↓
1103	4.75	250	7.01	1.25	22.5	6.54	15.42	273	0.6	↓
1118	4.75	250	6.98	1.25	16.9	6.70	15.53	276	0.6	↓
1123	4.75	250	6.96	1.25	10.0	6.57	15.48	278	0.6	Clean Water
1128	4.75	250	6.93	1.24	9.97	6.43	15.65	279	0.6	↓
1133	4.75	250	6.90	1.24	9.99	6.34	15.68	281	0.6	↓
	←	—	Well Parameters			Stabilized		—	→	
	←	—	—	Sampling	Begins	—	—	—	→	

SIGNATURE(S): WMB

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Middle River Center
PROJECT NUMBER: 112IC07776

WELL ID.: MRC-MW16A-060717
DATE: 6/7/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1453	2.95	—	—	—	—	—	—	—	—	
1454	~~3.40~~ 3.40	300	4.10	0.666	48.3	1.17	17.03	307	0.3	Initial, NO odor
1459	3.50	150	4.00	0.670	11.2	0.00	17.45	304	0.3	Slightly cloudy
1504	3.80	100	3.91	0.670	0.0	0.00	17.77	303	0.3	Clear water
1514	4.40	100	3.80	0.664	0.0	0.00	17.85	304	0.3	
1524	4.45	100	3.77	0.665	0.0	0.00	18.06	304	0.3	
1529	4.50	100	3.77	0.770	0.0	0.00	17.99	303	0.3	
1534	4.52	100	3.77	0.772	0.0	0.00	17.93	302	0.3	
1539	4.55	100	3.76	0.774	0.0	0.00	17.89	302	0.3	

APPENDIX C—DATA-VALIDATION REPORTS WITH CHAIN OF CUSTODY FORMS

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **APRIL12, 2017**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs, 1,4-DIOXANE, PCBs**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC) GROUNDWATER
SDG 240-76517-1

SAMPLES: 3/Aqueous
VOCs

MRC-MW44A-030817 MRC-MW76A-030817 MRC-MW76B-030817

1/Aqueous
1,4-Dioxane/PCBs

MRC-MW44A-030817

1/Trip Blank

TB-030817

Overview

The sample set for LMC-MRC Groundwater, SDG 240-76517-1 consisted of three (3) aqueous environmental samples and one (1) trip blank. Samples MRC-MW76A-030817, MRC-MW76B-030817 and TB-030817 were analyzed for volatile organic carbons (VOCs). Sample MRC-MW44A-030817 was analyzed for select VOCs, 1,4-Dioxane and polychlorinated biphenyls (PCBs). No field duplicate sample pairs were included in this SDG.

The samples were collected by Tetra Tech, Inc. on March 8, 2017 and analyzed by TestAmerica – Canton, TestAmerica-Burlington and TestAmerica-Savannah. All analyses were conducted in accordance with SW-846 Method 8260C and EPA methods 522 and 680 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, laboratory control sample / laboratory control sample duplicate results, matrix spike / matrix spike duplicate recoveries, internal standard areas, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The VOC continuing calibration performed on instrument A3UX17 on 03/14/17 @ 10:59 had percent differences (%Ds) for dichlorodifluoromethane, bromomethane, chloroethane and 2-butanone which exceeded the quality control limits. Samples MRC-MW76A-030817, MRC-MW76B-030817 and TB-030817 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

- Detected results reported below the RL but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Sample MRC-MW43A-030817 was listed on the chain of custody but was not included within this SDG.

The laboratory control standard (LCS) percent recovery for 2-butanone was above the quality control limit. Samples MRC-MW76A-030817, MRC-MW76B-030817 and TB-030817 were affected. No validation actions were warranted as all sample results were nondetects.

The matrix spike (MS) and/or matrix spike duplicate (MSD) percent recoveries for all PCBs except nonachlorobiphenyls for sample MRC-MW44A-030817 were below the quality control limit. No validation action was warranted based on MS/MSD recoveries alone.

The MS/MSD relative percent differences (RPDs) for dichlorobiphenyls, tetrachlorobiphenyls and trichlorobiphenyls for sample MRC-MW44A-030817 were outside the quality control limit. No validation action was warranted based on the MS/MSD RPD recoveries alone.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: One CCV %D was noncompliant for the VOC fraction.

Other Factors Affecting Data Quality: Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Terri L Solomon

Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator

Joseph A. Samchuck

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-MW44A-030817			MRC-MW76A-030817			MRC-MW76B-030817			TB-030817		
SDG: 240-76517-1	LAB_ID	240-76517-2			240-76517-4			240-76517-5			240-76517-1		
FRACTION: OV	SAMP_DATE	3/8/2017			3/8/2017			3/8/2017			3/8/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE					0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE					0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE					0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE					0.25	U		2.2			0.25	U	
1,1-DICHLOROETHENE					0.27	U		1.3			0.27	U	
1,2,3-TRICHLOROBENZENE		0.35	U										
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE					0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE					0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE					0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE					0.3	U		0.3	U		0.3	U	
1,3,5-TRICHLOROBENZENE		0.33	U										
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE					1	UJ	C	1	UJ	C	1	UJ	C
2-HEXANONE					1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE					0.71	U		0.71	U		0.71	U	
ACETONE					1.8	U		1.8	U		1.8	U	
BENZENE					0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE					0.3	U		0.3	U		0.3	U	
BROMOFORM					0.43	U		0.43	U		0.43	U	
BROMOMETHANE					0.42	UJ	C	0.42	UJ	C	0.42	UJ	C
CARBON DISULFIDE					0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE					0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE					0.25	U		0.25	U		0.25	U	
CHLOROETHANE					0.41	UJ	C	0.41	UJ	C	0.41	UJ	C
CHLOROFORM					0.31	U		0.31	U		0.31	U	
CHLOROMETHANE					0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE					0.3	U		1.4			0.3	U	
CIS-1,3-DICHLOROPROPENE					0.26	U		0.26	U		0.26	U	
CYCLOHEXANE					0.9	J	P	0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE					0.5	UJ	C	0.5	UJ	C	0.5	UJ	C

PROJ_NO: 07776	NSAMPLE	MRC-MW44A-030817			MRC-MW76A-030817			MRC-MW76B-030817			TB-030817		
SDG: 240-76517-1	LAB_ID	240-76517-2			240-76517-4			240-76517-5			240-76517-1		
FRACTION: OV	SAMP_DATE	3/8/2017			3/8/2017			3/8/2017			3/8/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE					0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE					0.21	U		0.21	U		0.21	U	
METHYL ACETATE					1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE					0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER					0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE					0.53	U		0.53	U		0.53	U	
STYRENE					0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE					0.3	U		0.3	U		0.3	U	
TOLUENE					0.23	U		0.23	U		0.23	U	
TOTAL XYLENES					0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE					0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE					0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE					0.33	U		13			0.33	U	
TRICHLOROFLUOROMETHANE					0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE					0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW44A-030817		
SDG: 240-76517-1	LAB_ID	240-76517-2		
FRACTION: OS	SAMP_DATE	3/8/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,4-DIOXANE		4.7		

PROJ_NO: 07776	NSAMPLE	MRC-MW44A-030817		
SDG: 240-76517-1	LAB_ID	240-76517-2		
FRACTION: PCB	SAMP_DATE	3/8/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DECACHLOROBIPHENYL		0.069	U	
DICHLOROBIPHENYLS		0.0053	U	
HEPTACHLOROBIPHENYLS		0.03	U	
HEXACHLOROBIPHENYLS		0.015	U	
MONOCHLOROBIPHENYLS		0.0055	U	
NONACHLOROBIPHENYLS		0.048	U	
OCTACHLOROBIPHENYLS		0.037	U	
PENTACHLOROBIPHENYLS		0.014	U	
TETRACHLOROBIPHENYLS		0.013	U	
TRICHLOROBIPHENYLS		0.0064	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76517-1

SDG No.:

Client Sample ID: TB-030817 | Lab Sample ID: 240-76517-1

Matrix: Water | Lab File ID: UXR7250.D

Analysis Method: 8260C | Date Collected: 03/08/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 17:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U *	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76517-1

SDG No.:

Client Sample ID: TB-030817 | Lab Sample ID: 240-76517-1

Matrix: Water | Lab File ID: UXR7250.D

Analysis Method: 8260C | Date Collected: 03/08/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 17:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	84		80-120
460-00-4	4-Bromofluorobenzene (Surr)	83		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76517-1

SDG No.:

Client Sample ID: MRC-MW76A-030817 | Lab Sample ID: 240-76517-4

Matrix: Water | Lab File ID: UXR7251.D

Analysis Method: 8260C | Date Collected: 03/08/2017 14:05

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 17:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U *	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.90	J	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76517-1

SDG No.:

Client Sample ID: MRC-MW76A-030817 | Lab Sample ID: 240-76517-4

Matrix: Water | Lab File ID: UXR7251.D

Analysis Method: 8260C | Date Collected: 03/08/2017 14:05

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 17:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	87		80-120
460-00-4	4-Bromofluorobenzene (Surr)	84		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76517-1

SDG No.:

Client Sample ID: MRC-MW76B-030817 | Lab Sample ID: 240-76517-5

Matrix: Water | Lab File ID: UXR7252.D

Analysis Method: 8260C | Date Collected: 03/08/2017 15:14

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 17:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	2.2		1.0	0.25
75-35-4	1,1-Dichloroethene	1.3		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U *	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.4		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76517-1

SDG No.:

Client Sample ID: MRC-MW76B-030817 | Lab Sample ID: 240-76517-5

Matrix: Water | Lab File ID: UXR7252.D

Analysis Method: 8260C | Date Collected: 03/08/2017 15:14

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 17:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	13		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	86		80-120
460-00-4	4-Bromofluorobenzene (Surr)	86		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76517-1

SDG No.:

Client Sample ID: MRC-MW44A-030817 | Lab Sample ID: 240-76517-2

Matrix: Water | Lab File ID: UXR7242.D

Analysis Method: 8260C | Date Collected: 03/08/2017 09:49

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 14:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
108-90-7	Chlorobenzene	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	90		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-132

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76517-1

SDG No.:

Client Sample ID: MRC-MW44A-030817 | Lab Sample ID: 240-76517-2

Matrix: Water | Lab File ID: Z24334_05.D

Analysis Method: 522 | Date Collected: 03/08/2017 09:49

Extract. Method: 3535A | Date Extracted: 03/13/2017 19:00

Sample wt/vol: 100(mL) | Date Analyzed: 03/15/2017 14:02

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 114936 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	4.7		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	84		46-130

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-76517-1

SDG No.:

Client Sample ID: MRC-MW44A-030817 | Lab Sample ID: 240-76517-2

Matrix: Water | Lab File ID: xc1610.D

Analysis Method: 680 | Date Collected: 03/08/2017 09:49

Extract. Method: 680 | Date Extracted: 03/13/2017 15:39

Sample wt/vol: 507.6(mL) | Date Analyzed: 03/16/2017 15:06

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 472745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U F1	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U F1	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.048	U	0.49	0.048
55722-26-4	Octachlorobiphenyl	0.037	U F1	0.30	0.037
27323-18-8	Monochlorobiphenyl	0.0055	U F1	0.099	0.0055
2051-24-3	DCB Decachlorobiphenyl	0.069	U F1	0.49	0.069
25512-42-9	Dichlorobiphenyl	0.0053	U F1 F2	0.099	0.0053
25429-29-2	Pentachlorobiphenyl	0.014	U F1	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U F1 F2	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0064	U F1 F2	0.099	0.0064

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	44		25-113

Appendix C

Support Documentation

3.6/C3.3

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.1
Client Contact: Mr. Stuart Cameron	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3022	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Middle River Center	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (GC/MS Sim) 522 MOD	PCBs Homologs and Chlorinated	Benzenes (680 and 8260C)	Total Number of containers	Special Instructions/Note:
				Preservation Code:			A					
TB-030817	3/8/17	—	G	Water			2					
MRC-MW44A-030817	↓	0949	↓	Water				2	2	3		
MRC-MW43A-030817	↓	1129	↓	Water				2				
MRC-MW76A-030817	↓	1405	↓	Water			3					
MRC-MW76B-030817	↓	1514	↓	Water			3					
				Water								
				Water								
				Water								
				Water								
				Water								
				Water								

240-76517 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Pr	3/8/17 1600	TI INC	[signature]	3/9/17 940	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
...uished by:	Date/Time:	Company	Received by:	Date/Time:	Com

...dy Seals Intact: | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 70517
Canton Facility

Client Tetra Tech Site Name MKC Cooler unpacked by: [signature]

Cooler Received on 3/9/17 Opened on 3/9/17

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 3.6 °C Corrected Cooler Temp. 3.3 °C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity ____ Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # B630301VB Yes No
15. Was a LL Hg or Me Hg trip blank present? ____ Yes No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.

Sample(s) ____ were received in a broken container.

Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.

Time preserved: ____ Preservative(s) added/Lot number(s): ____

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-76517-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 522 1.4 Dioxane analysis was performed at TestAmerica Burlington Laboratory. The 680 PCB analysis was perfromed at TestAmerica Savannah Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 3/9/2017 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3º C.

1,4-DIOXANE
Sample MRC-MW44A-030817 (240-76517-2) was analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 03/13/2017 and analyzed on 03/15/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples TB-030817 (240-76517-1), MRC-MW44A-030817 (240-76517-2), MRC-MW76A-030817 (240-76517-4) and MRC-MW76B-030817 (240-76517-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/14/2017.

The continuing calibration verification (CCV) for analytical batch 270478 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required. TB-030817 (240-76517-1), MRC-MW44A-030817 (240-76517-2), MRC-MW76A-030817 (240-76517-4) and MRC-MW76B-030817 (240-76517-5)

The laboratory control sample (LCS) for analytical batch 240-270478 recovered outside control limits for the following analyte. 2-Butanone. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. TB-030817 (240-76517-1), MRC-MW44A-030817 (240-76517-2), MRC-MW76A-030817 (240-76517-4), MRC-MW76B-030817 (240-76517-5) and (LCS 240-270478/4)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)
Sample MRC-MW44A-030817 (240-76517-2) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 03/13/2017 and analyzed on 03/16/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76517-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
680	Polychlorinated Biphenyls (PCBs) (GC/MS)	EPA	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76517-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-76517-1	TB-030817	Water	03/08/17 00:00	03/09/17 09:40
240-76517-2	MRC-MW44A-030817	Water	03/08/17 09:49	03/09/17 09:40
240-76517-4	MRC-MW76A-030817	Water	03/08/17 14:05	03/09/17 09:40
240-76517-5	MRC-MW76B-030817	Water	03/08/17 15:14	03/09/17 09:40

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-030817	240-76517-1	84	89	90	83
MRC-MW44A-030817	240-76517-2	90	91	93	88
MRC-MW76A-030817	240-76517-4	87	90	90	84
MRC-MW76B-030817	240-76517-5	86	89	90	86
	MB 240-270478/6	86	90	89	84
	LCS 240-270478/4	88	87	89	87
MRC-MW44A-030817 MS	240-76517-2 MS	86	85	90	86
MRC-MW44A-030817 MSD	240-76517-2 MSD	88	87	89	86

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR7239.D

Lab ID: LCS 240-270478/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.82	98	79-133	
1,2,3-Trichlorobenzene	10.0	8.79	88	53-135	
1,1,2,2-Tetrachloroethane	10.0	9.95	99	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.3	103	65-151	
1,1,2-Trichloroethane	10.0	10.4	104	80-120	
1,1-Dichloroethane	10.0	9.81	98	77-121	
1,1-Dichloroethene	10.0	9.75	97	70-141	
1,2,4-Trichlorobenzene	10.0	8.53	85	53-137	
1,2-Dibromo-3-Chloropropane	10.0	9.93	99	46-140	
Ethylene Dibromide	10.0	10.1	101	80-126	
1,2-Dichlorobenzene	10.0	9.86	99	80-120	
1,2-Dichloroethane	10.0	10.1	101	76-130	
1,2-Dichloropropane	10.0	9.85	99	79-121	
1,3-Dichlorobenzene	10.0	9.55	95	80-120	
1,4-Dichlorobenzene	10.0	9.60	96	80-120	
2-Butanone (MEK)	20.0	25.6	128	54-122	*
2-Hexanone	20.0	19.9	100	56-124	
4-Methyl-2-pentanone (MIBK)	20.0	19.7	99	60-131	
Acetone	20.0	20.5	102	46-120	
Benzene	10.0	9.99	100	80-120	
Dichlorobromomethane	10.0	10.0	100	76-125	
Bromoform	10.0	9.61	96	52-157	
Bromomethane	10.0	4.54	45	24-160	
Carbon disulfide	10.0	8.65	86	58-160	
Carbon tetrachloride	10.0	10.2	102	69-149	
Chlorobenzene	10.0	10.1	101	80-120	
Chloroethane	10.0	4.81	48	24-147	
Chloroform	10.0	10.0	100	80-120	
Chloromethane	10.0	8.09	81	50-135	
cis-1,2-Dichloroethene	10.0	9.70	97	80-120	
cis-1,3-Dichloropropene	10.0	9.79	98	75-120	
Cyclohexane	10.0	10.7	107	66-135	
Chlorodibromomethane	10.0	9.72	97	68-131	
Dichlorodifluoromethane	10.0	9.62	96	32-140	
Ethylbenzene	10.0	10.0	100	80-120	
Isopropylbenzene	10.0	10.2	102	80-120	
Methyl acetate	50.0	50.4	101	65-124	
Methyl tert-butyl ether	10.0	9.91	99	75-126	
Methylcyclohexane	10.0	11.0	110	71-122	
Methylene Chloride	10.0	9.84	98	68-136	
Styrene	10.0	10.1	101	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR7239.D

Lab ID: LCS 240-270478/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Tetrachloroethene	10.0	10.3	103	80-123	
Toluene	10.0	10.1	101	80-121	
trans-1,2-Dichloroethene	10.0	10.0	100	80-123	
trans-1,3-Dichloropropene	10.0	9.73	97	65-120	
Trichloroethene	10.0	9.83	98	80-122	
Trichlorofluoromethane	10.0	7.71	77	56-161	
Vinyl chloride	10.0	9.74	97	60-129	
Xylenes, Total	20.0	20.1	101	80-120	
m-Xylene & p-Xylene	10.0	10.0	100	80-120	
o-Xylene	10.0	10.1	101	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR7262.D

Lab ID: 240-76517-2 MS Client ID: MRC-MW44A-030817 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,2,3-Trichlorobenzene	10.0	0.35 U	8.60	86	40-139	
1,2,4-Trichlorobenzene	10.0	0.27 U	8.60	86	35-140	
1,2-Dichlorobenzene	10.0	0.26 U	9.65	97	62-123	
1,3-Dichlorobenzene	10.0	0.32 U	9.43	94	59-122	
1,4-Dichlorobenzene	10.0	0.23 U	9.44	94	60-122	
Chlorobenzene	10.0	0.32 U	9.72	97	58-128	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR7263.D

Lab ID: 240-76517-2 MSD Client ID: MRC-MW44A-030817 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,2,3-Trichlorobenzene	10.0	8.55	85	1	35	40-139	
1,2,4-Trichlorobenzene	10.0	8.23	82	4	35	35-140	
1,2-Dichlorobenzene	10.0	9.21	92	5	35	62-123	
1,3-Dichlorobenzene	10.0	8.86	89	6	35	59-122	
1,4-Dichlorobenzene	10.0	8.96	90	5	35	60-122	
Chlorobenzene	10.0	9.51	95	2	35	58-128	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Lab File ID: UXR7241.D Lab Sample ID: MB 240-270478/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX17 Date Analyzed: 03/14/2017 12:29

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-270478/4	UXR7239.D	03/14/2017 11:44
MRC-MW44A-030817	240-76517-2	UXR7242.D	03/14/2017 14:06
TB-030817	240-76517-1	UXR7250.D	03/14/2017 17:03
MRC-MW76A-030817	240-76517-4	UXR7251.D	03/14/2017 17:26
MRC-MW76B-030817	240-76517-5	UXR7252.D	03/14/2017 17:48
MRC-MW44A-030817 MS	240-76517-2 MS	UXR7262.D	03/14/2017 21:31
MRC-MW44A-030817 MSD	240-76517-2 MSD	UXR7263.D	03/14/2017 21:53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76517-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-270478/6

Matrix: Water | Lab File ID: UXR7241.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 12:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76517-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-270478/6

Matrix: Water | Lab File ID: UXR7241.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 12:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	89		73-124
1868-53-7	Dibromofluoromethane (Surr)	86		80-120
460-00-4	4-Bromofluorobenzene (Surr)	84		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Lab File ID: BFB1439.D BFB Injection Date: 03/10/2017

Instrument ID: A3UX17 BFB Injection Time: 15:12

Analysis Batch No.: 270112

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	51.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	85.6	
175	5.0 - 9.0 % of mass 174	5.9	(6.9) 1
176	95.0 - 101.0 % of mass 174	84.6	(98.9) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-270112/2	UXR7196.D	03/10/2017	15:44
	STD8260 240-270112/3	UXR7197.D	03/10/2017	16:07
	STD8260 240-270112/4	UXR7198.D	03/10/2017	16:29
	STD8260 240-270112/5	UXR7199.D	03/10/2017	16:52
	STD8260 240-270112/6	UXR7200.D	03/10/2017	17:14
	STD8260 240-270112/7	UXR7201.D	03/10/2017	17:36
	ICV 240-270112/8	UXR7202.D	03/10/2017	17:59
	STDA9 240-270112/9	UXR7203.D	03/10/2017	18:21
	STDA9 240-270112/10	UXR7204.D	03/10/2017	18:44
	STDA9 240-270112/11	UXR7205.D	03/10/2017	19:06
	STDA9 240-270112/12	UXR7206.D	03/10/2017	19:28
	STDA9 240-270112/13	UXR7207.D	03/10/2017	19:50
	STDA9 240-270112/14	UXR7208.D	03/10/2017	20:12
	ICV 240-270112/15	UXR7209.D	03/10/2017	20:34

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-270112/7	UXR7201.D
Level 2	STD8260 240-270112/6	UXR7200.D
Level 3	STD8260 240-270112/5	UXR7199.D
Level 4	STD8260 240-270112/4	UXR7198.D
Level 5	STD8260 240-270112/3	UXR7197.D
Level 6	STD8260 240-270112/2	UXR7196.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1216 0.2550	0.1871	0.2212	0.2288	0.2530	Lin1	-0.088	0.2531			0.1000				0.9980		0.9900
Chloromethane	0.4797 0.3334	0.4004	0.3751	0.3600	0.3567	Ave		0.3842			0.1000	13.5		20.0			
Vinyl chloride	0.3955 0.3345	0.3652	0.3702	0.3578	0.3570	Ave		0.3634			0.1000	5.5		20.0			
Butadiene	0.3649 0.2978	0.3210	0.3300	0.3287	0.3216	Ave		0.3274				6.6		20.0			
Bromomethane	0.1839 0.0986	0.1523	0.1397	0.1380	0.1171	Qua	0.0409	0.1372	-0.000996		0.0500				0.9990		0.9900
Chloroethane	0.2061 0.1534	0.1966	0.1858	0.1789	0.1649	Ave		0.1810			0.0500	10.8		20.0			
Dichlorofluoromethane	0.4353 0.3304	0.4220	0.3973	0.3761	0.3670	Ave		0.3880				9.9		20.0			
Trichlorofluoromethane	0.2384 0.3021	0.2819	0.3062	0.3119	0.2953	Ave		0.2893			0.1000	9.3		20.0			
Ethyl ether	0.2315 0.2194	0.2188	0.2178	0.2082	0.2108	Ave		0.2178				3.8		20.0			
Acrolein	0.0409 0.0336	0.0320	0.0330	0.0322	0.0333	Ave		0.0342				9.8		20.0			
1,1-Dichloroethene	0.2737 0.2443	0.2460	0.2419	0.2358	0.2430	Ave		0.2474			0.1000	5.4		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1423 0.1796	0.1693	0.1736	0.1781	0.1849	Ave		0.1713			0.0500	8.9		20.0			
Acetone	0.3022 0.0521	0.1030	0.0669	0.0596	0.0654	Qua	0.1279	0.0655	-0.000183		0.0100				0.9930		0.9900
Iodomethane	0.4059 0.3990	0.3789	0.4023	0.3960	0.3894	Ave		0.3952				2.5		20.0			
Carbon disulfide	0.7853 0.7817	0.7189	0.7433	0.7335	0.7460	Ave		0.7514			0.1000	3.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1541 0.1631	0.1527	0.1547	0.1595	0.1590	Ave		0.1572				2.6		20.0			
Methyl acetate	0.1975 0.1681	0.1679	0.1679	0.1597	0.1640	Ave		0.1709			0.1000	7.9		20.0			
Methylene Chloride	0.8026 0.2639	0.3938	0.3131	0.2786	0.2647	Lin1	0.2741	0.2548			0.1000				1.0000		0.9900
2-Methyl-2-propanol	0.0290 +++++	0.0208	0.0193	0.0194	0.0211	Ave		0.0219				18.4		20.0			
Acrylonitrile	0.0909 0.0870	0.0844	0.0876	0.0836	0.0860	Ave		0.0866				3.0		20.0			
Methyl tert-butyl ether	0.8226 0.8093	0.7455	0.7714	0.7492	0.7629	Ave		0.7768			0.1000	4.1		20.0			
trans-1,2-Dichloroethene	0.3063 0.2761	0.2638	0.2662	0.2641	0.2691	Ave		0.2743			0.1000	6.0		20.0			
Hexane	0.0703 0.0776	0.0661	0.0686	0.0697	0.0744	Ave		0.0711				5.9		20.0			
1,1-Dichloroethane	0.5118 0.4624	0.4505	0.4551	0.4469	0.4437	Ave		0.4617			0.2000	5.5		20.0			
Vinyl acetate	0.5406 0.5058	0.4151	0.4702	0.4523	0.4661	Ave		0.4750				9.2		20.0			
2,2-Dichloropropane	0.2970 0.3090	0.2843	0.2948	0.2973	0.2920	Ave		0.2957				2.7		20.0			
cis-1,2-Dichloroethene	0.3431 0.3083	0.2903	0.3029	0.3061	0.3019	Ave		0.3088			0.1000	5.8		20.0			
2-Butanone (MEK)	0.1473 0.0808	0.0885	0.0854	0.0808	0.0878	Lin1	0.0574	0.0813			0.0100				0.9980		0.9900
Chlorobromomethane	0.1417 0.1430	0.1350	0.1410	0.1380	0.1431	Ave		0.1403				2.3		20.0			
Tetrahydrofuran	0.0940 0.0672	0.0672	0.0669	0.0653	0.0689	Ave		0.0716				15.4		20.0			
Chloroform	0.4823 0.4639	0.4423	0.4652	0.4467	0.4575	Ave		0.4597			0.2000	3.1		20.0			
1,1,1-Trichloroethane	0.3816 0.3785	0.3615	0.3688	0.3710	0.3670	Ave		0.3714			0.1000	2.0		20.0			
Cyclohexane	0.4133 0.4363	0.3986	0.4073	0.4103	0.4318	Ave		0.4163			0.1000	3.5		20.0			
1,1-Dichloropropene	0.3925 0.3704	0.3522	0.3651	0.3522	0.3612	Ave		0.3656				4.1		20.0			
Carbon tetrachloride	0.2786 0.3416	0.2778	0.3186	0.3176	0.3251	Ave		0.3099			0.1000	8.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0171 +++++	0.0114	0.0109	0.0089	0.0098	Lin1	0.0987	0.0094							0.9950		0.9900
Benzene	1.2524 1.1018	1.0972	1.0872	1.0691	1.0679	Ave		1.1126			0.5000	6.3		20.0			
1,2-Dichloroethane	0.3862 0.3576	0.3534	0.3594	0.3433	0.3508	Ave		0.3584			0.1000	4.1		20.0			
n-Heptane	0.0704 0.0800	0.0688	0.0689	0.0714	0.0745	Ave		0.0723				5.9		20.0			
Trichloroethene	0.3091 0.3023	0.2878	0.2863	0.2953	0.2953	Ave		0.2960			0.1500	2.9		20.0			
Methylcyclohexane	0.4213 0.4763	0.4025	0.4316	0.4393	0.4641	Ave		0.4392			0.1000	6.2		20.0			
1,2-Dichloropropane	0.2682 0.2576	0.2482	0.2526	0.2497	0.2523	Ave		0.2548			0.1000	2.9		20.0			
1,4-Dioxane	0.0047 +++++	0.0034	0.0027	0.0030	0.0029	Lin1	0.0174	0.0028							0.9970		0.9900
Dibromomethane	0.1836 0.1592	0.1508	0.1546	0.1531	0.1569	Ave		0.1597				7.6		20.0			
Dichlorobromomethane	0.3240 0.3426	0.3060	0.3097	0.3155	0.3259	Ave		0.3206			0.1500	4.1		20.0			
2-Chloroethyl vinyl ether	0.1316 0.1539	0.1263	0.1364	0.1347	0.1395	Ave		0.1371				6.9		20.0			
cis-1,3-Dichloropropene	0.3871 0.4445	0.3694	0.3925	0.4028	0.4148	Ave		0.4019			0.1500	6.4		20.0			
4-Methyl-2-pentanone (MIBK)	0.2572 0.2133	0.2036	0.2124	0.2058	0.2112	Ave		0.2173			0.0500	9.2		20.0			
Toluene	1.7863 1.6150	1.6262	1.6207	1.5812	1.5701	Ave		1.6332			0.4000	4.8		20.0			
trans-1,3-Dichloropropene	0.4466 0.5283	0.4377	0.4741	0.4772	0.4942	Ave		0.4764			0.1000	6.9		20.0			
Ethyl methacrylate	0.4149 0.4411	0.3947	0.4078	0.4172	0.4264	Ave		0.4170				3.8		20.0			
1,1,2-Trichloroethane	0.3349 0.2993	0.2818	0.2996	0.2953	0.2958	Ave		0.3011			0.1000	5.9		20.0			
Tetrachloroethene	0.3380 0.3141	0.2985	0.3162	0.3128	0.3127	Ave		0.3154			0.1500	4.0		20.0			
1,3-Dichloropropane	0.5944 0.5338	0.5444	0.5524	0.5287	0.5284	Ave		0.5470				4.6		20.0			
2-Hexanone	0.2485 0.1684	0.1969	0.1811	0.1757	0.1806	Ave		0.1919			0.0500	15.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.3122 0.3552	0.2888	0.3186	0.3190	0.3378	Ave		0.3219				7.0		20.0			
Ethylene Dibromide	0.3177 0.3051	0.2890	0.3020	0.2946	0.3043	Ave		0.3021				3.3		20.0			
Chlorobenzene	1.1032 1.0588	1.0616	1.0476	1.0273	1.0304	Ave		1.0548			0.3000	2.6		20.0			
1,1,1,2-Tetrachloroethane	0.3755 0.3733	0.3372	0.3571	0.3526	0.3685	Ave		0.3607				4.0		20.0			
Ethylbenzene	0.5946 0.5771	0.5735	0.5686	0.5730	0.5709	Ave		0.5763				1.6		20.0			
m-Xylene & p-Xylene	0.7134 0.7156	0.7052	0.7139	0.6941	0.7042	Ave		0.7077				1.2		20.0			
o-Xylene	0.7501 0.7100	0.6831	0.7188	0.7008	0.7063	Ave		0.7115				3.1		20.0			
Styrene	1.0901 1.1975	1.0881	1.1257	1.1457	1.1578	Ave		1.1342			0.3000	3.7		20.0			
Bromoform	0.1946 0.2401	0.1789	0.2006	0.2071	0.2263	Ave		0.2079			0.1000	10.6		20.0			
Isopropylbenzene	1.8627 1.8586	1.7925	1.8314	1.8133	1.8468	Ave		1.8342			0.1000	1.5		20.0			
1,1,2,2-Tetrachloroethane	0.8111 0.7205	0.6986	0.7075	0.6822	0.7027	Ave		0.7204			0.3000	6.4		20.0			
Bromobenzene	0.8976 0.8739	0.8565	0.8601	0.8275	0.8262	Ave		0.8570				3.2		20.0			
1,2,3-Trichloropropane	0.3029 0.2393	0.2388	0.2487	0.2378	0.2355	Ave		0.2505				10.4		20.0			
trans-1,4-Dichloro-2-butene	0.2001 0.2092	0.1669	0.1917	0.1806	0.1922	Ave		0.1901				7.8		20.0			
N-Propylbenzene	1.0903 0.9836	0.9128	0.9557	0.9338	0.9287	Ave		0.9675				6.7		20.0			
2-Chlorotoluene	0.7980 0.8309	0.8310	0.8258	0.8115	0.7946	Ave		0.8153				2.0		20.0			
1,3,5-Trimethylbenzene	2.8378 2.8221	2.7265	2.7835	2.7375	2.7830	Ave		2.7817				1.6		20.0			
4-Chlorotoluene	0.9383 0.8672	0.8682	0.8862	0.8370	0.8172	Ave		0.8690				4.8		20.0			
tert-Butylbenzene	2.5770 2.4995	2.4736	2.4559	2.4510	2.4508	Ave		2.4846				2.0		20.0			
1,2,4-Trimethylbenzene	3.1154 2.9129	2.8548	2.8961	2.8712	2.8557	Ave		2.9177				3.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.5800 3.5133	3.4932	3.4446	3.5099	3.4836	Ave		3.5041				1.3		20.0			
1,3-Dichlorobenzene	1.8026 1.6371	1.6856	1.6570	1.6479	1.6448	Ave		1.6792			0.6000	3.7		20.0			
4-Isopropyltoluene	2.8640 3.0095	2.9210	2.9737	3.0147	3.0196	Ave		2.9671				2.1		20.0			
1,4-Dichlorobenzene	1.8976 1.6831	1.7550	1.7294	1.6494	1.6656	Ave		1.7300			0.5000	5.3		20.0			
n-Butylbenzene	2.5448 2.5158	2.5481	2.5468	2.5915	2.5565	Ave		2.5506				1.0		20.0			
1,2-Dichlorobenzene	1.6334 1.5087	1.6345	1.5646	1.5785	1.5610	Ave		1.5801			0.4000	3.0		20.0			
1,2-Dibromo-3-Chloropropane	0.0989 0.1402	0.1248	0.1328	0.1395	0.1477	Ave		0.1307			0.0500	13.3		20.0			
1,2,4-Trichlorobenzene	1.0729 0.9128	1.0266	0.9878	1.1130	0.9811	Ave		1.0157			0.2000	7.0		20.0			
Hexachlorobutadiene	0.4628 0.3652	0.3953	0.3856	0.4346	0.3877	Ave		0.4052				8.9		20.0			
Naphthalene	2.7881 2.1557	2.4553	2.2882	2.6966	2.3482	Ave		2.4554				9.9		20.0			
1,2,3-Trichlorobenzene	0.9821 0.8169	0.9501	0.8656	1.0347	0.8811	Ave		0.9217				8.8		20.0			
Dibromofluoromethane (Surr)	0.2663 0.2446	0.2468	0.2393	0.2367	0.2434	Ave		0.2462				4.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3871 0.2918	0.2951	0.2930	0.2846	0.2887	Ave		0.3067				12.9		20.0			
Toluene-d8 (Surr)	1.6288 1.3625	1.4249	1.3684	1.3512	1.3726	Ave		1.4181				7.5		20.0			
4-Bromofluorobenzene (Surr)	0.6004 0.4994	0.5240	0.4946	0.4970	0.5059	Ave		0.5202				7.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-270112/7	UXR7201.D
Level 2	STD8260 240-270112/6	UXR7200.D
Level 3	STD8260 240-270112/5	UXR7199.D
Level 4	STD8260 240-270112/4	UXR7198.D
Level 5	STD8260 240-270112/3	UXR7197.D
Level 6	STD8260 240-270112/2	UXR7196.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Lin1	6929 1208072	43424	130930	279199	623101	0.500 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	27344 1579627	92922	222063	439385	878229	0.500 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	22544 1584726	84752	219151	436699	879173	0.500 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	20799 1411118	74501	195367	401178	792030	0.500 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Qua	10483 467110	35340	82724	168379	288233	0.500 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	11750 726668	45642	110002	218352	406165	0.500 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	24813 1565500	97955	235183	458975	903786	0.500 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	13590 1431478	65430	181287	380613	727077	0.500 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	13198 1039590	50786	128902	254129	518975	0.500 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	11649 796738	37095	97686	196311	409825	2.50 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	15604 1157334	57094	143177	287839	598258	0.500 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	8112 850923	39301	102745	217424	455327	0.500 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Qua	34455 493704	47827	79208	145580	321837	1.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	23138 1890110	87944	238145	483300	958849	0.500 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	44764 3703243	166860	439995	895230	1836978	0.500 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	8783 772922	35437	91575	194653	391598	0.500 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	56303 3982493	194795	496971	974823	2018885	2.50 200	10.0	25.0	50.0	100
Methylene Chloride	FB	Lin1	45752 1250099	91402	185351	339982	651911	0.500 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	16533 +++++	48368	114371	236896	519968	5.00 +++++	20.0	50.0	100	200
Acrylonitrile	FB	Ave	51812 4123515	195789	518291	1020041	2117267	5.00 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	46892 3834289	173027	456663	914350	1878638	0.500 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	17462 1308303	61224	157572	322293	662593	0.500 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	4009 367683	15332	40595	85016	183119	0.500 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	29174 2190888	104569	269423	545431	1092458	0.500 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	30815 2396245	96349	278354	552071	1147753	0.500 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	16930 1463892	65977	174518	362855	719020	0.500 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	19560 1460858	67369	179321	373601	743476	0.500 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Lin1	16789 765929	41061	101058	197190	432506	1.00 80.0	4.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	8079 677378	31338	83490	168424	352343	0.500 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	10714 636915	31209	79202	159487	339495	1.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	27492 2197670	102665	275407	545139	1126584	0.500 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	21753 1793455	83914	218293	452805	903664	0.500 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	23561 2067213	92523	241121	500720	1063256	0.500 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	22371 1754994	81752	216099	429785	889389	0.500 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	15879 1618332	64479	188571	387614	800621	0.500 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	CBNZ d5	Lin1	17362 +++++	46009	115087	198236	444542	12.5 +++++	50.0	125	250	500
Benzene	FB	Ave	71389 5219835	254652	643552	1304790	2629668	0.500 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	22012 1694178	82020	212736	418998	863913	0.500 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	4013 379047	15974	40773	87134	183515	0.500 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	17619 1432437	66801	169472	360426	727175	0.500 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	24014 2256770	93416	255493	536158	1142894	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	15288 1220272	57616	149533	304770	621173	0.500 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Lin1	5367 +++++	15558	31806	73819	143153	10.0 +++++	40.0	100	200	400
Dibromomethane	FB	Ave	10465 754014	35005	91542	186811	386232	0.500 40.0	2.00	5.00	10.0	20.0
Dichlorobromomethane	FB	Ave	18471 1623059	71024	183344	385092	802519	0.500 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	15000 1458682	58613	161505	328686	687022	1.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	22064 2105978	85739	232360	491647	1021480	0.500 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	29321 2021263	94530	251443	502329	1040327	1.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	72342 5747631	263584	682210	1406145	2839447	0.500 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	18087 1880001	70951	199576	424386	893766	0.500 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	16804 1569832	63970	171654	370981	771193	0.500 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	13563 1065045	45670	126121	262589	534907	0.500 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	13687 1117819	48383	133109	278170	565508	0.500 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	24072 1899568	88248	232541	470212	955517	0.500 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	20126 1198496	63841	152478	312522	653147	1.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	12642 1263998	46804	134120	283716	610819	0.500 40.0	2.00	5.00	10.0	20.0
Ethylene Dibromide	CBNZ d5	Ave	12867 1085802	46850	127119	261979	550285	0.500 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	44678 3768296	172082	440967	913610	1863448	0.500 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	15206 1328565	54660	150328	313574	666343	0.500 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	24080 2053765	92962	239353	509603	1032362	0.500 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	28891 2546616	114311	300522	617270	1273577	0.500 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBNZ d5	Ave	30380 2526722	110719	302576	623213	1277231	0.500 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	44149 4261923	176367	473855	1018879	2093792	0.500 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Ave	7883 854603	28990	84432	184185	409192	0.500 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	75439 6614494	290552	770913	1612585	3339881	0.500 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	16690 1330842	60355	160251	331021	703942	0.500 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	18470 1614346	73996	194828	401532	827635	0.500 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	6233 442113	20630	56343	115387	235940	0.500 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	4117 386516	14421	43419	87618	192504	0.500 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	22437 1816894	78855	216487	453095	930273	0.500 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	16421 1534895	71795	187054	393766	795958	0.500 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	58395 5213040	235546	630487	1328311	2787741	0.500 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	19309 1601868	75002	200738	406132	818635	0.500 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCBd 4	Ave	53029 4617226	213699	556291	1189315	2454943	0.500 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	64108 5380878	246628	655997	1393213	2860569	0.500 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	73668 6489865	301781	780239	1703134	3489501	0.500 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	37094 3024092	145618	375321	799614	1647638	0.500 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	58934 5559216	252350	673579	1462824	3024705	0.500 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	39048 3109158	151619	391735	800344	1668423	0.500 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	52366 4647170	220130	576882	1257477	2560852	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	33612 2786882	141207	354390	765924	1563624	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2035 258907	10781	30083	67709	147969	0.500 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	22079 1686216	88693	223753	540084	982734	0.500 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Ave	9523 674628	34154	87351	210863	388326	0.500 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	57373 3982009	212120	518301	1308477	2352228	0.500 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	20209 1508980	82084	196071	502077	882560	0.500 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	15182 1158857	57281	141658	288837	599398	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	22066 1382618	68496	173474	347386	710819	0.500 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	65966 4848961	230958	576011	1201600	2482348	0.500 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	24315 1777237	84941	208193	441966	914921	0.500 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 18:21 Calibration End Date: 03/10/2017 20:12 Calibration ID: 38796

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-270112/14	UXR7208.D
Level 2	STDA9 240-270112/13	UXR7207.D
Level 3	STDA9 240-270112/12	UXR7206.D
Level 4	STDA9 240-270112/11	UXR7205.D
Level 5	STDA9 240-270112/10	UXR7204.D
Level 6	STDA9 240-270112/9	UXR7203.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0286 0.0224	0.0256	0.0269	0.0264	0.0251	Ave		0.0258				8.1		20.0			
Isopropyl ether	0.2485 0.2373	0.2431	0.2452	0.2455	0.2389	Ave		0.2431				1.8		20.0			
2-Chloro-1,3-butadiene	0.4094 0.4001	0.3984	0.3989	0.4014	0.3902	Ave		0.3997				1.5		20.0			
Tert-butyl ethyl ether	0.7494 0.7719	0.7459	0.7669	0.7720	0.7495	Ave		0.7593				1.6		20.0			
Ethyl acetate	0.2446 0.2046	0.2149	0.2237	0.2119	0.2087	Ave		0.2181				6.7		20.0			
Propionitrile	0.0294 0.0286	0.0305	0.0324	0.0311	0.0308	Ave		0.0305				4.3		20.0			
Methacrylonitrile	0.1520 0.1521	0.1489	0.1528	0.1519	0.1479	Ave		0.1509				1.4		20.0			
Tert-amyl methyl ether	0.7008 0.7599	0.7294	0.7354	0.7431	0.7449	Ave		0.7356				2.7		20.0			
n-Butanol	0.0090 +++++	0.0084	0.0085	0.0095	0.0091	Ave		0.0089				4.8		20.0			
Ethyl acrylate	0.2588 0.2699	0.2473	0.2578	0.2725	0.2712	Ave		0.2629				3.8		20.0			
Methyl methacrylate	0.1957 0.2012	0.1927	0.2008	0.2060	0.1989	Ave		0.1992				2.3		20.0			
2-Nitropropane	0.0599 0.0547	0.0534	0.0513	0.0536	0.0533	Ave		0.0544				5.4		20.0			
n-Butyl acetate	0.2148 0.2004	0.1988	0.1989	0.2139	0.2044	Ave		0.2052				3.6		20.0			
1-Chlorohexane	0.4713 0.5012	0.4584	0.4765	0.4956	0.4675	Ave		0.4784				3.5		20.0			
Cyclohexanone	0.0236 +++++	0.0249	0.0214	0.0229	0.0204	Ave		0.0227				7.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 18:21 Calibration End Date: 03/10/2017 20:12 Calibration ID: 38796

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1773 0.2050	0.1714	0.1896	0.1985	0.2206	Lin1	-0.104	0.2100							0.9980		0.9900
1,2,3-Trimethylbenzene	2.7577 3.0022	2.8363	2.8712	2.9826	2.8916	Ave		2.8903				3.2		20.0			
Benzyl chloride	0.1660 0.3034	0.1802	0.2176	0.2483	0.2697	Lin1	-0.197	0.2925							0.9940		0.9900
1,3,5-Trichlorobenzene	0.9970 1.0218	1.1052	1.0956	1.1027	1.0499	Ave		1.0621				4.3		20.0			
2-Methylnaphthalene	1.4249 1.5166	1.6388	1.4833	1.5184	1.5021	Ave		1.5140				4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 18:21 Calibration End Date: 03/10/2017 20:12 Calibration ID: 38796

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-270112/14	UXR7208.D
Level 2	STDA9 240-270112/13	UXR7207.D
Level 3	STDA9 240-270112/12	UXR7206.D
Level 4	STDA9 240-270112/11	UXR7205.D
Level 5	STDA9 240-270112/10	UXR7204.D
Level 6	STDA9 240-270112/9	UXR7203.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	30530 1075003	55238	151526	301987	590174	10.0 400	20.0	50.0	100	200
Isopropyl ether	FB	Ave	26550 1141183	52559	138257	280678	562579	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	43749 1924358	86116	224933	458811	918934	1.00 40.0	2.00	5.00	10.0	20.0
Tert-butyl ethyl ether	FB	Ave	80081 3712249	161242	432450	882555	1765145	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl acetate	FB	Ave	52276 1967819	92913	252317	484514	983019	2.00 80.0	4.00	10.0	20.0	40.0
Propionitrile	FB	Ave	31419 1375643	65833	182494	355493	726419	10.0 400	20.0	50.0	100	200
Methacrylonitrile	FB	Ave	162440 7317358	321772	861839	1736279	3482152	10.0 400	20.0	50.0	100	200
Tert-amyl methyl ether	FB	Ave	74881 3654516	157678	414685	849468	1754297	1.00 40.0	2.00	5.00	10.0	20.0
n-Butanol	CBNZ d5	Ave	16793 +++++	31936	83612	185339	377345	25.0 +++++	50.0	125	250	500
Ethyl acrylate	FB	Ave	27650 1297863	53448	145376	311509	638642	1.00 40.0	2.00	5.00	10.0	20.0
Methyl methacrylate	FB	Ave	41825 1934869	83322	226445	471091	936894	2.00 80.0	4.00	10.0	20.0	40.0
2-Nitropropane	FB	Ave	12799 526405	23078	57837	122564	250839	2.00 80.0	4.00	10.0	20.0	40.0
n-Butyl acetate	CBNZ d5	Ave	16059 663662	30055	78128	167395	337380	1.00 40.0	2.00	5.00	10.0	20.0
1-Chlorohexane	CBNZ d5	Ave	35228 1659865	69299	187183	387935	771469	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexanone	DCBd 4	Ave	9333 +++++	19431	45166	95566	176565	10.0 +++++	20.0	50.0	100	200
Pentachloroethane	CBNZ d5	Lin1	26515 1357806	51816	148967	310733	728131	2.00 80.0	4.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76517-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 18:21 Calibration End Date: 03/10/2017 20:12 Calibration ID: 38796

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	108855 5192400	221340	606867	1244805	2497232	1.00 40.0	2.00	5.00	10.0	20.0
Benzyl chloride	DCBd 4	Lin1	6553 524814	14065	45990	103622	232925	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	39356 1767265	86246	231579	460224	906764	1.00 40.0	2.00	5.00	10.0	20.0
2-Methylnaphthalene	DCBd 4	Ave	112494 5245820	255785	627047	1267415	2594591	2.00 80.0	4.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Lab Sample ID: ICV 240-270112/8 Calibration Date: 03/10/2017 17:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7202.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.1772	0.1000	0.00735	0.0100	-26.5*	20.0
Chloromethane	Ave	0.3842	0.3268	0.1000	0.00851	0.0100	-14.9	20.0
Vinyl chloride	Ave	0.3634	0.3412	0.1000	0.00939	0.0100	-6.1	20.0
Butadiene	Ave	0.3274	0.2903		0.00887	0.0100	-11.3	30.0
Bromomethane	Qua		0.1048	0.0500	0.00778	0.0100	-22.2*	20.0
Chloroethane	Ave	0.1810	0.1574	0.0500	0.00870	0.0100	-13.0	20.0
Dichlorofluoromethane	Ave	0.3880	0.3344		0.00862	0.0100	-13.8	20.0
Trichlorofluoromethane	Ave	0.2893	0.2630	0.1000	0.00909	0.0100	-9.1	20.0
Ethyl ether	Ave	0.2178	0.2181		0.0100	0.0100	0.2	20.0
Acrolein	Ave	0.0342	0.0378		0.0554	0.0500	10.7	50.0
1,1-Dichloroethene	Ave	0.2474	0.2427	0.1000	0.00981	0.0100	-1.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1713	0.1771	0.0500	0.0103	0.0100	3.4	20.0
Acetone	Qua		0.0713	0.0100	0.0211	0.0200	5.3	50.0
Iodomethane	Ave	0.3952	0.3804		0.00962	0.0100	-3.8	20.0
Carbon disulfide	Ave	0.7514	0.7442	0.1000	0.00990	0.0100	-1.0	20.0
3-Chloro-1-propene	Ave	0.1572	0.1580		0.0101	0.0100	0.5	20.0
Methyl acetate	Ave	0.1709	0.1643	0.1000	0.0481	0.0500	-3.8	20.0
Methylene Chloride	Lin1		0.2824	0.1000	0.0100	0.0100	0.0	50.0
2-Methyl-2-propanol	Ave	0.0219	0.0147		0.0672	0.100	-32.8	50.0
Acrylonitrile	Ave	0.0866	0.0840		0.0970	0.100	-3.0	20.0
Methyl tert-butyl ether	Ave	0.7768	0.7653	0.1000	0.00985	0.0100	-1.5	20.0
trans-1,2-Dichloroethene	Ave	0.2743	0.2764	0.1000	0.0101	0.0100	0.8	20.0
Hexane	Ave	0.0711	0.0749		0.0105	0.0100	5.3	20.0
1,1-Dichloroethane	Ave	0.4617	0.4557	0.2000	0.00987	0.0100	-1.3	20.0
Vinyl acetate	Ave	0.4750	0.4470		0.00941	0.0100	-5.9	50.0
2,2-Dichloropropane	Ave	0.2957	0.2779		0.00940	0.0100	-6.0	20.0
2-Butanone (MEK)	Lin1		0.0923	0.0100	0.0220	0.0200	9.9	20.0
cis-1,2-Dichloroethene	Ave	0.3088	0.3024	0.1000	0.00979	0.0100	-2.1	20.0
Chlorobromomethane	Ave	0.1403	0.1390		0.00991	0.0100	-0.9	20.0
Tetrahydrofuran	Ave	0.0716	0.0687		0.0192	0.0200	-4.0	20.0
Chloroform	Ave	0.4597	0.4562	0.2000	0.00993	0.0100	-0.7	20.0
1,1,1-Trichloroethane	Ave	0.3714	0.3711	0.1000	0.00999	0.0100	-0.0	20.0
Cyclohexane	Ave	0.4163	0.4402	0.1000	0.0106	0.0100	5.7	20.0
1,1-Dichloropropene	Ave	0.3656	0.3838		0.0105	0.0100	5.0	20.0
Carbon tetrachloride	Ave	0.3099	0.3074	0.1000	0.00992	0.0100	-0.8	20.0
Isobutyl alcohol	Lin1		0.0066		0.165	0.250	-34.2*	20.0
Benzene	Ave	1.113	1.102	0.5000	0.00991	0.0100	-0.9	20.0
1,2-Dichloroethane	Ave	0.3584	0.3583	0.1000	0.0100	0.0100	-0.0	20.0
n-Heptane	Ave	0.0723	0.0770		0.0106	0.0100	6.5	20.0
Trichloroethene	Ave	0.2960	0.2864	0.1500	0.00967	0.0100	-3.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Lab Sample ID: ICV 240-270112/8 Calibration Date: 03/10/2017 17:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7202.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4392	0.4578	0.1000	0.0104	0.0100	4.2	20.0
1,2-Dichloropropane	Ave	0.2548	0.2554	0.1000	0.0100	0.0100	0.3	20.0
1,4-Dioxane	Lin1		0.0012		0.0781	0.200	-60.9*	50.0
Dibromomethane	Ave	0.1597	0.1495		0.00936	0.0100	-6.4	20.0
Dichlorobromomethane	Ave	0.3206	0.3226	0.1500	0.0101	0.0100	0.6	20.0
2-Chloroethyl vinyl ether	Ave	0.1371	0.1306		0.00953	0.0100	-4.7	20.0
cis-1,3-Dichloropropene	Ave	0.4019	0.3922	0.1500	0.00976	0.0100	-2.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2173	0.2100	0.0500	0.0193	0.0200	-3.3	20.0
Toluene	Ave	1.633	1.598	0.4000	0.00978	0.0100	-2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4764	0.4580	0.1000	0.00962	0.0100	-3.8	20.0
Ethyl methacrylate	Ave	0.4170	0.4132		0.00991	0.0100	-0.9	20.0
1,1,2-Trichloroethane	Ave	0.3011	0.3049	0.1000	0.0101	0.0100	1.3	20.0
Tetrachloroethene	Ave	0.3154	0.3170	0.1500	0.0101	0.0100	0.5	20.0
1,3-Dichloropropane	Ave	0.5470	0.5269		0.00963	0.0100	-3.7	20.0
2-Hexanone	Ave	0.1919	0.1837	0.0500	0.0191	0.0200	-4.3	20.0
Chlorodibromomethane	Ave	0.3219	0.3127		0.00971	0.0100	-2.9	20.0
Ethylene Dibromide	Ave	0.3021	0.2959		0.00980	0.0100	-2.0	20.0
Chlorobenzene	Ave	1.055	1.039	0.3000	0.00985	0.0100	-1.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3607	0.3593		0.00996	0.0100	-0.4	20.0
Ethylbenzene	Ave	0.5763	0.5778		0.0100	0.0100	0.3	20.0
m-Xylene & p-Xylene	Ave	0.7077	0.7045		0.00995	0.0100	-0.5	20.0
o-Xylene	Ave	0.7115	0.7025		0.00987	0.0100	-1.3	20.0
Styrene	Ave	1.134	1.167	0.3000	0.0103	0.0100	2.9	20.0
Bromoform	Ave	0.2079	0.1986	0.1000	0.00955	0.0100	-4.5	20.0
Isopropylbenzene	Ave	1.834	1.832	0.1000	0.00999	0.0100	-0.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7204	0.6953	0.3000	0.00965	0.0100	-3.5	20.0
Bromobenzene	Ave	0.8570	0.8220		0.00959	0.0100	-4.1	20.0
1,2,3-Trichloropropane	Ave	0.2505	0.2415		0.00964	0.0100	-3.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1901	0.1911		0.0100	0.0100	0.5	20.0
N-Propylbenzene	Ave	0.9675	0.9394		0.00971	0.0100	-2.9	20.0
2-Chlorotoluene	Ave	0.8153	0.8151		0.0100	0.0100	-0.0	20.0
1,3,5-Trimethylbenzene	Ave	2.782	2.762		0.00993	0.0100	-0.7	20.0
4-Chlorotoluene	Ave	0.8690	0.8506		0.00979	0.0100	-2.1	20.0
tert-Butylbenzene	Ave	2.485	2.406		0.00968	0.0100	-3.2	20.0
1,2,4-Trimethylbenzene	Ave	2.918	2.784		0.00954	0.0100	-4.6	20.0
sec-Butylbenzene	Ave	3.504	3.378		0.00964	0.0100	-3.6	20.0
1,3-Dichlorobenzene	Ave	1.679	1.609	0.6000	0.00958	0.0100	-4.2	20.0
4-Isopropyltoluene	Ave	2.967	2.878		0.00970	0.0100	-3.0	20.0
1,4-Dichlorobenzene	Ave	1.730	1.653	0.5000	0.00956	0.0100	-4.4	20.0
n-Butylbenzene	Ave	2.551	2.474		0.00970	0.0100	-3.0	20.0
1,2-Dichlorobenzene	Ave	1.580	1.544	0.4000	0.00977	0.0100	-2.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Lab Sample ID: ICV 240-270112/8 Calibration Date: 03/10/2017 17:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7202.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1307	0.1264	0.0500	0.00967	0.0100	-3.3	50.0
1,2,4-Trichlorobenzene	Ave	1.016	0.8901	0.2000	0.00876	0.0100	-12.4	50.0
Hexachlorobutadiene	Ave	0.4052	0.3509		0.00866	0.0100	-13.4	20.0
Naphthalene	Ave	2.455	2.100		0.00855	0.0100	-14.5	50.0
1,2,3-Trichlorobenzene	Ave	0.9217	0.8025		0.00871	0.0100	-12.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2462	0.2164		0.00879	0.0100	-12.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3067	0.2738		0.00893	0.0100	-10.7	20.0
Toluene-d8 (Surr)	Ave	1.418	1.258		0.00887	0.0100	-11.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5202	0.4481		0.00861	0.0100	-13.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Lab Sample ID: ICV 240-270112/15 Calibration Date: 03/10/2017 20:34

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 18:21

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 20:12

Lab File ID: UXR7209.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0258	0.0266		0.103	0.100	3.2	20.0
Isopropyl ether	Ave	0.2431	0.2500		0.0103	0.0100	2.9	20.0
2-Chloro-1,3-butadiene	Ave	0.3997	0.4067		0.0102	0.0100	1.7	20.0
Tert-butyl ethyl ether	Ave	0.7593	0.7796		0.0103	0.0100	2.7	20.0
Ethyl acetate	Ave	0.2181	0.2003		0.0184	0.0200	-8.1	50.0
Propionitrile	Ave	0.0305	0.0301		0.0987	0.100	-1.3	20.0
Methacrylonitrile	Ave	0.1509	0.1459		0.0966	0.100	-3.4	20.0
Tert-amyl methyl ether	Ave	0.7356	0.7541		0.0103	0.0100	2.5	20.0
n-Butanol	Ave	0.0089	0.0049		0.137	0.250	-45.2*	20.0
Ethyl acrylate	Ave	0.2629	0.2504		0.00952	0.0100	-4.8	20.0
Methyl methacrylate	Ave	0.1992	0.1909		0.0192	0.0200	-4.2	20.0
2-Nitropropane	Ave	0.0544	0.0504		0.0185	0.0200	-7.3	20.0
n-Butyl acetate	Ave	0.2052	0.1875		0.00914	0.0100	-8.6	30.0
1-Chlorohexane	Ave	0.4784	0.4642		0.00970	0.0100	-3.0	20.0
Cyclohexanone	Ave	0.0227	0.0115		0.0507	0.100	-49.3*	20.0
Pentachloroethane	Lin1		0.1705		0.0167	0.0200	-16.3	20.0
1,2,3-Trimethylbenzene	Ave	2.890	2.881		0.00997	0.0100	-0.3	20.0
Benzyl chloride	Lin1		0.2248		0.00836	0.0100	-16.4	20.0
1,3,5-Trichlorobenzene	Ave	1.062	1.044		0.00983	0.0100	-1.7	20.0
2-Methylnaphthalene	Ave	1.514	1.378		0.0182	0.0200	-9.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Lab File ID: BFB1441.D BFB Injection Date: 03/14/2017

Instrument ID: A3UX17 BFB Injection Time: 10:32

Analysis Batch No.: 270478

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.4	
75	30.0 - 60.0 % of mass 95	50.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	50.0 - 120.00 % of mass 95	86.8	
175	5.0 - 9.0 % of mass 174	5.8	(6.7) 1
176	95.0 - 101.0 % of mass 174	83.6	(96.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-270478/2	UXR7237.D	03/14/2017	10:59
	CCV 240-270478/3	UXR7238.D	03/14/2017	11:22
	LCS 240-270478/4	UXR7239.D	03/14/2017	11:44
	MB 240-270478/6	UXR7241.D	03/14/2017	12:29
MRC-MW44A-030817	240-76517-2	UXR7242.D	03/14/2017	14:06
TB-030817	240-76517-1	UXR7250.D	03/14/2017	17:03
MRC-MW76A-030817	240-76517-4	UXR7251.D	03/14/2017	17:26
MRC-MW76B-030817	240-76517-5	UXR7252.D	03/14/2017	17:48
MRC-MW44A-030817 MS	240-76517-2 MS	UXR7262.D	03/14/2017	21:31
MRC-MW44A-030817 MSD	240-76517-2 MSD	UXR7263.D	03/14/2017	21:53

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Lab Sample ID: CCVIS 240-270478/2 Calibration Date: 03/14/2017 10:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7237.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.2953	0.1000	0.0120	0.0100	20.2*	20.0
Chloromethane	Ave	0.3842	0.3419	0.1000	0.00890	0.0100	-11.0	20.0
Vinyl chloride	Ave	0.3634	0.3751	0.1000	0.0103	0.0100	3.2	20.0
Butadiene	Ave	0.3274	0.3411		0.0104	0.0100	4.2	20.0
Bromomethane	Qua		0.0658	0.0500	0.00465	0.0100	-53.5*	20.0
Chloroethane	Ave	0.1810	0.0996	0.0500	0.00551	0.0100	-44.9*	20.0
Dichlorofluoromethane	Ave	0.3880	0.2575		0.00663	0.0100	-33.7*	20.0
Trichlorofluoromethane	Ave	0.2893	0.2975	0.1000	0.0103	0.0100	2.8	20.0
Ethyl ether	Ave	0.2178	0.2192		0.0101	0.0100	0.6	20.0
Acrolein	Ave	0.0342	0.0335		0.0490	0.0500	-1.9	50.0
1,1-Dichloroethene	Ave	0.2474	0.2495	0.1000	0.0101	0.0100	0.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1713	0.1903	0.0500	0.0111	0.0100	11.1	20.0
Acetone	Qua		0.0885	0.0100	0.0271	0.0200	35.6	50.0
Iodomethane	Ave	0.3952	0.3781		0.00957	0.0100	-4.3	20.0
Carbon disulfide	Ave	0.7514	0.7378	0.1000	0.00982	0.0100	-1.8	20.0
3-Chloro-1-propene	Ave	0.1572	0.1596		0.0102	0.0100	1.5	20.0
Methyl acetate	Ave	0.1709	0.1732	0.1000	0.0507	0.0500	1.4	20.0
Methylene Chloride	Lin1		0.2851	0.1000	0.0101	0.0100	1.1	50.0
2-Methyl-2-propanol	Ave	0.0219	0.0214		0.0976	0.100	-2.4	50.0
Acrylonitrile	Ave	0.0866	0.0912		0.105	0.100	5.4	20.0
Methyl tert-butyl ether	Ave	0.7768	0.7896	0.1000	0.0102	0.0100	1.6	20.0
trans-1,2-Dichloroethene	Ave	0.2743	0.2699	0.1000	0.00984	0.0100	-1.6	20.0
Hexane	Ave	0.0711	0.0798		0.0112	0.0100	12.2	20.0
1,1-Dichloroethane	Ave	0.4617	0.4618	0.2000	0.0100	0.0100	0.0	20.0
Vinyl acetate	Ave	0.4750	0.4641		0.00977	0.0100	-2.3	50.0
2,2-Dichloropropane	Ave	0.2957	0.2918		0.00987	0.0100	-1.3	20.0
cis-1,2-Dichloroethene	Ave	0.3088	0.3065	0.1000	0.00993	0.0100	-0.7	20.0
2-Butanone (MEK)	Lin1		0.1080	0.0100	0.0258	0.0200	29.2*	20.0
Chlorobromomethane	Ave	0.1403	0.1398		0.00996	0.0100	-0.4	20.0
Tetrahydrofuran	Ave	0.0716	0.0742		0.0207	0.0200	3.6	20.0
Chloroform	Ave	0.4597	0.4582	0.2000	0.00997	0.0100	-0.3	20.0
1,1,1-Trichloroethane	Ave	0.3714	0.3727	0.1000	0.0100	0.0100	0.4	20.0
Cyclohexane	Ave	0.4163	0.4594	0.1000	0.0110	0.0100	10.4	20.0
1,1-Dichloropropene	Ave	0.3656	0.3753		0.0103	0.0100	2.7	20.0
Carbon tetrachloride	Ave	0.3099	0.3383	0.1000	0.0109	0.0100	9.2	20.0
Isobutyl alcohol	Lin1		0.0098		0.249	0.250	-0.3	20.0
Benzene	Ave	1.113	1.101	0.5000	0.00989	0.0100	-1.1	20.0
1,2-Dichloroethane	Ave	0.3584	0.3658	0.1000	0.0102	0.0100	2.0	20.0
n-Heptane	Ave	0.0723	0.0820		0.0113	0.0100	13.4	20.0
Trichloroethene	Ave	0.2960	0.3010	0.1500	0.0102	0.0100	1.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Lab Sample ID: CCVIS 240-270478/2 Calibration Date: 03/14/2017 10:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7237.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4392	0.4894	0.1000	0.0111	0.0100	11.4	20.0
1,2-Dichloropropane	Ave	0.2548	0.2505	0.1000	0.00983	0.0100	-1.7	20.0
1,4-Dioxane	Lin1		0.0023		0.154	0.200	-23.0	50.0
Dibromomethane	Ave	0.1597	0.1570		0.00983	0.0100	-1.7	20.0
Dichlorobromomethane	Ave	0.3206	0.3195	0.1500	0.00996	0.0100	-0.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1371	0.1397		0.0204	0.0200	1.9	20.0
cis-1,3-Dichloropropene	Ave	0.4019	0.3968	0.1500	0.00987	0.0100	-1.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2173	0.2238	0.0500	0.0206	0.0200	3.0	20.0
Toluene	Ave	1.633	1.623	0.4000	0.00993	0.0100	-0.7	20.0
trans-1,3-Dichloropropene	Ave	0.4764	0.4823	0.1000	0.0101	0.0100	1.2	20.0
Ethyl methacrylate	Ave	0.4170	0.4341		0.0104	0.0100	4.1	20.0
1,1,2-Trichloroethane	Ave	0.3011	0.3014	0.1000	0.0100	0.0100	0.0	20.0
Tetrachloroethene	Ave	0.3154	0.3237	0.1500	0.0103	0.0100	2.6	20.0
1,3-Dichloropropane	Ave	0.5470	0.5423		0.00991	0.0100	-0.9	20.0
2-Hexanone	Ave	0.1919	0.2015	0.0500	0.0210	0.0200	5.0	20.0
Chlorodibromomethane	Ave	0.3219	0.3239		0.0101	0.0100	0.6	20.0
Ethylene Dibromide	Ave	0.3021	0.3050		0.0101	0.0100	0.9	20.0
Chlorobenzene	Ave	1.055	1.065	0.3000	0.0101	0.0100	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3607	0.3546		0.00983	0.0100	-1.7	20.0
Ethylbenzene	Ave	0.5763	0.5888		0.0102	0.0100	2.2	20.0
m-Xylene & p-Xylene	Ave	0.7077	0.7086		0.0100	0.0100	0.1	20.0
o-Xylene	Ave	0.7115	0.7176		0.0101	0.0100	0.9	20.0
Styrene	Ave	1.134	1.150	0.3000	0.0101	0.0100	1.4	20.0
Bromoform	Ave	0.2079	0.2105	0.1000	0.0101	0.0100	1.2	20.0
Isopropylbenzene	Ave	1.834	1.885	0.1000	0.0103	0.0100	2.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7204	0.7203	0.3000	0.0100	0.0100	-0.0	20.0
Bromobenzene	Ave	0.8570	0.8359		0.00975	0.0100	-2.5	20.0
1,2,3-Trichloropropane	Ave	0.2505	0.2517		0.0100	0.0100	0.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1901	0.1886		0.00992	0.0100	-0.8	20.0
N-Propylbenzene	Ave	0.9675	0.9290		0.00960	0.0100	-4.0	20.0
2-Chlorotoluene	Ave	0.8153	0.8357		0.0103	0.0100	2.5	20.0
1,3,5-Trimethylbenzene	Ave	2.782	2.811		0.0101	0.0100	1.0	20.0
4-Chlorotoluene	Ave	0.8690	0.8636		0.00994	0.0100	-0.6	20.0
tert-Butylbenzene	Ave	2.485	2.491		0.0100	0.0100	0.2	20.0
1,2,4-Trimethylbenzene	Ave	2.918	2.914		0.00999	0.0100	-0.1	20.0
sec-Butylbenzene	Ave	3.504	3.543		0.0101	0.0100	1.1	20.0
1,3-Dichlorobenzene	Ave	1.679	1.636	0.6000	0.00974	0.0100	-2.6	20.0
4-Isopropyltoluene	Ave	2.967	3.026		0.0102	0.0100	2.0	20.0
1,4-Dichlorobenzene	Ave	1.730	1.680	0.5000	0.00971	0.0100	-2.9	20.0
n-Butylbenzene	Ave	2.551	2.548		0.00999	0.0100	-0.1	20.0
1,2-Dichlorobenzene	Ave	1.580	1.569	0.4000	0.00993	0.0100	-0.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Lab Sample ID: CCVIS 240-270478/2 Calibration Date: 03/14/2017 10:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7237.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1307	0.1362	0.0500	0.0104	0.0100	4.2	50.0
1,2,4-Trichlorobenzene	Ave	1.016	0.9412	0.2000	0.00927	0.0100	-7.3	50.0
Hexachlorobutadiene	Ave	0.4052	0.3714		0.00917	0.0100	-8.3	20.0
Naphthalene	Ave	2.455	2.273		0.00926	0.0100	-7.4	50.0
1,2,3-Trichlorobenzene	Ave	0.9217	0.8336		0.00904	0.0100	-9.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2462	0.2197		0.00893	0.0100	-10.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3067	0.2727		0.00889	0.0100	-11.1	20.0
Toluene-d8 (Surr)	Ave	1.418	1.272		0.00897	0.0100	-10.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5202	0.4547		0.00874	0.0100	-12.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Lab Sample ID: CCV 240-270478/3 Calibration Date: 03/14/2017 11:22

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 18:21

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 20:12

Lab File ID: UXR7238.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0258	0.0258		0.100	0.100	0.0	20.0
Isopropyl ether	Ave	0.2431	0.2416		0.00994	0.0100	-0.6	20.0
2-Chloro-1,3-butadiene	Ave	0.3997	0.3913		0.00979	0.0100	-2.1	20.0
Tert-butyl ethyl ether	Ave	0.7593	0.7371		0.00971	0.0100	-2.9	20.0
Ethyl acetate	Ave	0.2181	0.2116		0.0194	0.0200	-3.0	50.0
Propionitrile	Ave	0.0305	0.0324		0.106	0.100	6.4	20.0
Methacrylonitrile	Ave	0.1509	0.1490		0.0987	0.100	-1.3	20.0
Tert-amyl methyl ether	Ave	0.7356	0.7325		0.00996	0.0100	-0.4	20.0
n-Butanol	Ave	0.0089	0.0068		0.190	0.250	-24.1*	20.0
Ethyl acrylate	Ave	0.2629	0.2557		0.00973	0.0100	-2.7	20.0
Methyl methacrylate	Ave	0.1992	0.1977		0.0198	0.0200	-0.8	20.0
2-Nitropropane	Ave	0.0544	0.0553		0.0204	0.0200	1.8	20.0
n-Butyl acetate	Ave	0.2052	0.1948		0.00949	0.0100	-5.1	20.0
1-Chlorohexane	Ave	0.4784	0.4706		0.00984	0.0100	-1.6	20.0
Cyclohexanone	Ave	0.0227	0.0157		0.0693	0.100	-30.7*	20.0
Pentachloroethane	Lin1		0.2072		0.0202	0.0200	1.1	
1,2,3-Trimethylbenzene	Ave	2.890	2.759		0.00955	0.0100	-4.5	20.0
Benzyl chloride	Lin1		0.2472		0.00913	0.0100	-8.7	
1,3,5-Trichlorobenzene	Ave	1.062	1.005		0.00947	0.0100	-5.3	20.0
2-Methylnaphthalene	Ave	1.514	1.190		0.0157	0.0200	-21.4*	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Sample No.: STD8260 240-270112/4 Date Analyzed: 03/10/2017 16:29

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXR7198.D Heated Purge: (Y/N) N

Calibration ID: 38794

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1220460	5.76	889295	8.47	485235	10.72
UPPER LIMIT		2440920	6.26	1778590	8.97	970470	11.22
LOWER LIMIT		610230	5.26	444648	7.97	242618	10.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-270112/8		1165755	5.76	841337	8.47	457147	10.72
ICV 240-270112/15		1086377	5.76	759076	8.47	406958	10.72
CCVIS 240-270478/2		1057140	5.76	765918	8.47	414469	10.72

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Sample No.: CCVIS 240-270478/2 Date Analyzed: 03/14/2017 10:59

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXR7237.D Heated Purge: (Y/N) N

Calibration ID: 38796

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1057140	5.76	765918	8.47	414469	10.72
UPPER LIMIT		2114280	6.26	1531836	8.97	828938	11.22
LOWER LIMIT		528570	5.26	382959	7.97	207235	10.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-270478/3		1069902	5.76	759726	8.47	395630	10.72
LCS 240-270478/4		1085669	5.76	774074	8.47	428743	10.72
MB 240-270478/6		1030712	5.76	723679	8.47	376905	10.72
240-76517-2	MRC-MW44A-030817	1000336	5.76	684364	8.47	364384	10.72
240-76517-1	TB-030817	985838	5.76	695884	8.47	355435	10.72
240-76517-4	MRC-MW76A-030817	989371	5.76	699246	8.47	367897	10.72
240-76517-5	MRC-MW76B-030817	988697	5.76	692507	8.47	358064	10.72
240-76517-2 MS	MRC-MW44A-030817 MS	1014105	5.76	731419	8.47	388442	10.72
240-76517-2 MSD	MRC-MW44A-030817 MSD	1043978	5.76	752876	8.47	406619	10.72

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Instrument ID: A3UX17 Start Date: 03/10/2017 15:12

Analysis Batch Number: 270112 End Date: 03/10/2017 20:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-270112/1		03/10/2017 15:12	1	BFB1439.D	DB-624 0.18(mm)
STD8260 240-270112/2 IC		03/10/2017 15:44	1	UXR7196.D	DB-624 0.18(mm)
STD8260 240-270112/3 IC		03/10/2017 16:07	1	UXR7197.D	DB-624 0.18(mm)
STD8260 240-270112/4 ICIS		03/10/2017 16:29	1	UXR7198.D	DB-624 0.18(mm)
STD8260 240-270112/5 IC		03/10/2017 16:52	1	UXR7199.D	DB-624 0.18(mm)
STD8260 240-270112/6 IC		03/10/2017 17:14	1	UXR7200.D	DB-624 0.18(mm)
STD8260 240-270112/7 IC		03/10/2017 17:36	1	UXR7201.D	DB-624 0.18(mm)
ICV 240-270112/8		03/10/2017 17:59	1	UXR7202.D	DB-624 0.18(mm)
STDA9 240-270112/9 IC		03/10/2017 18:21	1	UXR7203.D	DB-624 0.18(mm)
STDA9 240-270112/10 IC		03/10/2017 18:44	1	UXR7204.D	DB-624 0.18(mm)
STDA9 240-270112/11 IC		03/10/2017 19:06	1	UXR7205.D	DB-624 0.18(mm)
STDA9 240-270112/12 IC		03/10/2017 19:28	1	UXR7206.D	DB-624 0.18(mm)
STDA9 240-270112/13 IC		03/10/2017 19:50	1	UXR7207.D	DB-624 0.18(mm)
STDA9 240-270112/14 IC		03/10/2017 20:12	1	UXR7208.D	DB-624 0.18(mm)
ICV 240-270112/15		03/10/2017 20:34	1	UXR7209.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76517-1

SDG No.:

Instrument ID: A3UX17 Start Date: 03/14/2017 10:32

Analysis Batch Number: 270478 End Date: 03/14/2017 21:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-270478/1		03/14/2017 10:32	1	BFB1441.D	DB-624 0.18(mm)
CCVIS 240-270478/2		03/14/2017 10:59	1	UXR7237.D	DB-624 0.18(mm)
CCV 240-270478/3		03/14/2017 11:22	1	UXR7238.D	DB-624 0.18(mm)
LCS 240-270478/4		03/14/2017 11:44	1	UXR7239.D	DB-624 0.18(mm)
ZZZZZ		03/14/2017 12:07	1		DB-624 0.18(mm)
MB 240-270478/6		03/14/2017 12:29	1	UXR7241.D	DB-624 0.18(mm)
240-76517-2		03/14/2017 14:06	1	UXR7242.D	DB-624 0.18(mm)
ZZZZZ		03/14/2017 14:28	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 14:51	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 15:13	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 15:35	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 15:57	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 16:19	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 16:41	1		DB-624 0.18(mm)
240-76517-1		03/14/2017 17:03	1	UXR7250.D	DB-624 0.18(mm)
240-76517-4		03/14/2017 17:26	1	UXR7251.D	DB-624 0.18(mm)
240-76517-5		03/14/2017 17:48	1	UXR7252.D	DB-624 0.18(mm)
ZZZZZ		03/14/2017 18:11	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 18:33	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 18:56	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 19:18	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 19:40	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 20:02	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 20:24	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 20:46	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 21:08	1		DB-624 0.18(mm)
240-76517-2 MS		03/14/2017 21:31	1	UXR7262.D	DB-624 0.18(mm)
240-76517-2 MSD		03/14/2017 21:53	1	UXR7263.D	DB-624 0.18(mm)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW44A-030817	240-76517-2	84
	MB 200-114882/1-A	85
	LCS 200-114882/2-A	89
	LCSD 200-114882/3-A	87

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24334_02.D

Lab ID: LCS 200-114882/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	0.200	0.172 J	86	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24334_03.D

Lab ID: LCSD 200-114882/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	0.200	0.185 J	92	7	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Lab File ID: Z24334_04.D Lab Sample ID: MB 200-114882/1-A

Matrix: Water Date Extracted: 03/13/2017 19:00

Instrument ID: CHZ.i Date Analyzed: 03/15/2017 13:45

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-114882/2-A	Z24334_02.D	03/15/2017 13:10
	LCSD 200-114882/3-A	Z24334_03.D	03/15/2017 13:27
MRC-MW44A-030817	240-76517-2	Z24334_05.D	03/15/2017 14:02

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76517-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-114882/1-A

Matrix: Water | Lab File ID: Z24334_04.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 03/13/2017 19:00

Sample wt/vol: 100(mL) | Date Analyzed: 03/15/2017 13:45

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 114936 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	85		46-130

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Lab File ID: Z24230_01.D BFB Injection Date: 03/08/2017

Instrument ID: CHZ.i BFB Injection Time: 10:08

Analysis Batch No.: 114713

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 80.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.3	
175	5.0 - 9.0 % of mass 174	4.9	(7.2) 1
176	>95.0 but <101.0 % of mass 174	66.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-114713/2	Z24230_02.D	03/08/2017	10:20
	IC 200-114713/3	Z24230_03.D	03/08/2017	10:37
	IC 200-114713/4	Z24230_04.D	03/08/2017	10:54
	ICIS 200-114713/5	Z24230_05.D	03/08/2017	11:12
	IC 200-114713/6	Z24230_06.D	03/08/2017	11:29
	IC 200-114713/7	Z24230_07.D	03/08/2017	11:46
	IC 200-114713/8	Z24230_08.D	03/08/2017	12:03
	ICV 200-114713/9	Z24230_09.D	03/08/2017	12:21
	CCVL 200-114713/10	Z24230_10.D	03/08/2017	13:29
	CCVL 200-114936/1	Z24334_01.D	03/15/2017	12:53
	LCS 200-114882/2-A	Z24334_02.D	03/15/2017	13:10
	LCSD 200-114882/3-A	Z24334_03.D	03/15/2017	13:27
	MB 200-114882/1-A	Z24334_04.D	03/15/2017	13:45
MRC-MW44A-030817	240-76517-2	Z24334_05.D	03/15/2017	14:02
	CCV 200-114936/15	Z24334_15.D	03/15/2017	16:54

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-76517-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-76517-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	2773 110705	6218 242998	14480	27995	48146	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	134256 141434	151964 143621	134009	136068	115570	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Lab Sample ID: ICV 200-114713/9 Calibration Date: 03/08/2017 12:21

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_09.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5752	0.0500	184	200	-7.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Lab Sample ID: CCVL 200-114713/10 Calibration Date: 03/08/2017 13:29

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_10.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7218	0.0500	11.6	10.0	15.6	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.5972	0.0500	495	500	-1.1	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Lab Sample ID: CCVL 200-114936/1 Calibration Date: 03/15/2017 12:53

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24334_01.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.4737	0.0500	7.58	10.0	-24.2	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6268	0.0500	519	500	3.8	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Lab Sample ID: CCV 200-114936/15 Calibration Date: 03/15/2017 16:54

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24334_15.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5721	0.0500	91.6	100	-8.4	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6138	0.0500	508	500	1.7	30.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Sample No.: ICIS 200-114713/5 Date Analyzed: 03/08/2017 11:12

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24230_05.D Heated Purge: (Y/N) N

Calibration ID: 36785

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224595	3.32				
UPPER LIMIT		336893	3.82				
LOWER LIMIT		112298	2.82				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-114713/9		202920	3.32				
CCVL 200-114713/10		249320	3.34				
CCVL 200-114936/1		273289	3.25				
LCS 200-114882/2-A		322868	3.27				
LCSD 200-114882/3-A		321926	3.28				
MB 200-114882/1-A		298605	3.25				
240-76517-2	MRC-MW44A-030817	316586	3.26				
CCV 200-114936/15		294855	3.26				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-114713/1		03/08/2017 10:08	1	Z24230_01.D	Rxi-5ms 0.25(mm)
IC 200-114713/2		03/08/2017 10:20	1	Z24230_02.D	Rxi-5ms 0.25(mm)
IC 200-114713/3		03/08/2017 10:37	1	Z24230_03.D	Rxi-5ms 0.25(mm)
IC 200-114713/4		03/08/2017 10:54	1	Z24230_04.D	Rxi-5ms 0.25(mm)
ICIS 200-114713/5		03/08/2017 11:12	1	Z24230_05.D	Rxi-5ms 0.25(mm)
IC 200-114713/6		03/08/2017 11:29	1	Z24230_06.D	Rxi-5ms 0.25(mm)
IC 200-114713/7		03/08/2017 11:46	1	Z24230_07.D	Rxi-5ms 0.25(mm)
IC 200-114713/8		03/08/2017 12:03	1	Z24230_08.D	Rxi-5ms 0.25(mm)
ICV 200-114713/9		03/08/2017 12:21	1	Z24230_09.D	Rxi-5ms 0.25(mm)
CCVL 200-114713/10		03/08/2017 13:29	1	Z24230_10.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 13:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:43	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:02	1		Rxi-5ms 0.25(mm)
CCV 200-114713/23		03/08/2017 17:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:07	1		Rxi-5ms 0.25(mm)
CCV 200-114713/37		03/08/2017 21:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:42	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/09/2017 00:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:17	1		Rxi-5ms 0.25(mm)
CCV 200-114713/48		03/09/2017 00:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:51	1		Rxi-5ms 0.25(mm)
CCV 200-114713/50		03/09/2017 01:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:34	1		Rxi-5ms 0.25(mm)
CCV 200-114713/54		03/09/2017 09:50	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/15/2017 12:53

Analysis Batch Number: 114936 End Date: 03/15/2017 19:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-114936/1		03/15/2017 12:53	1	Z24334_01.D	Rxi-5ms 0.25(mm)
LCS 200-114882/2-A		03/15/2017 13:10	1	Z24334_02.D	Rxi-5ms 0.25(mm)
LCSD 200-114882/3-A		03/15/2017 13:27	1	Z24334_03.D	Rxi-5ms 0.25(mm)
MB 200-114882/1-A		03/15/2017 13:45	1	Z24334_04.D	Rxi-5ms 0.25(mm)
240-76517-2		03/15/2017 14:02	1	Z24334_05.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 14:19	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 14:36	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 14:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 15:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 15:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 15:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 16:02	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 16:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 16:37	1		Rxi-5ms 0.25(mm)
CCV 200-114936/15		03/15/2017 16:54	1	Z24334_15.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 17:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 17:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 17:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 18:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 18:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 18:37	2.22		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 18:54	1.538		Rxi-5ms 0.25(mm)
CCV 200-114936/23		03/15/2017 19:11	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/22/2017 15:37

Analysis Batch Number: 115085 End Date: 03/23/2017 09:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-115085/3		03/22/2017 15:37	1	Z24401_03.D	Rxi-5ms 0.25(mm)
CCVL 200-115085/4		03/22/2017 15:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:12	1		Rxi-5ms 0.25(mm)
CCV 200-115085/17		03/22/2017 19:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:09	1		Rxi-5ms 0.25(mm)
CCV 200-115085/31		03/22/2017 23:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:50	1		Rxi-5ms 0.25(mm)
CCV 200-115085/37		03/23/2017 01:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 08:57	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 09:13	2		Rxi-5ms 0.25(mm)
CCV 200-115085/40		03/23/2017 09:30	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-76517-1

SDG No.:

Batch Number: 114882 Batch Start Date: 03/13/17 19:00 Batch Analyst: Keith, Robert C

Batch Method: 3535A Batch End Date: 03/13/17 19:53

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00025		
MB 200-114882/1		3535A, 522		100 mL	2000 uL		100 uL		
LCS 200-114882/2		3535A, 522		100 mL	2000 uL	10 uL	100 uL		
LCSD 200-114882/3		3535A, 522		100 mL	2000 uL	10 uL	100 uL		
240-76517-D-2	MRC-MW44A-030817	3535A, 522	T	100 mL	2000 uL		100 uL		

Batch Notes	
Acid ID	1004720
Acid Name	HCl
First End time	1953
Analyst ID - Reagent Drop Witness	MAP
Solvent Lot #	1015054
Solvent Name	MeCl2
SPE Cartridge ID	8088705
First Start time	1900

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	13CDCB #
MRC-MW44A-030817	240-76517-2	44
	MB 680-472187/5-A	85
	LCS 680-472187/6-A	84
MRC-MW44A-030817 MS	240-76517-2 MS	57
MRC-MW44A-030817 MSD	240-76517-2 MSD	40

	QC LIMITS
13CDCB = Decachlorobiphenyl-13C12	25-113

Column to be used to flag recovery values

FORM II 680

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc1606.D

Lab ID: LCS 680-472187/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	5.06	84	62-130	
Hexachlorobiphenyl	4.00	3.44	86	62-130	
Nonachlorobiphenyl	10.0	16.0	160	70-195	
Octachlorobiphenyl	6.00	5.18	86	64-130	
Monochlorobiphenyl	2.00	1.57	78	42-130	
DCB Decachlorobiphenyl	10.0	8.33	83	59-130	
Dichlorobiphenyl	2.00	1.66	83	49-130	
Pentachlorobiphenyl	4.00	3.35	84	63-130	
Tetrachlorobiphenyl	4.00	3.41	85	54-130	
Trichlorobiphenyl	2.00	1.68	84	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc1607.D

Lab ID: 240-76517-2 MS Client ID: MRC-MW44A-030817 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	5.98	0.030 U	3.48	58	62-130	F1
Hexachlorobiphenyl	3.99	0.015 U	2.26	57	62-130	F1
Nonachlorobiphenyl	9.97	0.048 U	10.6	106	70-195	
Octachlorobiphenyl	5.98	0.037 U	3.59	60	64-130	F1
Monochlorobiphenyl	1.99	0.0055 U	1.03	52	42-130	
DCB Decachlorobiphenyl	9.97	0.069 U	5.46	55	59-130	F1
Dichlorobiphenyl	1.99	0.0053 U	1.12	56	49-130	
Pentachlorobiphenyl	3.99	0.014 U	2.36	59	63-130	F1
Tetrachlorobiphenyl	3.99	0.013 U	2.43	61	54-130	
Trichlorobiphenyl	1.99	0.0064 U	1.15	58	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc1608.D

Lab ID: 240-76517-2 MSD Client ID: MRC-MW44A-030817 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Heptachlorobiphenyl	5.60	2.47	44	34	40	62-130	F1
Hexachlorobiphenyl	3.73	1.66	44	31	40	62-130	F1
Nonachlorobiphenyl	9.33	7.79	84	30	40	70-195	
Octachlorobiphenyl	5.60	2.56	46	34	40	64-130	F1
Monochlorobiphenyl	1.87	0.708	38	37	40	42-130	F1
DCB Decachlorobiphenyl	9.33	4.04	43	30	40	59-130	F1
Dichlorobiphenyl	1.87	0.735	39	41	40	49-130	F1 F2
Pentachlorobiphenyl	3.73	1.66	44	35	40	63-130	F1
Tetrachlorobiphenyl	3.73	1.55	42	44	40	54-130	F1 F2
Trichlorobiphenyl	1.87	0.741	40	43	40	51-130	F1 F2

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Lab File ID: xc1605.D Lab Sample ID: MB 680-472187/5-A

Matrix: Water Date Extracted: 03/13/2017 15:39

Instrument ID: CMSX Date Analyzed: 03/16/2017 12:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-472187/6-A	xc1606.D	03/16/2017 13:09
MRC-MW44A-030817 MS	240-76517-2 MS	xc1607.D	03/16/2017 13:38
MRC-MW44A-030817 MSD	240-76517-2 MSD	xc1608.D	03/16/2017 14:08
MRC-MW44A-030817	240-76517-2	xc1610.D	03/16/2017 15:06

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-76517-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-472187/5-A

Matrix: Water | Lab File ID: xc1605.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 03/13/2017 15:39

Sample wt/vol: 1000(mL) | Date Analyzed: 03/16/2017 12:40

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 472745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.0054	U	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0065	U	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	85		25-113

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Lab File ID: xc0102.D DFTPP Injection Date: 03/01/2017

Instrument ID: CMSX DFTPP Injection Time: 09:09

Analysis Batch No.: 470826

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	59.1
197	Less than 1 % of mass 198	0.5
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	5.9
275	10 - 30% of mass 198	28.9
365	Greater than 1% of mass 198	5.0
441	Present but less than mass 443	15.0 (78.2) 2
442	Greater than 40% of mass 198	94.1
443	17 - 23% of mass 442	19.1 (20.3) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 680-470826/5	xc0105.D	03/01/2017	10:40
	IC 680-470826/6	xc0106.D	03/01/2017	11:09
	IC 680-470826/7	xc0107.D	03/01/2017	11:38
	IC 680-470826/8	xc0108.D	03/01/2017	12:07
	ICISAV 680-470826/18	xc0109.D	03/01/2017	12:36
	ICV 680-470826/9	xc0110.D	03/01/2017	13:05

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-76517-1 Analy Batch No.: 470826

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2017 10:40 Calibration End Date: 03/01/2017 12:36 Calibration ID: 50854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-470826/8	xc0108.D
Level 2	IC 680-470826/7	xc0107.D
Level 3	ICISAV 680-470826/18	xc0109.D
Level 4	IC 680-470826/6	xc0106.D
Level 5	IC 680-470826/5	xc0105.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8416	0.7627	0.7274	0.7606	0.8593	Ave		0.7903				7.2		20.0			
Dichlorobiphenyl	0.5708	0.5190	0.5508	0.5792	0.6622	Ave		0.5764				9.2		20.0			
Trichlorobiphenyl	0.4207	0.3956	0.3850	0.4065	0.4645	Ave		0.4144				7.5		20.0			
PCB-104			0.3635			Ave		0.3635						30.0			
Tetrachlorobiphenyl	0.3178	0.2888	0.2922	0.3061	0.3378	Ave		0.3085				6.5		20.0			
Pentachlorobiphenyl	0.2712	0.2483	0.2566	0.2684	0.2960	Ave		0.2681				6.8		20.0			
PCB-77			0.4422			Ave		0.4422						30.0			
Hexachlorobiphenyl	0.2740	0.2570	0.2623	0.2761	0.2992	Ave		0.2737				6.0		20.0			
Heptachlorobiphenyl	0.2480	0.2272	0.2314	0.2438	0.2678	Ave		0.2436				6.6		20.0			
Octachlorobiphenyl	0.2242	0.2042	0.2047	0.2209	0.2397	Ave		0.2187				6.8		20.0			
PCB-208			0.0838			Ave		0.0838						30.0			
Nonachlorobiphenyl			0.0638			Ave		0.0437				4.1		20.0			
DCB Decachlorobiphenyl	0.0450	0.0411	0.0430	0.0436	0.0457	Ave		0.0437				4.1		20.0			
gamma-BHC-13C6 (Surr)	0.1735	0.1703	0.1703	0.1835	0.1495	Ave		0.1694				7.3		50.0			
Decachlorobiphenyl-13C12	0.0541	0.0574	0.0574	0.0574	0.0609	Ave		0.0574				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Savannah Job No.: 240-76517-1 Analy Batch No.: 470826

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2017 10:40 Calibration End Date: 03/01/2017 12:36 Calibration ID: 50854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-470826/8	xc0108.D
Level 2	IC 680-470826/7	xc0107.D
Level 3	ICISAV 680-470826/18	xc0109.D
Level 4	IC 680-470826/6	xc0106.D
Level 5	IC 680-470826/5	xc0105.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Monochlorobiphenyl	CRY	Ave	3151	13342	26104	56643	163189	0.100	0.500	1.00	2.00	5.00
Dichlorobiphenyl	CRY	Ave	2137	9079	19768	43138	125759	0.100	0.500	1.00	2.00	5.00
Trichlorobiphenyl	CRY	Ave	1575	6919	13816	30274	88206	0.100	0.500	1.00	2.00	5.00
PCB-104	CRY	Ave			26087					2.00		
Tetrachlorobiphenyl	CRY	Ave	2380	10102	20971	45599	128289	0.200	1.00	2.00	4.00	10.0
Pentachlorobiphenyl	CRY	Ave	2031	8685	18421	39972	112408	0.200	1.00	2.00	4.00	10.0
PCB-77	CRY	Ave			31741					2.00		
Hexachlorobiphenyl	CRY	Ave	2052	8992	18825	41121	113658	0.200	1.00	2.00	4.00	10.0
Heptachlorobiphenyl	CRY	Ave	2786	11920	24915	54470	152551	0.300	1.50	3.00	6.00	15.0
Octachlorobiphenyl	CRY	Ave	2518	10716	22044	49361	136549	0.300	1.50	3.00	6.00	15.0
PCB-208	CRY	Ave			12030					4.00		
Nonachlorobiphenyl	CRY	Ave			11445					5.00		
DCB Decachlorobiphenyl	CRY	Ave	842	3591	7713	16249	43364	0.500	2.50	5.00	10.0	25.0
gamma-BHC-13C6 (Surr)	CRY	Ave	1299	5958	12225	27332	56781	0.200	1.00	2.00	4.00	10.0
Decachlorobiphenyl-13C12	CRY	Ave	1013	5020	10297	21381	46261	0.500	2.50	5.00	10.0	20.0

Curve Type Legend:
Ave = Average ISTD

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Lab Sample ID: ICV 680-470826/9 Calibration Date: 03/01/2017 13:05

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc0110.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.6886		0.871	1.00	-12.9	20.0
Dichlorobiphenyl	Ave	0.5764	0.4994		0.866	1.00	-13.4	20.0
Trichlorobiphenyl	Ave	0.4144	0.3972		0.958	1.00	-4.2	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.2959		1.92	2.00	-4.1	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2467		1.84	2.00	-8.0	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2514		1.84	2.00	-8.2	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2286		2.82	3.00	-6.2	20.0
Octachlorobiphenyl	Ave	0.2187	0.2104		2.89	3.00	-3.8	20.0
Nonachlorobiphenyl	Ave	0.0638	0.0837		7.66	4.00	31.2*	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0433		4.95	5.00	-0.9	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0588		5.12	5.00	2.4	20.0

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Lab File ID: xc1601.D DFTPP Injection Date: 03/16/2017

Instrument ID: CMSX DFTPP Injection Time: 10:39

Analysis Batch No.: 472745

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	58.1
197	Less than 1 % of mass 198	0.5
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.6
275	10 - 30% of mass 198	29.9
365	Greater than 1% of mass 198	5.0
441	Present but less than mass 443	16.0 (84.9) 2
442	Greater than 40% of mass 198	99.1
443	17 - 23% of mass 442	18.8 (19.0) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-472745/3	xc1603.D	03/16/2017	11:40
	CCVIS 680-472745/4	xc1604.D	03/16/2017	12:11
	MB 680-472187/5-A	xc1605.D	03/16/2017	12:40
	LCS 680-472187/6-A	xc1606.D	03/16/2017	13:09
MRC-MW44A-030817 MS	240-76517-2 MS	xc1607.D	03/16/2017	13:38
MRC-MW44A-030817 MSD	240-76517-2 MSD	xc1608.D	03/16/2017	14:08
MRC-MW44A-030817	240-76517-2	xc1610.D	03/16/2017	15:06
	CCV 680-472745/23	xc1624.D	03/16/2017	21:50

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Lab Sample ID: CCVIS 680-472745/4 Calibration Date: 03/16/2017 12:11

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc1604.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.6879		0.870	1.00	-13.0	20.0
Dichlorobiphenyl	Ave	0.5764	0.5253		0.911	1.00	-8.9	20.0
Trichlorobiphenyl	Ave	0.4144	0.3650		0.881	1.00	-11.9	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.2763		1.79	2.00	-10.5	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2424		1.81	2.00	-9.6	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2465		1.80	2.00	-9.9	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2175		2.68	3.00	-10.7	20.0
Octachlorobiphenyl	Ave	0.2187	0.1993		2.73	3.00	-8.9	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0383		4.38	5.00	-12.4	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0521		4.53	5.00	-9.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Lab Sample ID: CCV 680-472745/23 Calibration Date: 03/16/2017 21:50

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc1624.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.7532		0.953	1.00	-4.7	20.0
Dichlorobiphenyl	Ave	0.5764	0.5550		0.963	1.00	-3.7	20.0
Trichlorobiphenyl	Ave	0.4144	0.3938		0.950	1.00	-5.0	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.2983		1.93	2.00	-3.3	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2570		1.92	2.00	-4.1	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2569		1.88	2.00	-6.2	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2287		2.82	3.00	-6.1	20.0
Octachlorobiphenyl	Ave	0.2187	0.2073		2.84	3.00	-5.2	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0399		4.57	5.00	-8.6	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0539		4.69	5.00	-6.2	20.0

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Instrument ID: CMSX Calibration Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calibration End Date: 03/01/2017 12:36

Calibration ID: 50854

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		26910	10.11	27530	16.20		
UPPER LIMIT		40365	10.61	41295	16.70		
LOWER LIMIT		13455	9.61	13765	15.70		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-470826/9		27104	10.11	28137	16.20		
CCVIS 680-472745/4		34636	10.11	39274	16.20		
MB 680-472187/5-A		30203	10.11	30117	16.20		
LCS 680-472187/6-A		29381	10.11	29542	16.20		
240-76517-2 MS	MRC-MW44A-030817 MS	27699	10.11	28858	16.20		
240-76517-2 MSD	MRC-MW44A-030817 MSD	29479	10.11	34054	16.20		
240-76517-2	MRC-MW44A-030817	26273	10.11	31177	16.20		
CCV 680-472745/23		32036	10.11	34742	16.20		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Sample No.: CCVIS 680-472745/4 Date Analyzed: 03/16/2017 12:11

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm)

Lab File ID (Standard): xc1604.D Heated Purge: (Y/N) N

Calibration ID: 50854

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		34636	10.11	39274	16.20		
UPPER LIMIT		45027	10.61	51056	16.70		
LOWER LIMIT		24245	9.61	27492	15.70		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-472187/5-A		30203	10.11	30117	16.20		
LCS 680-472187/6-A		29381	10.11	29542	16.20		
240-76517-2 MS	MRC-MW44A-030817 MS	27699	10.11	28858	16.20		
240-76517-2 MSD	MRC-MW44A-030817 MSD	29479	10.11	34054	16.20		
240-76517-2	MRC-MW44A-030817	26273	10.11	31177	16.20		
CCV 680-472745/23		32036	10.11	34742	16.20		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Instrument ID: CMSX Start Date: 03/01/2017 09:09

Analysis Batch Number: 470826 End Date: 03/01/2017 16:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 680-470826/2		03/01/2017 09:09	1	xc0102.D	HP-5MS 0.25(mm)
WDM 680-470826/3		03/01/2017 09:40	1		HP-5MS 0.25(mm)
IC 680-470826/5		03/01/2017 10:40	1	xc0105.D	HP-5MS 0.25(mm)
IC 680-470826/6		03/01/2017 11:09	1	xc0106.D	HP-5MS 0.25(mm)
IC 680-470826/7		03/01/2017 11:38	1	xc0107.D	HP-5MS 0.25(mm)
IC 680-470826/8		03/01/2017 12:07	1	xc0108.D	HP-5MS 0.25(mm)
ICISAV 680-470826/18		03/01/2017 12:36	1	xc0109.D	HP-5MS 0.25(mm)
ICV 680-470826/9		03/01/2017 13:05	1	xc0110.D	HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 13:34	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 14:03	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 14:32	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 15:01	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 15:30	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 15:59	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 16:28	1		HP-5MS 0.25(mm)
CCV 680-470826/17		03/01/2017 16:57	1		HP-5MS 0.25(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Instrument ID: CMSX Start Date: 03/16/2017 10:39

Analysis Batch Number: 472745 End Date: 03/16/2017 21:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 680-472745/1		03/16/2017 10:39	1	xc1601.D	HP-5MS 0.25(mm)
WDM 680-472745/3		03/16/2017 11:40	1	xc1603.D	HP-5MS 0.25(mm)
CCVIS 680-472745/4		03/16/2017 12:11	1	xc1604.D	HP-5MS 0.25(mm)
MB 680-472187/5-A		03/16/2017 12:40	1	xc1605.D	HP-5MS 0.25(mm)
LCS 680-472187/6-A		03/16/2017 13:09	1	xc1606.D	HP-5MS 0.25(mm)
240-76517-2 MS		03/16/2017 13:38	1	xc1607.D	HP-5MS 0.25(mm)
240-76517-2 MSD		03/16/2017 14:08	1	xc1608.D	HP-5MS 0.25(mm)
240-76517-2		03/16/2017 15:06	1	xc1610.D	HP-5MS 0.25(mm)
ZZZZZ		03/16/2017 15:35	1		HP-5MS 0.25(mm)
ZZZZZ		03/16/2017 16:04	1		HP-5MS 0.25(mm)
ZZZZZ		03/16/2017 16:33	1		HP-5MS 0.25(mm)
CCV 680-472745/23		03/16/2017 21:50	1	xc1624.D	HP-5MS 0.25(mm)

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Batch Number: 472187 Batch Start Date: 03/13/17 15:39 Batch Analyst: Simmons, Richard B

Batch Method: 680 Batch End Date: 03/14/17 09:43

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH	ResidualChloCheck
240-76517-G-2	MRC-MW44A-030817	680, 680	T			507.6 mL	0.5 mL	7 SU	N
MB 680-472187/5		680, 680				1000 mL	1 mL	7 SU	N
LCS 680-472187/6		680, 680				1000 mL	1 mL	7 SU	N
240-76517-F-2 MS	MRC-MW44A-030817	680, 680	T			501.4 mL	0.5 mL	7 SU	N
240-76517-F-2 MSD	MRC-MW44A-030817	680, 680	T	1040.1 g	504.3 g	535.8 mL	0.5 mL	7 SU	N

Lab Sample ID	Client Sample ID	Method Chain	Basis	680wkSPIKE 00108	680wkSURR-NEW 00016	680wkSURR-NEW 00017			
240-76517-G-2	MRC-MW44A-030817	680, 680	T		0.5 mL				
MB 680-472187/5		680, 680			1 mL				
LCS 680-472187/6		680, 680		1 mL		1 mL			
240-76517-F-2 MS	MRC-MW44A-030817	680, 680	T	0.5 mL		0.5 mL			
240-76517-F-2 MSD	MRC-MW44A-030817	680, 680	T	0.5 mL		0.5 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-76517-1

SDG No.:

Batch Number: 472187 Batch Start Date: 03/13/17 15:39 Batch Analyst: Simmons, Richard B

Batch Method: 680 Batch End Date: 03/14/17 09:43

Batch Notes	
Balance ID	23
Batch Comment	680 box M680-99
Concentration End Time	1251
Concentration Start Time	1211
Analyst ID - Concentration	RKL
Exchange Solvent ID	4969398
Exchange Solvent Name	Hexanes
Exchange Solvent Volume Used	1 mL
Extraction 1 End Time	0943
Extraction 1 Start Time	1539
pH Paper ID	4785212 4961266 4923424
Pipette ID	AA02G
Prep Solvent ID	4975501
Prep Solvent Name	MeCL2
Prep Solvent Volume Used	70 mL
Person's name who did the prep	RBS
Analyst ID - Reagent Drop Witness	CEW/RBS
Residual Chlorine Indicator ID	4852916
Analyst ID - Spike Analyst	RBS
Analyst ID - Spike Witness Analyst	CEW
Sufficient volume for MS/MSD?	Yes
Vial ID	84000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

VOA Calibration Calculations:

Initial Calibration 3/10/2017
Instrument A3UX17

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.5	71389	1140039	10	1.2524	1.2524
2	254652	1160506	10	1.0972	1.0972
5	643552	1183924	10	1.0872	1.0872
10	1304790	1220460	10	1.0691	1.0691
20	2629668	1231205	10	1.0679	1.0679
40	5219835	1184425	10	1.1018	1.1018
			Average	1.1126	1.1126
			Standard Deviation	0.0699	
			RSD	0.0628	
			%RSD	6.2833	6.3

Internal standard for benzene is fluorobenzene

Continuing Calibration 03/14/2017@ 10:59
Instrument A3UX17

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
10	1163708	1057140	10	1.1008	-1.0874826	1.101	-1.1

MRC Groundwater
SDG 240-76517-1

SAMPLE IDENTIFICATION	MRC-MW76A-030817
COMPOUND	Cyclohexane
COMPOUND AREA	37134
INTERNAL STANDARD AMOUNT (ng)	10
DILUTION FACTOR	1
INTERNAL STANDARD AREA	989371
AVERAGE RRF	0.4163
VOLUME OF SAMPLE	5
VOLUME OF EXTRACT	5.00
CONCENTRATION =	0.90 ug/L

SVOA Calibration Calculations:

Initial Calibration 3/8/2017
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.01	2773	226947	0.5	0.61094	0.6109
0.02	6218	251612	0.5	0.61782	0.6178
0.05	14480	218926	0.5	0.66141	0.6614
0.1	27995	224595	0.5	0.62323	0.6232
0.2	48146	200782	0.5	0.59948	0.5995
0.4	110705	227238	0.5	0.60897	0.609
0.8	242998	233784	0.5	0.64963	0.6496
			Average	0.62450	0.6245
			Standard Deviation	0.0227	
			RSD	0.0363	
			%RSD	3.63475	3.6

Continuing Calibration 03/15/2017 @ 16:54
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
0.1	33739	294855	0.5	0.5721	-8.386121	0.5721	-8.4

MRC Groundwater
SDG 240-76517-1

SAMPLE IDENTIFICATION	MRC-MW44A-030817	
COMPOUND	1,4-Dioxane	
COMPOUND AREA	92363	
INTERNAL STANDARD AMOUNT (ng)	0.5	
DILUTION FACTOR	1	
INTERNAL STANDARD AREA	316586	
AVERAGE RRF	0.6245	
VOLUME OF SAMPLE	0.1	
VOLUME OF EXTRACT	2.00	
CONCENTRATION =	4.67169	ug/L

PCB Calibration Calculations:

Initial Calibration 3/1/2017
Instrument CMSX

Monochlorobiphenyl

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.1	3151	28080	0.75	0.8416	0.8416
0.5	13342	26238	0.75	0.7627	0.7627
1	26104	26916	0.75	0.7274	0.7274
2	56643	27928	0.75	0.7606	0.7606
5	163189	28486	0.75	0.8593	0.8593
			Average	0.7903	0.7903
			Standard Deviation	0.0570	
			RSD	0.0721	
			%RSD	7.2129	7.2

Continuing Calibration 03/16/2017@ 21:50
Instrument CMSX

Monochlorobiphenyl

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
1	34888	34742	0.75	0.7532	-4.6076658	0.7532	-4.7

MRC Groundwater
SDG 240-76566-1

SAMPLE IDENTIFICATION	LCS 680-472187/6-A
COMPOUND	Monochlorobiphenyl
COMPOUND AREA	48781
INTERNAL STANDARD AMOUNT (ng)	0.75
DILUTION FACTOR	1
INTERNAL STANDARD AREA	29542
AVERAGE RRF	0.7903
VOLUME OF SAMPLE	1
VOLUME OF EXTRACT	1.00
CONCENTRATION =	1.56704 ug/L

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **APRIL13, 2017**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs, 1,4-DIOXANE, PCBs**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC) GROUNDWATER
SDG 240-76566-1

SAMPLES: 5/Aqueous
VOCs

MRC-DUP01-030907 MRC-MW103A-030907 MRC-MW103B-030907
MRC-MW58A-030907 MRC-MW94B-030907

1/Aqueous
1,4-Dioxane

MRC-MW58A-030917

3/Aqueous
PCB

MRC-DUP01-030907 MRC-MW103A-030907 MRC-MW103B-030907

1/Trip Blank

TB-030917

Overview

The sample set for LMC-MRC Groundwater, SDG 240-76566-1 consisted of five (5) aqueous environmental samples and one (1) trip blank. Samples MRC-MW58A-030907, MRC-MW94B-030917 and TB-030917 were analyzed for volatile organic carbons (VOCs). Samples MRC-DUP01-030907, MRC-MW103A-030907 and MRC-MW103B-030907 were analyzed for select VOCs, and polychlorinated biphenyls (PCBs). Sample MRC-MW58A-030917 was also analyzed for 1,4-Dioxane. One (1) field duplicate sample pair (MRC-MW103A-030907 / MRC-DUP01-030907) was included in this SDG.

The samples were collected by Tetra Tech, Inc. on March 9, 2017 and analyzed by TestAmerica – Canton, TestAmerica-Burlington and TestAmerica-Savannah. All analyses were conducted in accordance with SW-846 Method 8260C and EPA methods 522 and 680 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, laboratory control sample / laboratory control sample duplicate results, matrix spike / matrix spike duplicate recoveries, internal standard areas, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The VOC continuing calibration performed on instrument A3UX11 on 03/16/17 @ 9:29 had percent differences (%Ds) for bromomethane and bromoform which exceeded the quality control limits. Samples MRC-MW58A-030907, MRC-MW94B-030917 and TB-030917 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

Notes

The following compound was detected in the method blank at the maximum concentration indicated below:

Compound	Concentration	Action Level
Methylene chloride	0.914 ug/L	9.14 ug/L

An action level of 10X the maximum concentration was established to evaluate for blank contamination. Dilution factors, if necessary, were taken into consideration during the application of the action level. No validation actions were warranted as all sample results were nondetects.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: One CCV %D was noncompliant for the VOC fraction.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-DUP01-030907			MRC-MW103A-030907			MRC-MW103B-030907			MRC-MW58A-030907		
SDG: 240-76566-1	LAB_ID	240-76566-6			240-76566-2			240-76566-3			240-76566-4		
FRACTION: OV	SAMP_DATE	3/9/2017			3/9/2017			3/9/2017			3/9/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW103A-030907											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE											0.23	U	
1,1,2,2-TETRACHLOROETHANE											0.32	U	
1,1,2-TRICHLOROETHANE											0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE											0.41	U	
1,1-DICHLOROETHANE											0.25	U	
1,1-DICHLOROETHENE											0.27	U	
1,2,3-TRICHLOROBENZENE		0.35	U		0.35	U		0.35	U				
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE											0.47	U	
1,2-DIBROMOETHANE											0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE											0.3	U	
1,2-DICHLOROPROPANE											0.3	U	
1,3,5-TRICHLOROBENZENE		0.33	U		0.33	U		0.33	U				
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE											1	U	
2-HEXANONE											1.2	U	
4-METHYL-2-PENTANONE											0.71	U	
ACETONE											1.8	U	
BENZENE											0.28	U	
BROMODICHLOROMETHANE											0.3	U	
BROMOFORM											0.43	UJ	C
BROMOMETHANE											0.42	UJ	C
CARBON DISULFIDE											0.34	U	
CARBON TETRACHLORIDE											0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE											0.25	U	
CHLOROETHANE											0.41	U	
CHLOROFORM											0.31	U	
CHLOROMETHANE											0.43	U	
CIS-1,2-DICHLOROETHENE											0.3	U	
CIS-1,3-DICHLOROPROPENE											0.26	U	
CYCLOHEXANE											0.44	U	
DICHLORODIFLUOROMETHANE											0.5	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW94B-030907			TB-030917		
SDG: 240-76566-1	LAB_ID	240-76566-5			240-76566-1		
FRACTION: OV	SAMP_DATE	3/9/2017			3/9/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U	
1,2,3-TRICHLOROBENZENE							
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U	
1,3,5-TRICHLOROBENZENE							
1,3-DICHLOROBENZENE		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U	
BROMOFORM		0.43	UJ	C	0.43	UJ	C
BROMOMETHANE		0.42	UJ	C	0.42	UJ	C
CARBON DISULFIDE		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U	

PROJ_NO: 07776	NSAMPLE	MRC-DUP01-030907			MRC-MW103A-030907			MRC-MW103B-030907			MRC-MW58A-030907		
SDG: 240-76566-1	LAB_ID	240-76566-6			240-76566-2			240-76566-3			240-76566-4		
FRACTION: OV	SAMP_DATE	3/9/2017			3/9/2017			3/9/2017			3/9/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW103A-030907											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE											0.26	U	
ISOPROPYLBENZENE											0.21	U	
METHYL ACETATE											1.4	U	
METHYL CYCLOHEXANE											0.45	U	
METHYL TERT-BUTYL ETHER											0.27	U	
METHYLENE CHLORIDE											0.53	U	
STYRENE											0.23	U	
TETRACHLOROETHENE											0.3	U	
TOLUENE											0.23	U	
TOTAL XYLENES											0.24	U	
TRANS-1,2-DICHLOROETHENE											0.29	U	
TRANS-1,3-DICHLOROPROPENE											0.31	U	
TRICHLOROETHENE											0.33	U	
TRICHLOROFLUOROMETHANE											0.5	U	
VINYL CHLORIDE											0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW94B-030907			TB-030917		
SDG: 240-76566-1	LAB_ID	240-76566-5			240-76566-1		
FRACTION: OV	SAMP_DATE	3/9/2017			3/9/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U	
METHYL ACETATE		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW58A-030907		
SDG: 240-76566-1	LAB_ID	240-76566-4		
FRACTION: OS	SAMP_DATE	3/9/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,4-DIOXANE		0.37		

PROJ_NO: 07776	NSAMPLE	MRC-DUP01-030907			MRC-MW103A-030907			MRC-MW103B-030907		
SDG: 240-76566-1	LAB_ID	240-76566-6			240-76566-2			240-76566-3		
FRACTION: PCB	SAMP_DATE	3/9/2017			3/9/2017			3/9/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF	MRC-MW103A-030907								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		0.069	U		0.069	U		0.07	U	
DICHLOROBIPHENYLS		0.0053	U		0.0054	U		0.0054	U	
HEPTACHLOROBIPHENYLS		0.029	U		0.03	U		0.03	U	
HEXACHLOROBIPHENYLS		0.015	U		0.015	U		0.015	U	
MONOCHLOROBIPHENYLS		0.0055	U		0.0056	U		0.0056	U	
NONACHLOROBIPHENYLS		0.048	U		0.049	U		0.049	U	
OCTACHLOROBIPHENYLS		0.037	U		0.038	U		0.038	U	
PENTACHLOROBIPHENYLS		0.014	U		0.014	U		0.014	U	
TETRACHLOROBIPHENYLS		0.013	U		0.013	U		0.013	U	
TRICHLOROBIPHENYLS		0.0064	U		0.0064	U		0.0065	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76566-1

SDG No.:

Client Sample ID: TB-030917 | Lab Sample ID: 240-76566-1

Matrix: Water | Lab File ID: UXJ0843.D

Analysis Method: 8260C | Date Collected: 03/09/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/16/2017 14:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270891 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76566-1

SDG No.:

Client Sample ID: TB-030917 | Lab Sample ID: 240-76566-1

Matrix: Water | Lab File ID: UXJ0843.D

Analysis Method: 8260C | Date Collected: 03/09/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/16/2017 14:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270891 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	85		73-124
1868-53-7	Dibromofluoromethane (Surr)	84		80-120
460-00-4	4-Bromofluorobenzene (Surr)	75		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76566-1

SDG No.:

Client Sample ID: MRC-MW103A-030907 | Lab Sample ID: 240-76566-2

Matrix: Water | Lab File ID: UXJ0842.D

Analysis Method: 8260C | Date Collected: 03/09/2017 10:18

Sample wt/vol: 5(mL) | Date Analyzed: 03/16/2017 14:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270891 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
108-90-7	Chlorobenzene	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	86		73-124
1868-53-7	Dibromofluoromethane (Surr)	83		80-120
460-00-4	4-Bromofluorobenzene (Surr)	76		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76566-1

SDG No.:

Client Sample ID: MRC-MW103B-030907 | Lab Sample ID: 240-76566-3

Matrix: Water | Lab File ID: UXJ0844.D

Analysis Method: 8260C | Date Collected: 03/09/2017 11:53

Sample wt/vol: 5(mL) | Date Analyzed: 03/16/2017 14:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270891 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
108-90-7	Chlorobenzene	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	85		73-124
1868-53-7	Dibromofluoromethane (Surr)	82		80-120
460-00-4	4-Bromofluorobenzene (Surr)	75		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76566-1

SDG No.:

Client Sample ID: MRC-MW58A-030907 | Lab Sample ID: 240-76566-4

Matrix: Water | Lab File ID: UXJ0845.D

Analysis Method: 8260C | Date Collected: 03/09/2017 14:30

Sample wt/vol: 5(mL) | Date Analyzed: 03/16/2017 15:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270891 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76566-1

SDG No.:

Client Sample ID: MRC-MW58A-030907 | Lab Sample ID: 240-76566-4

Matrix: Water | Lab File ID: UXJ0845.D

Analysis Method: 8260C | Date Collected: 03/09/2017 14:30

Sample wt/vol: 5(mL) | Date Analyzed: 03/16/2017 15:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270891 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		73-124
1868-53-7	Dibromofluoromethane (Surr)	85		80-120
460-00-4	4-Bromofluorobenzene (Surr)	76		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76566-1

SDG No.:

Client Sample ID: MRC-MW94B-030907 | Lab Sample ID: 240-76566-5

Matrix: Water | Lab File ID: UXJ0846.D

Analysis Method: 8260C | Date Collected: 03/09/2017 15:31

Sample wt/vol: 5(mL) | Date Analyzed: 03/16/2017 15:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270891 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76566-1

SDG No.:

Client Sample ID: MRC-MW94B-030907 | Lab Sample ID: 240-76566-5

Matrix: Water | Lab File ID: UXJ0846.D

Analysis Method: 8260C | Date Collected: 03/09/2017 15:31

Sample wt/vol: 5(mL) | Date Analyzed: 03/16/2017 15:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270891 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		73-124
1868-53-7	Dibromofluoromethane (Surr)	84		80-120
460-00-4	4-Bromofluorobenzene (Surr)	76		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	81		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76566-1

SDG No.:

Client Sample ID: MRC-DUP01-030907 | Lab Sample ID: 240-76566-6

Matrix: Water | Lab File ID: UXJ0847.D

Analysis Method: 8260C | Date Collected: 03/09/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/16/2017 15:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270891 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
108-90-7	Chlorobenzene	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		73-124
1868-53-7	Dibromofluoromethane (Surr)	87		80-120
460-00-4	4-Bromofluorobenzene (Surr)	76		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		63-132

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76566-1

SDG No.:

Client Sample ID: MRC-MW58A-030907 | Lab Sample ID: 240-76566-4

Matrix: Water | Lab File ID: Z24334_18.D

Analysis Method: 522 | Date Collected: 03/09/2017 14:30

Extract. Method: 3535A | Date Extracted: 03/13/2017 19:00

Sample wt/vol: 100(mL) | Date Analyzed: 03/15/2017 17:46

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 114936 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.37		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	85		46-130

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-76566-1

SDG No.:

Client Sample ID: MRC-MW103A-030907 | Lab Sample ID: 240-76566-2

Matrix: Water | Lab File ID: xc1611.D

Analysis Method: 680 | Date Collected: 03/09/2017 10:18

Extract. Method: 680 | Date Extracted: 03/13/2017 15:39

Sample wt/vol: 1009(mL) | Date Analyzed: 03/16/2017 15:35

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 472745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.099	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.069	U	0.50	0.069
25512-42-9	Dichlorobiphenyl	0.0054	U	0.099	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0064	U	0.099	0.0064

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	82		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-76566-1

SDG No.:

Client Sample ID: MRC-MW103B-030907 | Lab Sample ID: 240-76566-3

Matrix: Water | Lab File ID: xc1612.D

Analysis Method: 680 | Date Collected: 03/09/2017 11:53

Extract. Method: 680 | Date Extracted: 03/13/2017 15:39

Sample wt/vol: 1003.1(mL) | Date Analyzed: 03/16/2017 16:04

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 472745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.0054	U	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0065	U	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	79		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-76566-1

SDG No.:

Client Sample ID: MRC-DUP01-030907 | Lab Sample ID: 240-76566-6

Matrix: Water | Lab File ID: xc1613.D

Analysis Method: 680 | Date Collected: 03/09/2017 00:00

Extract. Method: 680 | Date Extracted: 03/13/2017 15:39

Sample wt/vol: 1017.2(mL) | Date Analyzed: 03/16/2017 16:33

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 472745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.048	U	0.49	0.048
55722-26-4	Octachlorobiphenyl	0.037	U	0.29	0.037
27323-18-8	Monochlorobiphenyl	0.0055	U	0.098	0.0055
2051-24-3	DCB Decachlorobiphenyl	0.069	U	0.49	0.069
25512-42-9	Dichlorobiphenyl	0.0053	U	0.098	0.0053
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0064	U	0.098	0.0064

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	87		25-113

Appendix C

Support Documentation

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

BALTIMORE

0.4/0.1

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Payon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.1
Client Contact: Mr. Stuart Cameron	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3022	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Middle River Center	SSOW#:			

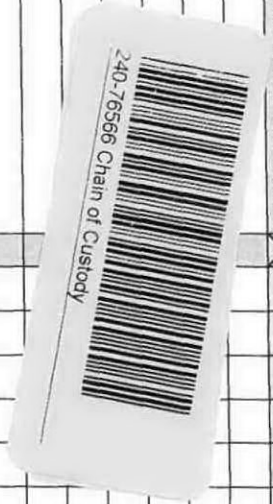
Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (GC/MS Sim) 522 mod	PCBs, Homo, Chlorinated Benzene (680 and 8260C)	Total Number of containers	Special Instructions/Note:
				Preservation Code:			A				
TB-030917	3/9/17	—	G	Water			2				
MRC-MW103A-030917	↓	1018	↓	Water			3		2		
MRC-MW103B-030917	↓	1153	↓	Water			3		2		
MRC-MW58A-030917	↓	1430	↓	Water			3	2			
MRC-MW94B-030917	↓	1531	↓	Water			3				
				Water			3		2		
MRC-DUP01-030917				Water							
				Water							
				Water							
				Water							
				Water							



240-76566 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Pa[illegible]	3/9/17	TA INC	[illegible]	3/9/17 1845	[illegible]
Dalton Carter	3/9/17 1600		[illegible]	03/10/17 1110	TAC

Custody Seals Intact: | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76566-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
680	Polychlorinated Biphenyls (PCBs) (GC/MS)	EPA	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76566-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-76566-1	TB-030917	Water	03/09/17 00:00	03/10/17 11:10
240-76566-2	MRC-MW103A-030907	Water	03/09/17 10:18	03/10/17 11:10
240-76566-3	MRC-MW103B-030907	Water	03/09/17 11:53	03/10/17 11:10
240-76566-4	MRC-MW58A-030907	Water	03/09/17 14:30	03/10/17 11:10
240-76566-5	MRC-MW94B-030907	Water	03/09/17 15:31	03/10/17 11:10
240-76566-6	MRC-DUP01-030907	Water	03/09/17 00:00	03/10/17 11:10

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 160500

Canton Facility

Client Tetra Tech Site Name MRC 2017 GW

Cooler Received on 03/10/17 Opened on 03/10/17

Cooler unpacked by: DSO

FedEx: 1st Grd ~~Exp~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box ~~Client Cooler~~ Box Other

Packing material used: ~~Bubble Wrap~~ Foam ~~Plastic Bag~~ None Other

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

☐ See Multiple Cooler Form

1. Cooler temperature upon receipt
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 0.4 °C Corrected Cooler Temp. 0.1 °C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 11-15 have been checked at the originating laboratory.		
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ____	Yes	No
15. Was a LL Hg or Me Hg trip blank present? ____	Yes	No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.

Sample(s) ____ were received in a broken container.

Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.

Time preserved: ____ Preservative(s) added/Lot number(s): ____

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-76566-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 680_PCB analysis was performed at TestAmerica Savannah Laboratory. The 522 1,4-Dioxane analysis was performed at TestAmerica Burlington Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 3/10/2017 11:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1º C.

1,4-DIOXANE

Sample MRC-MW58A-030907 (240-76566-4) was analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 03/13/2017 and analyzed on 03/15/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-030917 (240-76566-1), MRC-MW103A-030907 (240-76566-2), MRC-MW103B-030907 (240-76566-3), MRC-MW58A-030907 (240-76566-4), MRC-MW94B-030907 (240-76566-5) and MRC-DUP01-030907 (240-76566-6) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/16/2017.

Methylene Chloride was detected in method blank MB 240-270891/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The continuing calibration verification (CCV) for analytical batch 270891 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required. TB-030917 (240-76566-1), MRC-MW103A-030907 (240-76566-2), MRC-MW103B-030907 (240-76566-3), MRC-MW58A-030907 (240-76566-4), MRC-MW94B-030907 (240-76566-5) and MRC-DUP01-030907 (240-76566-6)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples MRC-MW103A-030907 (240-76566-2), MRC-MW103B-030907 (240-76566-3) and MRC-DUP01-030907 (240-76566-6) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 03/13/2017 and analyzed on 03/16/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-030917	240-76566-1	84	80	85	75
MRC-MW103A-030907	240-76566-2	83	78	86	76
MRC-MW103B-030907	240-76566-3	82	82	85	75
MRC-MW58A-030907	240-76566-4	85	80	88	76
MRC-MW94B-030907	240-76566-5	84	81	87	76
MRC-DUP01-030907	240-76566-6	87	86	88	76
	MB 240-270891/6	83	83	88	79
	LCS 240-270891/4	86	80	87	77
MRC-MW103A-030907 MS	240-76566-2 MS	86	78	86	78
MRC-MW103A-030907 MSD	240-76566-2 MSD	86	78	85	77

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ0831.D

Lab ID: LCS 240-270891/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.31	93	79-133	
1,2,3-Trichlorobenzene	10.0	9.15	92	53-135	
1,1,2,2-Tetrachloroethane	10.0	10.2	102	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.44	94	65-151	
1,1,2-Trichloroethane	10.0	10.1	101	80-120	
1,1-Dichloroethane	10.0	9.92	99	77-121	
1,1-Dichloroethene	10.0	8.87	89	70-141	
1,2,4-Trichlorobenzene	10.0	9.33	93	53-137	
1,2-Dibromo-3-Chloropropane	10.0	12.0	120	46-140	
Ethylene Dibromide	10.0	9.39	94	80-126	
1,2-Dichlorobenzene	10.0	9.55	96	80-120	
1,2-Dichloroethane	10.0	9.33	93	76-130	
1,2-Dichloropropane	10.0	10.3	103	79-121	
1,3-Dichlorobenzene	10.0	9.19	92	80-120	
1,4-Dichlorobenzene	10.0	9.23	92	80-120	
2-Butanone (MEK)	20.0	16.2	81	54-122	
2-Hexanone	20.0	17.7	89	56-124	
4-Methyl-2-pentanone (MIBK)	20.0	21.4	107	60-131	
Acetone	20.0	11.8	59	46-120	
Benzene	10.0	10.0	100	80-120	
Dichlorobromomethane	10.0	9.89	99	76-125	
Bromoform	10.0	12.2	122	52-157	
Bromomethane	10.0	7.14	71	24-160	
Carbon disulfide	10.0	10.2	102	58-160	
Carbon tetrachloride	10.0	10.9	109	69-149	
Chlorobenzene	10.0	9.48	95	80-120	
Chloroethane	10.0	8.41	84	24-147	
Chloroform	10.0	9.47	95	80-120	
Chloromethane	10.0	10.1	101	50-135	
cis-1,2-Dichloroethene	10.0	9.83	98	80-120	
cis-1,3-Dichloropropene	10.0	9.77	98	75-120	
Cyclohexane	10.0	9.63	96	66-135	
Chlorodibromomethane	10.0	10.6	106	68-131	
Dichlorodifluoromethane	10.0	7.77	78	32-140	
Ethylbenzene	10.0	9.37	94	80-120	
Isopropylbenzene	10.0	9.44	94	80-120	
Methyl acetate	50.0	53.8	108	65-124	
Methyl tert-butyl ether	10.0	10.5	105	75-126	
Methylcyclohexane	10.0	9.12	91	71-122	
Methylene Chloride	10.0	9.38	94	68-136	
Styrene	10.0	9.65	97	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ0831.D

Lab ID: LCS 240-270891/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Tetrachloroethene	10.0	9.25	93	80-123	
Toluene	10.0	9.44	94	80-121	
trans-1,2-Dichloroethene	10.0	9.96	100	80-123	
trans-1,3-Dichloropropene	10.0	8.89	89	65-120	
Trichloroethene	10.0	9.48	95	80-122	
Trichlorofluoromethane	10.0	9.13	91	56-161	
Vinyl chloride	10.0	8.67	87	60-129	
Xylenes, Total	20.0	18.9	94	80-120	
m-Xylene & p-Xylene	10.0	9.30	93	80-120	
o-Xylene	10.0	9.56	96	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ0840.D

Lab ID: 240-76566-2 MS Client ID: MRC-MW103A-030907 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,2,3-Trichlorobenzene	10.0	0.35 U	9.13	91	40-139	
1,2,4-Trichlorobenzene	10.0	0.27 U	9.06	91	35-140	
1,2-Dichlorobenzene	10.0	0.26 U	9.76	98	62-123	
1,3-Dichlorobenzene	10.0	0.32 U	9.17	92	59-122	
1,4-Dichlorobenzene	10.0	0.23 U	9.55	96	60-122	
Chlorobenzene	10.0	0.32 U	9.57	96	58-128	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ0841.D

Lab ID: 240-76566-2 MSD Client ID: MRC-MW103A-030907 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,2,3-Trichlorobenzene	10.0	9.85	98	8	35	40-139	
1,2,4-Trichlorobenzene	10.0	9.68	97	7	35	35-140	
1,2-Dichlorobenzene	10.0	10.0	100	2	35	62-123	
1,3-Dichlorobenzene	10.0	9.49	95	3	35	59-122	
1,4-Dichlorobenzene	10.0	9.27	93	3	35	60-122	
Chlorobenzene	10.0	9.76	98	2	35	58-128	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab File ID: UXJ0834.D Lab Sample ID: MB 240-270891/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX11 Date Analyzed: 03/16/2017 11:00

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-270891/4	UXJ0831.D	03/16/2017 09:52
MRC-MW103A-030907 MS	240-76566-2 MS	UXJ0840.D	03/16/2017 13:16
MRC-MW103A-030907 MSD	240-76566-2 MSD	UXJ0841.D	03/16/2017 13:39
MRC-MW103A-030907	240-76566-2	UXJ0842.D	03/16/2017 14:02
TB-030917	240-76566-1	UXJ0843.D	03/16/2017 14:24
MRC-MW103B-030907	240-76566-3	UXJ0844.D	03/16/2017 14:47
MRC-MW58A-030907	240-76566-4	UXJ0845.D	03/16/2017 15:10
MRC-MW94B-030907	240-76566-5	UXJ0846.D	03/16/2017 15:32
MRC-DUP01-030907	240-76566-6	UXJ0847.D	03/16/2017 15:55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76566-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-270891/6

Matrix: Water | Lab File ID: UXJ0834.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/16/2017 11:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270891 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76566-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-270891/6

Matrix: Water | Lab File ID: UXJ0834.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/16/2017 11:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270891 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.914	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		73-124
1868-53-7	Dibromofluoromethane (Surr)	83		80-120
460-00-4	4-Bromofluorobenzene (Surr)	79		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		63-132

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab File ID: BFB70308.D BFB Injection Date: 03/08/2017

Instrument ID: A3UX11 BFB Injection Time: 08:48

Analysis Batch No.: 269659

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.1	
75	30.0 - 60.0 % of mass 95	53.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	88.8	
175	5.0 - 9.0 % of mass 174	7.2	(8.1) 1
176	95.0 - 101.0 % of mass 174	85.2	(96.0) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-269659/2	UXJ0659A.D	03/08/2017	12:44
	STD8260 240-269659/3	UXJ0660A.D	03/08/2017	13:06
	STD8260 240-269659/4	UXJ0661A.D	03/08/2017	13:29
	STD8260 240-269659/5	UXJ0662A.D	03/08/2017	13:52
	STD8260 240-269659/6	UXJ0663A.D	03/08/2017	14:15
	STD8260 240-269659/7	UXJ0664A.D	03/08/2017	14:37
	ICV 240-269659/20	UXJ0665A.D	03/08/2017	15:00
	STD6 240-269659/8	UXJ0666A.D	03/08/2017	15:23
	STD5 240-269659/9	UXJ0667.D	03/08/2017	15:46
	STD4 240-269659/10	UXJ0668.D	03/08/2017	16:08
	STD3 240-269659/11	UXJ0669.D	03/08/2017	16:31
	STD2 240-269659/12	UXJ0670.D	03/08/2017	16:54
	STD1 240-269659/13	UXJ0671.D	03/08/2017	17:17
	ICV 240-269659/21	UXJ0672.D	03/08/2017	17:39

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 12:44 Calibration End Date: 03/08/2017 14:37 Calibration ID: 38704

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-269659/7	UXJ0664A.D
Level 2	STD8260 240-269659/6	UXJ0663A.D
Level 3	STD8260 240-269659/5	UXJ0662A.D
Level 4	STD8260 240-269659/4	UXJ0661A.D
Level 5	STD8260 240-269659/3	UXJ0660A.D
Level 6	STD8260 240-269659/2	UXJ0659A.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2462 0.1560	0.2478	0.2370	0.2011	0.1963	Ave		0.2141			0.1000	16.9		20.0			
Chloromethane	0.2563 0.1995	0.2850	0.2625	0.2609	0.2369	Ave		0.2502			0.1000	11.7		20.0			
Vinyl chloride	0.2708 0.2056	0.2865	0.2668	0.2588	0.2408	Ave		0.2549			0.1000	11.1		20.0			
Butadiene	0.2690 0.1943	0.2982	0.2727	0.2624	0.2461	Ave		0.2571				13.7		20.0			
Bromomethane	0.1150 0.0945	0.1255	0.1153	0.1161	0.1099	Ave		0.1127			0.0500	9.1		20.0			
Chloroethane	0.1096 0.0967	0.1194	0.1156	0.1170	0.1125	Ave		0.1118			0.0500	7.3		20.0			
Dichlorofluoromethane	0.2974 0.2479	0.2913	0.2828	0.2884	0.2802	Ave		0.2813				6.2		20.0			
Trichlorofluoromethane	0.2726 0.2385	0.2884	0.2800	0.2653	0.2718	Ave		0.2694			0.1000	6.4		20.0			
Ethyl ether	0.2513 0.2116	0.2485	0.2597	0.2597	0.2440	Ave		0.2458				7.3		20.0			
Acrolein	0.0346 0.0259	0.0316	0.0329	0.0307	0.0278	Ave		0.0306				10.5		20.0			
1,1-Dichloroethene	0.3225 0.2439	0.2877	0.3013	0.2950	0.2692	Ave		0.2866			0.1000	9.5		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1443 0.1197	0.1272	0.1637	0.1360	0.1339	Ave		0.1374			0.0500	11.1		20.0			
Acetone	0.1286 0.0839	0.1407	0.1232	0.1010	0.1002	Ave		0.1129			0.0100	18.9		20.0			
Iodomethane	0.4329 0.3649	0.4273	0.4079	0.4275	0.3972	Ave		0.4096				6.3		20.0			
Carbon disulfide	0.7266 0.6698	0.7039	0.7560	0.7552	0.7132	Ave		0.7208			0.1000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 12:44 Calibration End Date: 03/08/2017 14:37 Calibration ID: 38704

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1846 0.2018	0.2299	0.2158	0.2157	0.2146	Ave		0.2104				7.3		20.0			
Methyl acetate	0.1947 0.1533	0.1726	0.1799	0.1695	0.1646	Ave		0.1724			0.1000	8.2		20.0			
Methylene Chloride	0.4442 0.2672	0.3591	0.3238	0.3148	0.2989	Ave		0.3347			0.1000	18.4		20.0			
2-Methyl-2-propanol	0.0193 0.0108	0.0172	0.0163	0.0148	0.0139	Ave		0.0154				18.9		20.0			
Acrylonitrile	0.0871 0.0740	0.0822	0.0854	0.0796	0.0769	Ave		0.0809				6.2		20.0			
Methyl tert-butyl ether	0.8282 0.7576	0.8225	0.8144	0.8204	0.8045	Ave		0.8079			0.1000	3.2		20.0			
trans-1,2-Dichloroethene	0.3127 0.2957	0.3454	0.3245	0.3235	0.3204	Ave		0.3204			0.1000	5.1		20.0			
Hexane	0.0852 0.0648	0.0615	0.0840	0.0659	0.0671	Ave		0.0714				14.6		20.0			
1,1-Dichloroethane	0.5655 0.5209	0.5598	0.5672	0.5629	0.5530	Ave		0.5549			0.2000	3.1		20.0			
Vinyl acetate	0.5610 0.5334	0.5313	0.5389	0.5487	0.5587	Ave		0.5453				2.3		20.0			
cis-1,2-Dichloroethene	0.3748 0.3145	0.3395	0.3356	0.3394	0.3365	Ave		0.3400			0.1000	5.7		20.0			
2-Butanone (MEK)	0.1347 0.1105	0.1365	0.1255	0.1094	0.1125	Ave		0.1215			0.0100	10.2		20.0			
2,2-Dichloropropane	0.3348 0.3071	0.3209	0.3477	0.3402	0.3356	Ave		0.3311				4.4		20.0			
Chlorobromomethane	0.1486 0.1466	0.1442	0.1486	0.1506	0.1524	Ave		0.1485				1.9		20.0			
Tetrahydrofuran	0.0665 0.0591	0.0634	0.0618	0.0595	0.0592	Ave		0.0616				4.8		20.0			
Chloroform	0.5373 0.5058	0.5246	0.5295	0.5393	0.5247	Ave		0.5269			0.2000	2.3		20.0			
1,1,1-Trichloroethane	0.4233 0.3851	0.3906	0.4095	0.4098	0.4059	Ave		0.4040			0.1000	3.5		20.0			
Cyclohexane	0.4378 0.3798	0.3744	0.4557	0.3857	0.3913	Ave		0.4041			0.1000	8.4		20.0			
1,1-Dichloropropene	0.4178 0.3958	0.3895	0.4183	0.4073	0.4102	Ave		0.4065				2.9		20.0			
Carbon tetrachloride	0.2532 0.3103	0.2364	0.2942	0.2938	0.3100	Ave		0.2830			0.1000	10.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 12:44 Calibration End Date: 03/08/2017 14:37 Calibration ID: 38704

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0082 0.0059	0.0078	0.0081	0.0069	0.0070	Ave		0.0073				12.1		20.0			
1,2-Dichloroethane	0.4212 0.4040	0.4130	0.4037	0.4157	0.4202	Ave		0.4129			0.1000	1.9		20.0			
Benzene	1.2150 1.2100	1.2165	1.2017	1.2267	1.2288	Ave		1.2165			0.5000	0.8		20.0			
n-Heptane	0.0820 0.0601	0.0759	0.0820	0.0582	0.0592	Ave		0.0696				16.7		20.0			
Trichloroethene	0.3250 0.3110	0.3015	0.3184	0.3184	0.3165	Ave		0.3151			0.1500	2.6		20.0			
Methylcyclohexane	0.3921 0.3586	0.3495	0.4379	0.3500	0.3636	Ave		0.3753			0.1000	9.2		20.0			
1,2-Dichloropropane	0.2858 0.2910	0.2891	0.2874	0.2942	0.2914	Ave		0.2898			0.1000	1.0		20.0			
Dibromomethane	0.1561 0.1604	0.1603	0.1663	0.1614	0.1600	Ave		0.1608				2.1		20.0			
1,4-Dioxane	0.0012 0.0010	0.0017	0.0019	0.0020	0.0016	Qua	-0.023	0.0024	-0.000002						0.9990		0.9900
Dichlorobromomethane	0.3157 0.3525	0.3165	0.3222	0.3404	0.3471	Ave		0.3324			0.1500	4.9		20.0			
2-Chloroethyl vinyl ether	0.1668 0.1574	0.1549	0.1573	0.1569	0.1555	Ave		0.1581				2.8		20.0			
cis-1,3-Dichloropropene	0.4129 0.4595	0.4139	0.4274	0.4447	0.4602	Ave		0.4364			0.1500	4.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2181 0.2214	0.2155	0.2144	0.2044	0.2128	Ave		0.2144			0.0500	2.7		20.0			
Toluene	1.8435 1.9094	1.7647	1.7341	1.8177	1.8825	Ave		1.8253			0.4000	3.7		20.0			
trans-1,3-Dichloropropene	0.5210 0.5919	0.5116	0.5185	0.5516	0.5808	Ave		0.5459			0.1000	6.3		20.0			
Ethyl methacrylate	0.4298 0.4840	0.4278	0.4299	0.4459	0.4675	Ave		0.4475				5.2		20.0			
1,1,2-Trichloroethane	0.3203 0.3203	0.2685	0.2954	0.3115	0.3204	Ave		0.3061			0.1000	6.8		20.0			
Tetrachloroethene	0.3637 0.3403	0.3066	0.3168	0.3253	0.3330	Ave		0.3310			0.1500	6.0		20.0			
1,3-Dichloropropane	0.5954 0.5937	0.5823	0.5626	0.5759	0.5933	Ave		0.5839				2.2		20.0			
2-Hexanone	0.1967 0.2603	0.2326	0.2327	0.2233	0.2443	Ave		0.2316			0.0500	9.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 12:44 Calibration End Date: 03/08/2017 14:37 Calibration ID: 38704

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2314 0.3237	0.2441	0.2682	0.2847	0.3045	Ave		0.2761				12.8		20.0			
Ethylene Dibromide	0.3030 0.3039	0.2920	0.2903	0.2910	0.3031	Ave		0.2972				2.3		20.0			
Chlorobenzene	1.0643 1.0580	1.0393	1.0366	1.0776	1.0957	Ave		1.0619			0.3000	2.1		20.0			
1,1,1,2-Tetrachloroethane	0.2864 0.3647	0.3222	0.3249	0.3447	0.3656	Ave		0.3347				9.0		20.0			
Ethylbenzene	0.5987 0.6017	0.5825	0.5573	0.5880	0.6030	Ave		0.5885				2.9		20.0			
m-Xylene & p-Xylene	0.6920 0.7450	0.6820	0.6905	0.7118	0.7347	Ave		0.7093				3.6		20.0			
o-Xylene	0.6972 0.6991	0.6409	0.6614	0.6806	0.7045	Ave		0.6806				3.7		20.0			
Styrene	1.1395 1.2638	1.0895	1.1331	1.1713	1.2423	Ave		1.1732			0.3000	5.7		20.0			
Bromoform	0.1018 0.1562	0.1113	0.1178	0.1274	0.1416	Ave		0.1260			0.1000	16.0		20.0			
Isopropylbenzene	1.5256 1.6425	1.4835	1.5564	1.6131	1.6668	Ave		1.5813			0.1000	4.5		20.0			
1,1,2,2-Tetrachloroethane	0.6353 0.6380	0.6834	0.6753	0.6677	0.6605	Ave		0.6600			0.3000	3.0		20.0			
Bromobenzene	0.9310 0.8690	0.9422	0.9165	0.9135	0.9123	Ave		0.9141				2.7		20.0			
1,2,3-Trichloropropane	0.2088 0.2175	0.2462	0.2475	0.2229	0.2311	Ave		0.2290				6.8		20.0			
trans-1,4-Dichloro-2-butene	0.0856 0.1530	0.0992	0.1063	0.1200	0.1306	Lin1	-0.093	0.1450							0.9910		0.9900
N-Propylbenzene	0.8993 0.8871	0.9457	0.9131	0.9251	0.9355	Ave		0.9176				2.4		20.0			
2-Chlorotoluene	0.7885 0.7753	0.8374	0.8019	0.8137	0.8129	Ave		0.8050				2.7		20.0			
1,3,5-Trimethylbenzene	2.3652 2.5521	2.4382	2.5754	2.6014	2.6287	Ave		2.5268				4.1		20.0			
4-Chlorotoluene	0.8575 0.8669	0.8622	0.8499	0.8700	0.8771	Ave		0.8639				1.1		20.0			
tert-Butylbenzene	2.2899 2.0791	2.0627	2.1725	2.1790	2.1420	Ave		2.1542				3.8		20.0			
1,2,4-Trimethylbenzene	2.4685 2.6169	2.5175	2.6895	2.6556	2.7220	Ave		2.6117				3.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 12:44 Calibration End Date: 03/08/2017 14:37 Calibration ID: 38704

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.6365 2.7362	2.6348	2.8553	2.8006	2.8242	Ave		2.7479				3.5		20.0			
1,3-Dichlorobenzene	1.4308 1.4267	1.5158	1.4746	1.4786	1.5055	Ave		1.4720			0.6000	2.5		20.0			
4-Isopropyltoluene	2.1502 2.3350	2.2685	2.3388	2.3609	2.4359	Ave		2.3149				4.2		20.0			
1,4-Dichlorobenzene	1.5374 1.4928	1.5668	1.5296	1.5207	1.5542	Ave		1.5336			0.5000	1.7		20.0			
n-Butylbenzene	1.6941 1.7491	1.7760	1.8641	1.8674	1.8642	Ave		1.8025				4.1		20.0			
1,2-Dichlorobenzene	1.2744 1.2780	1.3249	1.3247	1.3312	1.3359	Ave		1.3115			0.4000	2.1		20.0			
1,2-Dibromo-3-Chloropropane	0.0698 0.0724	0.0683	0.0844	0.0804	0.0782	Ave		0.0756			0.0500	8.5		20.0			
1,2,4-Trichlorobenzene	0.5438 0.4544	0.6016	0.5776	0.5346	0.5300	Ave		0.5403			0.2000	9.3		20.0			
Hexachlorobutadiene	0.2595 0.1799	0.2246	0.2425	0.2352	0.2206	Ave		0.2270				11.9		20.0			
Naphthalene	1.2807 1.0845	1.3410	1.3160	1.2703	1.2286	Ave		1.2535				7.3		20.0			
1,2,3-Trichlorobenzene	0.4855 0.3901	0.5379	0.4898	0.4779	0.4415	Ave		0.4705				10.6		20.0			
Dibromofluoromethane (Surr)	0.2496 0.2583	0.2676	0.2584	0.2607	0.2560	Ave		0.2584				2.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3156 0.3383	0.3299	0.3335	0.3376	0.3315	Ave		0.3310				2.5		20.0			
Toluene-d8 (Surr)	1.4089 1.5607	1.4807	1.4289	1.5008	1.4847	Ave		1.4775				3.7		20.0			
4-Bromofluorobenzene (Surr)	0.4326 0.4743	0.4549	0.4311	0.4533	0.4610	Ave		0.4512				3.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 12:44 Calibration End Date: 03/08/2017 14:37 Calibration ID: 38704

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-269659/7	UXJ0664A.D
Level 2	STD8260 240-269659/6	UXJ0663A.D
Level 3	STD8260 240-269659/5	UXJ0662A.D
Level 4	STD8260 240-269659/4	UXJ0661A.D
Level 5	STD8260 240-269659/3	UXJ0660A.D
Level 6	STD8260 240-269659/2	UXJ0659A.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	26162 891893	49194	125846	220363	474253	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	27233 1140387	56585	139377	285839	572410	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	28781 1175428	56869	141636	283554	581954	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	28584 1110763	59190	144782	287516	594713	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Ave	12221 540261	24906	61195	127218	265640	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	11649 552630	23706	61389	128189	271795	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	31608 1417470	57824	150166	315995	677045	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	28969 1363529	57258	148661	290603	656628	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	26707 1209608	49333	137906	284543	589674	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	18407 741525	31365	87369	168350	336222	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	34270 1394442	57106	159943	323214	650355	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	15332 684207	25244	86911	148964	323494	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Ave	27327 959062	55860	130822	221213	484158	2.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	46002 2086225	84821	216579	468316	959649	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	77217 3829626	139740	401387	827345	1723173	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	19617 1153792	45634	114571	236347	518550	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 12:44 Calibration End Date: 03/08/2017 14:37 Calibration ID: 38704

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	103473 4382614	171284	477594	928237	1989162	5.00 200	10.0	25.0	50.0	100
Methylene Chloride	FB	Ave	47205 1527975	71293	171888	344883	722112	1.00 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	20508 620236	34170	86536	162293	336566	10.0 400	20.0	50.0	100	200
Acrylonitrile	FB	Ave	92597 4230786	163157	453358	872606	1858267	10.0 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	88013 4331686	163290	432401	898844	1943791	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	33232 1690732	68576	172303	354438	774109	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	9057 370346	12218	44597	72166	162130	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	60094 2978090	111132	301150	616683	1336251	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	59620 3049819	105480	286121	601077	1350042	1.00 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	39827 1798304	67392	178187	371798	813086	1.00 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	28636 1263870	54192	133234	239734	543659	2.00 80.0	4.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	35583 1755810	63707	184598	372751	810830	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobromomethane	FB	Ave	15792 838375	28630	78904	165041	368158	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	14135 675428	25160	65577	130275	286067	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	57099 2891871	104147	281139	590807	1267908	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	44989 2201888	77545	217403	448965	980807	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	46530 2171419	74331	241930	422508	945371	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	44402 2262788	77323	222104	446209	991205	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	26904 1774300	46932	156187	321893	749090	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	CBNZ d5	Ave	15589 589150	27749	77713	133908	295408	25.0 1000	50.0	125	250	500
1,2-Dichloroethane	FB	Ave	44758 2309651	81990	214343	455368	1015267	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 12:44 Calibration End Date: 03/08/2017 14:37 Calibration ID: 38704

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	129125 6918202	241503	637988	1343892	2969233	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	8718 343558	15065	43559	63772	143041	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	34537 1778305	59847	169059	348834	764731	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	41669 2050442	69380	232514	383398	878670	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	30377 1663791	57397	152575	322351	704128	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	16586 917348	31816	88313	176838	386533	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Qua	2587 116582	6725	20473	44375	79282	20.0 800	40.0	100	200	400
Dichlorobromomethane	FB	Ave	33550 2015284	62823	171087	372977	838641	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	35456 1800056	61506	167040	343680	751629	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	43878 2627386	82163	226899	487232	1112040	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	46362 2531392	85578	227674	447803	1028550	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	140179 7670309	251559	669004	1413232	3161611	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	39616 2377789	72936	200046	428890	975542	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	32683 1944268	60988	165866	346675	785209	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	24357 1286816	38269	113977	242173	538176	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	27655 1367202	43713	122213	252946	559249	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	45276 2385046	83013	217041	447773	996459	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	29906 2090969	66318	179549	347294	820495	2.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	17596 1300351	34801	103468	221344	511374	1.00 40.0	2.00	5.00	10.0	20.0
Ethylene Dibromide	CBNZ d5	Ave	23036 1220669	41627	112009	226268	508991	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	80929 4250059	148159	399905	837815	1840285	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 12:44 Calibration End Date: 03/08/2017 14:37 Calibration ID: 38704

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	21776 1465089	45937	125326	267966	613992	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	45524 2417103	83032	214981	457166	1012819	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	52620 2992943	97217	266398	553387	1233929	1.00 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBNZ d5	Ave	53012 2808482	91362	255166	529136	1183214	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	86644 5076753	155315	437133	910685	2086394	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Ave	7738 627338	15869	45432	99059	237788	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	116003 6598153	211483	600458	1254111	2799420	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	22160 1267895	42764	115020	238558	526826	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	32472 1726976	58958	156111	326392	727678	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	7281 432223	15408	42158	79629	184350	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Lin1	2985 304034	6205	18101	42866	104150	1.00 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	31365 1762835	59178	155529	330542	746182	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	27503 1540683	52404	136593	290732	648373	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	82496 5071646	152571	438659	929489	2096663	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	29908 1722853	53951	144765	310871	699588	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCBd 4	Ave	79868 4131836	129077	370041	778562	1708417	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	86099 5200467	157535	458105	948863	2171058	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	91958 5437627	164877	486346	1000673	2252586	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	49904 2835163	94855	251162	528298	1200800	1.00 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	74996 4640330	141952	398361	843561	1942831	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	53623 2966675	98047	260532	543362	1239608	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 12:44 Calibration End Date: 03/08/2017 14:37 Calibration ID: 38704

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	59088 3476036	111136	317511	667231	1486846	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	44448 2539775	82905	225627	475656	1065515	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2435 143793	4273	14370	28721	62410	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	18966 903084	37648	98378	191011	422703	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Ave	9050 357421	14054	41313	84040	175945	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	44669 2155143	83916	224158	453891	979933	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	16934 775319	33660	83425	170773	352173	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	26526 1476593	53117	137172	285611	618489	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	33535 1934131	65489	177051	369820	800895	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	107132 6269680	211084	551265	1166789	2493627	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	32893 1905142	64851	166317	352464	774180	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 15:23 Calibration End Date: 03/08/2017 17:17 Calibration ID: 38706

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-269659/13	UXJ0671.D
Level 2	STD2 240-269659/12	UXJ0670.D
Level 3	STD3 240-269659/11	UXJ0669.D
Level 4	STD4 240-269659/10	UXJ0668.D
Level 5	STD5 240-269659/9	UXJ0667.D
Level 6	STD6 240-269659/8	UXJ0666A.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0244 0.0206	0.0221	0.0237	0.0210	0.0204	Ave		0.0220				7.7		20.0			
Isopropyl ether	0.3068 0.2783	0.2585	0.3252	0.2817	0.2664	Ave		0.2861				8.8		20.0			
2-Chloro-1,3-butadiene	0.5340 0.4937	0.4697	0.5626	0.4928	0.4747	Ave		0.5046				7.2		20.0			
Tert-butyl ethyl ether	0.9280 0.8995	0.8382	0.9840	0.8998	0.8334	Ave		0.8972				6.3		20.0			
Ethyl acetate	0.2549 0.2298	0.2169	0.2361	0.2198	0.2123	Ave		0.2283				6.9		20.0			
Propionitrile	0.0227 0.0252	0.0239	0.0259	0.0244	0.0235	Ave		0.0243				4.7		20.0			
Methacrylonitrile	0.1556 0.1657	0.1409	0.1662	0.1534	0.1492	Ave		0.1552				6.3		20.0			
Tert-amyl methyl ether	0.8385 0.8530	0.7280	0.8768	0.7987	0.7745	Ave		0.8116				6.8		20.0			
n-Butanol	0.0061 0.0039	0.0070	0.0056	0.0061	0.0056	Ave		0.0057				17.8		20.0			
Ethyl acrylate	0.3040 0.3169	0.2710	0.3073	0.2993	0.2947	Ave		0.2989				5.2		20.0			
Methyl methacrylate	0.2422 0.2425	0.2075	0.2379	0.2237	0.2244	Ave		0.2297				6.0		20.0			
2-Nitropropane	0.0529 0.0582	0.0453	0.0526	0.0548	0.0517	Ave		0.0526				8.1		20.0			
n-Butyl acetate	0.3542 0.3631	0.3205	0.3628	0.3359	0.3390	Ave		0.3459				4.9		20.0			
1-Chlorohexane	0.4764 0.4502	0.4329	0.4813	0.4221	0.4348	Ave		0.4496				5.4		20.0			
Cyclohexanone	0.0160 0.0098	0.0166	0.0163	0.0149	0.0140	Ave		0.0146				17.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 15:23 Calibration End Date: 03/08/2017 17:17 Calibration ID: 38706

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1398 0.1784	0.1136	0.1563	0.1521	0.1583	Lin1	-0.141	0.1717							0.9950		0.9900
1,2,3-Trimethylbenzene	2.5349 2.6443	2.2214	2.8208	2.4366	2.4177	Ave		2.5126				8.2		20.0			
Benzyl chloride	0.1982 0.3075	0.1960	0.2324	0.2492	0.2745	Lin1	-0.168	0.2954							0.9940		0.9900
1,3,5-Trichlorobenzene	0.7023 0.6540	0.6007	0.7358	0.6283	0.6174	Ave		0.6564				8.0		20.0			
2-Methylnaphthalene	0.7617 0.8122	0.7665	0.8282	0.8242	0.7811	Ave		0.7957				3.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 15:23 Calibration End Date: 03/08/2017 17:17 Calibration ID: 38706

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-269659/13	UXJ0671.D
Level 2	STD2 240-269659/12	UXJ0670.D
Level 3	STD3 240-269659/11	UXJ0669.D
Level 4	STD4 240-269659/10	UXJ0668.D
Level 5	STD5 240-269659/9	UXJ0667.D
Level 6	STD6 240-269659/8	UXJ0666A.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	22831 935713	45514	112603	224194	457934	10.0 400	20.0	50.0	100	200
Isopropyl ether	FB	Ave	28653 1265405	53306	154203	301391	596564	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	49878 2244610	96870	266768	527354	1063142	1.00 40.0	2.00	5.00	10.0	20.0
Tert-butyl ethyl ether	FB	Ave	86676 4089575	172876	466562	962825	1866359	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl acetate	FB	Ave	47625 2089473	89468	223870	470467	950669	2.00 80.0	4.00	10.0	20.0	40.0
Propionitrile	FB	Ave	21242 1145388	49353	122765	261328	526981	10.0 400	20.0	50.0	100	200
Methacrylonitrile	FB	Ave	145312 7532540	290628	788067	1641348	3341130	10.0 400	20.0	50.0	100	200
Tert-amyl methyl ether	FB	Ave	78318 3877956	150133	415735	854671	1734384	1.00 40.0	2.00	5.00	10.0	20.0
n-Butanol	CBNZ d5	Ave	10602 308020	25773	48409	119284	219417	25.0 1000	50.0	125	250	500
Ethyl acrylate	FB	Ave	28393 1440845	55891	145720	320216	659966	1.00 40.0	2.00	5.00	10.0	20.0
Methyl methacrylate	FB	Ave	45248 2205049	85609	225648	478658	1004994	2.00 80.0	4.00	10.0	20.0	40.0
2-Nitropropane	FB	Ave	9889 528864	18677	49862	117183	231538	2.00 80.0	4.00	10.0	20.0	40.0
n-Butyl acetate	FB	Ave	33080 1650770	66109	172039	359433	759142	1.00 40.0	2.00	5.00	10.0	20.0
1-Chlorohexane	CBNZ d5	Ave	32857 1407305	63884	167738	328548	686784	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexanone	DCBd 4	Ave	4634 133062	11130	24942	50994	98594	10.0 400	20.0	50.0	100	200
Pentachloroethane	CBNZ d5	Lin1	19284 1115443	33531	108940	236808	500260	2.00 80.0	4.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76566-1 Analy Batch No.: 269659

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 15:23 Calibration End Date: 03/08/2017 17:17 Calibration ID: 38706

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	73212 3598453	149344	432162	834871	1700319	1.00 40.0	2.00	5.00	10.0	20.0
Benzyl chloride	DCBd 4	Lin1	5724 418512	13175	35611	85378	193060	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	20283 889947	40385	112725	215272	434180	1.00 40.0	2.00	5.00	10.0	20.0
2-Methylnaphthalene	DCBd 4	Ave	44000 2210617	103066	253760	564787	1098672	2.00 80.0	4.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab Sample ID: ICV 240-269659/20 Calibration Date: 03/08/2017 15:00

Instrument ID: A3UX11 Calib Start Date: 03/08/2017 12:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 14:37

Lab File ID: UXJ0665A.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2141	0.2217	0.1000	0.0104	0.0100	3.5	20.0
Chloromethane	Ave	0.2502	0.2781	0.1000	0.0111	0.0100	11.2	20.0
Vinyl chloride	Ave	0.2549	0.2801	0.1000	0.0110	0.0100	9.9	20.0
Butadiene	Ave	0.2571	0.2684		0.0104	0.0100	4.4	30.0
Bromomethane	Ave	0.1127	0.1181	0.0500	0.0105	0.0100	4.8	20.0
Chloroethane	Ave	0.1118	0.1314	0.0500	0.0118	0.0100	17.6	20.0
Dichlorofluoromethane	Ave	0.2813	0.3066		0.0109	0.0100	9.0	20.0
Trichlorofluoromethane	Ave	0.2694	0.2697	0.1000	0.0100	0.0100	0.0	20.0
Ethyl ether	Ave	0.2458	0.2794		0.0114	0.0100	13.7	20.0
Acrolein	Ave	0.0306	0.0420		0.0686	0.0500	37.2	50.0
1,1-Dichloroethene	Ave	0.2866	0.3054	0.1000	0.0107	0.0100	6.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1374	0.1455	0.0500	0.0106	0.0100	5.9	20.0
Acetone	Ave	0.1129	0.0657	0.0100	0.0116	0.0200	-41.9	50.0
Iodomethane	Ave	0.4096	0.4458		0.0109	0.0100	8.8	20.0
Carbon disulfide	Ave	0.7208	0.8049	0.1000	0.0112	0.0100	11.7	20.0
3-Chloro-1-propene	Ave	0.2104	0.2290		0.0109	0.0100	8.8	20.0
Methyl acetate	Ave	0.1724	0.1831	0.1000	0.0531	0.0500	6.2	20.0
Methylene Chloride	Ave	0.3347	0.3322	0.1000	0.00993	0.0100	-0.7	50.0
2-Methyl-2-propanol	Ave	0.0154	0.0132		0.0858	0.100	-14.2	50.0
Acrylonitrile	Ave	0.0809	0.0872		0.108	0.100	7.8	20.0
Methyl tert-butyl ether	Ave	0.8079	0.9100	0.1000	0.0113	0.0100	12.6	20.0
trans-1,2-Dichloroethene	Ave	0.3204	0.3470	0.1000	0.0108	0.0100	8.3	20.0
Hexane	Ave	0.0714	0.0701		0.00982	0.0100	-1.8	20.0
1,1-Dichloroethane	Ave	0.5549	0.5789	0.2000	0.0104	0.0100	4.3	20.0
Vinyl acetate	Ave	0.5453	0.6208		0.0114	0.0100	13.8	50.0
cis-1,2-Dichloroethene	Ave	0.3400	0.3641	0.1000	0.0107	0.0100	7.1	20.0
2,2-Dichloropropane	Ave	0.3311	0.3487		0.0105	0.0100	5.3	20.0
2-Butanone (MEK)	Ave	0.1215	0.0935	0.0100	0.0154	0.0200	-23.1*	20.0
Chlorobromomethane	Ave	0.1485	0.1594		0.0107	0.0100	7.3	20.0
Tetrahydrofuran	Ave	0.0616	0.0678		0.0220	0.0200	10.1	20.0
Chloroform	Ave	0.5269	0.5575	0.2000	0.0106	0.0100	5.8	20.0
1,1,1-Trichloroethane	Ave	0.4040	0.4274	0.1000	0.0106	0.0100	5.8	20.0
Cyclohexane	Ave	0.4041	0.4252	0.1000	0.0105	0.0100	5.2	20.0
1,1-Dichloropropene	Ave	0.4065	0.4400		0.0108	0.0100	8.2	20.0
Carbon tetrachloride	Ave	0.2830	0.3092	0.1000	0.0109	0.0100	9.3	20.0
Isobutyl alcohol	Ave	0.0073	0.0061		0.209	0.250	-16.5	20.0
1,2-Dichloroethane	Ave	0.4129	0.4327	0.1000	0.0105	0.0100	4.8	20.0
Benzene	Ave	1.216	1.290	0.5000	0.0106	0.0100	6.0	20.0
n-Heptane	Ave	0.0696	0.0600		0.00862	0.0100	-13.8	20.0
Trichloroethene	Ave	0.3151	0.3336	0.1500	0.0106	0.0100	5.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab Sample ID: ICV 240-269659/20 Calibration Date: 03/08/2017 15:00

Instrument ID: A3UX11 Calib Start Date: 03/08/2017 12:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 14:37

Lab File ID: UXJ0665A.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3753	0.3682	0.1000	0.00981	0.0100	-1.9	20.0
1,2-Dichloropropane	Ave	0.2898	0.3072	0.1000	0.0106	0.0100	6.0	20.0
Dibromomethane	Ave	0.1608	0.1623		0.0101	0.0100	0.9	20.0
1,4-Dioxane	Qua		0.0009		0.0896	0.200	-55.2*	50.0
Dichlorobromomethane	Ave	0.3324	0.3571	0.1500	0.0107	0.0100	7.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1581	0.1701		0.0108	0.0100	7.6	20.0
cis-1,3-Dichloropropene	Ave	0.4364	0.4640	0.1500	0.0106	0.0100	6.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2144	0.2248	0.0500	0.0210	0.0200	4.8	20.0
Toluene	Ave	1.825	1.883	0.4000	0.0103	0.0100	3.1	20.0
trans-1,3-Dichloropropene	Ave	0.5459	0.5727	0.1000	0.0105	0.0100	4.9	20.0
Ethyl methacrylate	Ave	0.4475	0.4978		0.0111	0.0100	11.2	20.0
1,1,2-Trichloroethane	Ave	0.3061	0.3386	0.1000	0.0111	0.0100	10.6	20.0
Tetrachloroethene	Ave	0.3310	0.3407	0.1500	0.0103	0.0100	2.9	20.0
1,3-Dichloropropane	Ave	0.5839	0.5970		0.0102	0.0100	2.2	20.0
2-Hexanone	Ave	0.2316	0.2070	0.0500	0.0179	0.0200	-10.6	20.0
Chlorodibromomethane	Ave	0.2761	0.3022		0.0109	0.0100	9.4	20.0
Ethylene Dibromide	Ave	0.2972	0.3133		0.0105	0.0100	5.4	20.0
Chlorobenzene	Ave	1.062	1.124	0.3000	0.0106	0.0100	5.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3347	0.3714		0.0111	0.0100	11.0	20.0
Ethylbenzene	Ave	0.5885	0.6134		0.0104	0.0100	4.2	20.0
m-Xylene & p-Xylene	Ave	0.7093	0.7290		0.0103	0.0100	2.8	20.0
o-Xylene	Ave	0.6806	0.7093		0.0104	0.0100	4.2	20.0
Styrene	Ave	1.173	1.231	0.3000	0.0105	0.0100	4.9	20.0
Bromoform	Ave	0.1260	0.1351	0.1000	0.0107	0.0100	7.2	20.0
Isopropylbenzene	Ave	1.581	1.685	0.1000	0.0107	0.0100	6.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6600	0.7190	0.3000	0.0109	0.0100	8.9	20.0
Bromobenzene	Ave	0.9141	0.9540		0.0104	0.0100	4.4	20.0
1,2,3-Trichloropropane	Ave	0.2290	0.2521		0.0110	0.0100	10.1	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1333		0.00984	0.0100	-1.6	20.0
N-Propylbenzene	Ave	0.9176	0.9606		0.0105	0.0100	4.7	20.0
2-Chlorotoluene	Ave	0.8050	0.8338		0.0104	0.0100	3.6	20.0
1,3,5-Trimethylbenzene	Ave	2.527	2.666		0.0106	0.0100	5.5	20.0
4-Chlorotoluene	Ave	0.8639	0.8780		0.0102	0.0100	1.6	20.0
tert-Butylbenzene	Ave	2.154	2.168		0.0101	0.0100	0.6	20.0
1,2,4-Trimethylbenzene	Ave	2.612	2.677		0.0102	0.0100	2.5	20.0
sec-Butylbenzene	Ave	2.748	2.796		0.0102	0.0100	1.8	20.0
1,3-Dichlorobenzene	Ave	1.472	1.505	0.6000	0.0102	0.0100	2.2	20.0
4-Isopropyltoluene	Ave	2.315	2.393		0.0103	0.0100	3.4	20.0
1,4-Dichlorobenzene	Ave	1.534	1.571	0.5000	0.0102	0.0100	2.4	20.0
n-Butylbenzene	Ave	1.802	1.823		0.0101	0.0100	1.2	20.0
1,2-Dichlorobenzene	Ave	1.312	1.399	0.4000	0.0107	0.0100	6.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab Sample ID: ICV 240-269659/20 Calibration Date: 03/08/2017 15:00

Instrument ID: A3UX11 Calib Start Date: 03/08/2017 12:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 14:37

Lab File ID: UXJ0665A.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0756	0.0866	0.0500	0.0115	0.0100	14.6	50.0
1,2,4-Trichlorobenzene	Ave	0.5403	0.5530	0.2000	0.0102	0.0100	2.4	50.0
Hexachlorobutadiene	Ave	0.2270	0.2047		0.00902	0.0100	-9.8	20.0
Naphthalene	Ave	1.254	1.357		0.0108	0.0100	8.3	50.0
1,2,3-Trichlorobenzene	Ave	0.4705	0.4957		0.0105	0.0100	5.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2584	0.2455		0.0114	0.0120	-5.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3310	0.3076		0.0111	0.0120	-7.1	20.0
Toluene-d8 (Surr)	Ave	1.477	1.381		0.0112	0.0120	-6.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4512	0.4171		0.0111	0.0120	-7.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab Sample ID: ICV 240-269659/21 Calibration Date: 03/08/2017 17:39

Instrument ID: A3UX11 Calib Start Date: 03/08/2017 15:23

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 17:17

Lab File ID: UXJ0672.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0220	0.0190		0.0862	0.100	-13.8	20.0
Isopropyl ether	Ave	0.2861	0.3019		0.0106	0.0100	5.5	20.0
2-Chloro-1,3-butadiene	Ave	0.5046	0.5119		0.0101	0.0100	1.4	20.0
Tert-butyl ethyl ether	Ave	0.8972	0.9102		0.0101	0.0100	1.5	20.0
Ethyl acetate	Ave	0.2283	0.2147		0.0188	0.0200	-6.0	50.0
Propionitrile	Ave	0.0243	0.0236		0.0972	0.100	-2.8	20.0
Methacrylonitrile	Ave	0.1552	0.1489		0.0959	0.100	-4.1	20.0
Tert-amyl methyl ether	Ave	0.8116	0.8174		0.0101	0.0100	0.7	20.0
n-Butanol	Ave	0.0057	0.0030		0.132	0.250	-47.1*	20.0
Ethyl acrylate	Ave	0.2989	0.2853		0.00955	0.0100	-4.5	20.0
Methyl methacrylate	Ave	0.2297	0.2272		0.0198	0.0200	-1.1	20.0
2-Nitropropane	Ave	0.0526	0.0498		0.0189	0.0200	-5.4	20.0
n-Butyl acetate	Ave	0.3459	0.3340		0.00966	0.0100	-3.4	30.0
1-Chlorohexane	Ave	0.4496	0.4395		0.00977	0.0100	-2.3	20.0
Cyclohexanone	Ave	0.0146	0.0077		0.0528	0.100	-47.2*	20.0
Pentachloroethane	Lin1		0.1588		0.0193	0.0200	-3.4	20.0
1,2,3-Trimethylbenzene	Ave	2.513	2.536		0.0101	0.0100	0.9	20.0
Benzyl chloride	Lin1		0.2378		0.00862	0.0100	-13.8	20.0
1,3,5-Trichlorobenzene	Ave	0.6564	0.6310		0.00961	0.0100	-3.9	20.0
2-Methylnaphthalene	Ave	0.7957	0.6523		0.0164	0.0200	-18.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab Sample ID: ICV 240-269659/21 Calibration Date: 03/08/2017 17:39

Instrument ID: A3UX11 Calib Start Date: 03/08/2017 12:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 14:37

Lab File ID: UXJ0672.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2584	0.2307		0.0107	0.0120	-10.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3310	0.2792		0.0101	0.0120	-15.7	20.0
Toluene-d8 (Surr)	Ave	1.477	1.301		0.0105	0.0120	-11.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4512	0.3746		0.00993	0.0120	-17.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab File ID: BFB70316.D BFB Injection Date: 03/16/2017

Instrument ID: A3UX11 BFB Injection Time: 08:39

Analysis Batch No.: 270891

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.2	
75	30.0 - 60.0 % of mass 95	56.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	102.5	
175	5.0 - 9.0 % of mass 174	8.7	(8.4) 1
176	95.0 - 101.0 % of mass 174	99.8	(97.4) 1
177	5.0 - 9.0 % of mass 176	6.3	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-270891/2	UXJ0830.D	03/16/2017	09:29
	LCS 240-270891/4	UXJ0831.D	03/16/2017	09:52
	CCV 240-270891/3	UXJ0832.D	03/16/2017	10:15
	MB 240-270891/6	UXJ0834.D	03/16/2017	11:00
MRC-MW103A-030907 MS	240-76566-2 MS	UXJ0840.D	03/16/2017	13:16
MRC-MW103A-030907 MSD	240-76566-2 MSD	UXJ0841.D	03/16/2017	13:39
MRC-MW103A-030907	240-76566-2	UXJ0842.D	03/16/2017	14:02
TB-030917	240-76566-1	UXJ0843.D	03/16/2017	14:24
MRC-MW103B-030907	240-76566-3	UXJ0844.D	03/16/2017	14:47
MRC-MW58A-030907	240-76566-4	UXJ0845.D	03/16/2017	15:10
MRC-MW94B-030907	240-76566-5	UXJ0846.D	03/16/2017	15:32
MRC-DUP01-030907	240-76566-6	UXJ0847.D	03/16/2017	15:55

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab Sample ID: CCVIS 240-270891/2 Calibration Date: 03/16/2017 09:29

Instrument ID: A3UX11 Calib Start Date: 03/08/2017 12:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 14:37

Lab File ID: UXJ0830.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2141	0.2465	0.1000	0.0115	0.0100	15.1	20.0
Chloromethane	Ave	0.2502	0.2788	0.1000	0.0111	0.0100	11.5	20.0
Vinyl chloride	Ave	0.2549	0.2505	0.1000	0.00983	0.0100	-1.7	20.0
Butadiene	Ave	0.2571	0.1515		0.00589	0.0100	-41.1*	20.0
Bromomethane	Ave	0.1127	0.0881	0.0500	0.00781	0.0100	-21.9*	20.0
Chloroethane	Ave	0.1118	0.1053	0.0500	0.00942	0.0100	-5.8	20.0
Dichlorofluoromethane	Ave	0.2813	0.2899		0.0103	0.0100	3.1	20.0
Trichlorofluoromethane	Ave	0.2694	0.3016	0.1000	0.0112	0.0100	12.0	20.0
Ethyl ether	Ave	0.2458	0.2674		0.0109	0.0100	8.8	20.0
Acrolein	Ave	0.0306	0.0297		0.0485	0.0500	-3.1	50.0
1,1-Dichloroethene	Ave	0.2866	0.2715	0.1000	0.00947	0.0100	-5.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1374	0.1390	0.0500	0.0101	0.0100	1.2	20.0
Acetone	Ave	0.1129	0.0864	0.0100	0.0153	0.0200	-23.5	50.0
Iodomethane	Ave	0.4096	0.3501		0.00855	0.0100	-14.5	20.0
Carbon disulfide	Ave	0.7208	0.7474	0.1000	0.0104	0.0100	3.7	20.0
3-Chloro-1-propene	Ave	0.2104	0.2215		0.0105	0.0100	5.3	20.0
Methyl acetate	Ave	0.1724	0.1800	0.1000	0.0522	0.0500	4.4	20.0
Methylene Chloride	Ave	0.3347	0.3244	0.1000	0.00969	0.0100	-3.1	50.0
2-Methyl-2-propanol	Ave	0.0154	0.0107		0.0697	0.100	-30.3	50.0
Acrylonitrile	Ave	0.0809	0.0850		0.105	0.100	5.1	20.0
Methyl tert-butyl ether	Ave	0.8079	0.8485	0.1000	0.0105	0.0100	5.0	20.0
trans-1,2-Dichloroethene	Ave	0.3204	0.3217	0.1000	0.0100	0.0100	0.4	20.0
Hexane	Ave	0.0714	0.0730		0.0102	0.0100	2.3	20.0
1,1-Dichloroethane	Ave	0.5549	0.5649	0.2000	0.0102	0.0100	1.8	20.0
Vinyl acetate	Ave	0.5453	0.5416		0.00993	0.0100	-0.7	50.0
2-Butanone (MEK)	Ave	0.1215	0.1103	0.0100	0.0182	0.0200	-9.2	20.0
cis-1,2-Dichloroethene	Ave	0.3400	0.3428	0.1000	0.0101	0.0100	0.8	20.0
2,2-Dichloropropane	Ave	0.3311	0.3019		0.00912	0.0100	-8.8	20.0
Chlorobromomethane	Ave	0.1485	0.1534		0.0103	0.0100	3.3	20.0
Tetrahydrofuran	Ave	0.0616	0.0673		0.0219	0.0200	9.3	20.0
Chloroform	Ave	0.5269	0.5118	0.2000	0.00971	0.0100	-2.9	20.0
1,1,1-Trichloroethane	Ave	0.4040	0.3808	0.1000	0.00942	0.0100	-5.8	20.0
Cyclohexane	Ave	0.4041	0.4035	0.1000	0.00998	0.0100	-0.2	20.0
1,1-Dichloropropene	Ave	0.4065	0.4063		0.0100	0.0100	-0.0	20.0
Carbon tetrachloride	Ave	0.2830	0.3093	0.1000	0.0109	0.0100	9.3	20.0
Isobutyl alcohol	Ave	0.0073	0.0072		0.245	0.250	-1.9	20.0
1,2-Dichloroethane	Ave	0.4129	0.3922	0.1000	0.00950	0.0100	-5.0	20.0
Benzene	Ave	1.216	1.213	0.5000	0.00997	0.0100	-0.3	20.0
n-Heptane	Ave	0.0696	0.0631		0.00907	0.0100	-9.3	20.0
Trichloroethene	Ave	0.3151	0.3103	0.1500	0.00985	0.0100	-1.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab Sample ID: CCVIS 240-270891/2 Calibration Date: 03/16/2017 09:29

Instrument ID: A3UX11 Calib Start Date: 03/08/2017 12:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 14:37

Lab File ID: UXJ0830.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3753	0.3523	0.1000	0.00939	0.0100	-6.1	20.0
1,2-Dichloropropane	Ave	0.2898	0.2976	0.1000	0.0103	0.0100	2.7	20.0
Dibromomethane	Ave	0.1608	0.1579		0.00982	0.0100	-1.8	20.0
1,4-Dioxane	Qua		0.0008		0.0812	0.200	-59.4*	50.0
Dichlorobromomethane	Ave	0.3324	0.3425	0.1500	0.0103	0.0100	3.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1581	0.1638		0.0207	0.0200	3.6	20.0
cis-1,3-Dichloropropene	Ave	0.4364	0.4305	0.1500	0.00986	0.0100	-1.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2144	0.2139	0.0500	0.0200	0.0200	-0.2	20.0
Toluene	Ave	1.825	1.827	0.4000	0.0100	0.0100	0.0	20.0
trans-1,3-Dichloropropene	Ave	0.5459	0.5254	0.1000	0.00962	0.0100	-3.8	20.0
Ethyl methacrylate	Ave	0.4475	0.4564		0.0102	0.0100	2.0	20.0
1,1,2-Trichloroethane	Ave	0.3061	0.3190	0.1000	0.0104	0.0100	4.2	20.0
1,3-Dichloropropane	Ave	0.5839	0.5648		0.00967	0.0100	-3.3	20.0
Tetrachloroethene	Ave	0.3310	0.3227	0.1500	0.00975	0.0100	-2.5	20.0
2-Hexanone	Ave	0.2316	0.2322	0.0500	0.0200	0.0200	0.2	20.0
Chlorodibromomethane	Ave	0.2761	0.3234		0.0117	0.0100	17.1	20.0
Ethylene Dibromide	Ave	0.2972	0.2977		0.0100	0.0100	0.2	20.0
Chlorobenzene	Ave	1.062	1.062	0.3000	0.0100	0.0100	0.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3347	0.3478		0.0104	0.0100	3.9	20.0
Ethylbenzene	Ave	0.5885	0.5796		0.00985	0.0100	-1.5	20.0
m-Xylene & p-Xylene	Ave	0.7093	0.6699		0.00944	0.0100	-5.6	20.0
o-Xylene	Ave	0.6806	0.6515		0.00957	0.0100	-4.3	20.0
Styrene	Ave	1.173	1.140	0.3000	0.00972	0.0100	-2.8	20.0
Bromoform	Ave	0.1260	0.1718	0.1000	0.0136	0.0100	36.3*	20.0
Isopropylbenzene	Ave	1.581	1.545	0.1000	0.00977	0.0100	-2.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6600	0.6927	0.3000	0.0105	0.0100	5.0	20.0
Bromobenzene	Ave	0.9141	0.9137		0.0100	0.0100	-0.0	20.0
1,2,3-Trichloropropane	Ave	0.2290	0.2269		0.00991	0.0100	-0.9	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1386		0.0102	0.0100	2.1	20.0
N-Propylbenzene	Ave	0.9176	0.9188		0.0100	0.0100	0.1	20.0
2-Chlorotoluene	Ave	0.8050	0.8203		0.0102	0.0100	1.9	20.0
1,3,5-Trimethylbenzene	Ave	2.527	2.528		0.0100	0.0100	0.0	20.0
4-Chlorotoluene	Ave	0.8639	0.8204		0.00950	0.0100	-5.0	20.0
tert-Butylbenzene	Ave	2.154	2.147		0.00996	0.0100	-0.4	20.0
1,2,4-Trimethylbenzene	Ave	2.612	2.602		0.00996	0.0100	-0.4	20.0
sec-Butylbenzene	Ave	2.748	2.783		0.0101	0.0100	1.3	20.0
1,3-Dichlorobenzene	Ave	1.472	1.475	0.6000	0.0100	0.0100	0.2	20.0
4-Isopropyltoluene	Ave	2.315	2.376		0.0103	0.0100	2.6	20.0
1,4-Dichlorobenzene	Ave	1.534	1.500	0.5000	0.00978	0.0100	-2.2	20.0
n-Butylbenzene	Ave	1.802	1.839		0.0102	0.0100	2.0	20.0
1,2-Dichlorobenzene	Ave	1.312	1.308	0.4000	0.00998	0.0100	-0.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab Sample ID: CCVIS 240-270891/2 Calibration Date: 03/16/2017 09:29

Instrument ID: A3UX11 Calib Start Date: 03/08/2017 12:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 14:37

Lab File ID: UXJ0830.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0756	0.0849	0.0500	0.0112	0.0100	12.4	50.0
1,2,4-Trichlorobenzene	Ave	0.5403	0.5282	0.2000	0.00978	0.0100	-2.2	50.0
Hexachlorobutadiene	Ave	0.2270	0.2177		0.00959	0.0100	-4.1	20.0
Naphthalene	Ave	1.254	1.223		0.00975	0.0100	-2.5	50.0
1,2,3-Trichlorobenzene	Ave	0.4705	0.4354		0.00925	0.0100	-7.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2584	0.2220		0.0103	0.0120	-14.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3310	0.2801		0.0101	0.0120	-15.4	20.0
Toluene-d8 (Surr)	Ave	1.477	1.341		0.0109	0.0120	-9.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4512	0.3644		0.00966	0.0120	-19.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Lab Sample ID: CCV 240-270891/3 Calibration Date: 03/16/2017 10:15

Instrument ID: A3UX11 Calib Start Date: 03/08/2017 15:23

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 17:17

Lab File ID: UXJ0832.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0220	0.0215		0.0977	0.100	-2.3	20.0
Isopropyl ether	Ave	0.2861	0.3040		0.0106	0.0100	6.2	20.0
2-Chloro-1,3-butadiene	Ave	0.5046	0.4804		0.00952	0.0100	-4.8	20.0
Tert-butyl ethyl ether	Ave	0.8972	0.9614		0.0107	0.0100	7.2	20.0
Ethyl acetate	Ave	0.2283	0.2623		0.0230	0.0200	14.9	50.0
Propionitrile	Ave	0.0243	0.0294		0.121	0.100	21.1*	20.0
Methacrylonitrile	Ave	0.1552	0.1755		0.113	0.100	13.1	20.0
Tert-amyl methyl ether	Ave	0.8116	0.8641		0.0106	0.0100	6.5	20.0
n-Butanol	Ave	0.0057	0.0043		0.188	0.250	-24.6*	20.0
Ethyl acrylate	Ave	0.2989	0.3399		0.0114	0.0100	13.7	20.0
Methyl methacrylate	Ave	0.2297	0.2705		0.0236	0.0200	17.8	20.0
2-Nitropropane	Ave	0.0526	0.0511		0.0194	0.0200	-2.8	20.0
n-Butyl acetate	Ave	0.3459	0.4175		0.0121	0.0100	20.7*	20.0
1-Chlorohexane	Ave	0.4496	0.4262		0.00948	0.0100	-5.2	20.0
Cyclohexanone	Ave	0.0146	0.0126		0.0863	0.100	-13.7	20.0
Pentachloroethane	Lin1		0.1655		0.0201	0.0200	0.5	
1,2,3-Trimethylbenzene	Ave	2.513	2.659		0.0106	0.0100	5.8	20.0
Benzyl chloride	Lin1		0.2566		0.00925	0.0100	-7.5	
1,3,5-Trichlorobenzene	Ave	0.6564	0.6988		0.0106	0.0100	6.5	20.0
2-Methylnaphthalene	Ave	0.7957	0.7482		0.0188	0.0200	-6.0	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Sample No.: STD8260 240-269659/4 Date Analyzed: 03/08/2017 13:29

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ0661A.D Heated Purge: (Y/N) N

Calibration ID: 38704

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1095553	5.04	777468	7.70	357308	9.94
UPPER LIMIT		2191106	5.54	1554936	8.20	714616	10.44
LOWER LIMIT		547777	4.54	388734	7.20	178654	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-269659/20		1020521	5.04	727325	7.70	341110	9.94
ICV 240-269659/21		994001	5.04	715931	7.70	316924	9.94
CCVIS 240-270891/2		756568	5.03	526498	7.70	234422	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Sample No.: CCVIS 240-270891/2 Date Analyzed: 03/16/2017 09:29

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ0830.D Heated Purge: (Y/N) N

Calibration ID: 38708

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		756568	5.03	526498	7.70	234422	9.94
UPPER LIMIT		1513136	5.53	1052996	8.20	468844	10.44
LOWER LIMIT		378284	4.53	263249	7.20	117211	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-270891/4		682128	5.04	503357	7.69	241257	9.94
CCV 240-270891/3		615153	5.04	451966	7.70	198441	9.94
MB 240-270891/6		651414	5.03	486442	7.70	221504	9.94
240-76566-2 MS	MRC-MW103A-030907 MS	657789	5.03	498799	7.70	231222	9.94
240-76566-2 MSD	MRC-MW103A-030907 MSD	659507	5.03	493566	7.69	233125	9.94
240-76566-2	MRC-MW103A-030907	647625	5.03	477648	7.69	213023	9.94
240-76566-1	TB-030917	630007	5.04	469535	7.69	215082	9.94
240-76566-3	MRC-MW103B-030907	630983	5.03	475123	7.69	213917	9.94
240-76566-4	MRC-MW58A-030907	637518	5.03	469046	7.70	216551	9.94
240-76566-5	MRC-MW94B-030907	616367	5.04	460215	7.69	211772	9.94
240-76566-6	MRC-DUP01-030907	610198	5.04	460943	7.70	205486	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Instrument ID: A3UX11 Start Date: 03/08/2017 08:48

Analysis Batch Number: 269659 End Date: 03/08/2017 19:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-269659/1		03/08/2017 08:48	1	BFB70308.D	DB-624 0.18(mm)
STD8260 240-269659/2 IC		03/08/2017 12:44	1	UXJ0659A.D	DB-624 0.18(mm)
STD8260 240-269659/3 IC		03/08/2017 13:06	1	UXJ0660A.D	DB-624 0.18(mm)
STD8260 240-269659/4 ICIS		03/08/2017 13:29	1	UXJ0661A.D	DB-624 0.18(mm)
STD8260 240-269659/5 IC		03/08/2017 13:52	1	UXJ0662A.D	DB-624 0.18(mm)
STD8260 240-269659/6 IC		03/08/2017 14:15	1	UXJ0663A.D	DB-624 0.18(mm)
STD8260 240-269659/7 IC		03/08/2017 14:37	1	UXJ0664A.D	DB-624 0.18(mm)
ICV 240-269659/20		03/08/2017 15:00	1	UXJ0665A.D	DB-624 0.18(mm)
STD6 240-269659/8 IC		03/08/2017 15:23	1	UXJ0666A.D	DB-624 0.18(mm)
STD5 240-269659/9 IC		03/08/2017 15:46	1	UXJ0667.D	DB-624 0.18(mm)
STD4 240-269659/10 IC		03/08/2017 16:08	1	UXJ0668.D	DB-624 0.18(mm)
STD3 240-269659/11 IC		03/08/2017 16:31	1	UXJ0669.D	DB-624 0.18(mm)
STD2 240-269659/12 IC		03/08/2017 16:54	1	UXJ0670.D	DB-624 0.18(mm)
STD1 240-269659/13 IC		03/08/2017 17:17	1	UXJ0671.D	DB-624 0.18(mm)
ICV 240-269659/21		03/08/2017 17:39	1	UXJ0672.D	DB-624 0.18(mm)
STD1THTL6 240-269659/14 IC		03/08/2017 18:02	1		DB-624 0.18(mm)
STD2THTL5 240-269659/15 IC		03/08/2017 18:24	1		DB-624 0.18(mm)
STD3THTL4 240-269659/16 IC		03/08/2017 18:47	1		DB-624 0.18(mm)
STD4THTL3 240-269659/17 IC		03/08/2017 19:10	1		DB-624 0.18(mm)
STD5THTL2 240-269659/18 IC		03/08/2017 19:33	1		DB-624 0.18(mm)
STD6THTL1 240-269659/19 IC		03/08/2017 19:55	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76566-1

SDG No.:

Instrument ID: A3UX11 Start Date: 03/16/2017 08:39

Analysis Batch Number: 270891 End Date: 03/16/2017 19:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-270891/1		03/16/2017 08:39	1	BFB70316.D	DB-624 0.18(mm)
CCVIS 240-270891/2		03/16/2017 09:29	1	UXJ0830.D	DB-624 0.18(mm)
LCS 240-270891/4		03/16/2017 09:52	1	UXJ0831.D	DB-624 0.18(mm)
CCV 240-270891/3		03/16/2017 10:15	1	UXJ0832.D	DB-624 0.18(mm)
ZZZZZ		03/16/2017 10:38	1		DB-624 0.18(mm)
MB 240-270891/6		03/16/2017 11:00	1	UXJ0834.D	DB-624 0.18(mm)
240-76566-2 MS		03/16/2017 13:16	1	UXJ0840.D	DB-624 0.18(mm)
240-76566-2 MSD		03/16/2017 13:39	1	UXJ0841.D	DB-624 0.18(mm)
240-76566-2		03/16/2017 14:02	1	UXJ0842.D	DB-624 0.18(mm)
240-76566-1		03/16/2017 14:24	1	UXJ0843.D	DB-624 0.18(mm)
240-76566-3		03/16/2017 14:47	1	UXJ0844.D	DB-624 0.18(mm)
240-76566-4		03/16/2017 15:10	1	UXJ0845.D	DB-624 0.18(mm)
240-76566-5		03/16/2017 15:32	1	UXJ0846.D	DB-624 0.18(mm)
240-76566-6		03/16/2017 15:55	1	UXJ0847.D	DB-624 0.18(mm)
ZZZZZ		03/16/2017 16:18	1		DB-624 0.18(mm)
ZZZZZ		03/16/2017 16:41	1		DB-624 0.18(mm)
ZZZZZ		03/16/2017 17:03	1		DB-624 0.18(mm)
ZZZZZ		03/16/2017 17:26	1		DB-624 0.18(mm)
ZZZZZ		03/16/2017 17:49	1		DB-624 0.18(mm)
ZZZZZ		03/16/2017 18:11	1		DB-624 0.18(mm)
ZZZZZ		03/16/2017 18:34	1		DB-624 0.18(mm)
ZZZZZ		03/16/2017 18:57	1		DB-624 0.18(mm)
ZZZZZ		03/16/2017 19:20	1		DB-624 0.18(mm)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW58A-030907	240-76566-4	85
	MB 200-114882/1-A	85
	LCS 200-114882/2-A	89
	LCSD 200-114882/3-A	87

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24334_02.D

Lab ID: LCS 200-114882/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	0.200	0.172 J	86	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24334_03.D

Lab ID: LCSD 200-114882/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	0.200	0.185 J	92	7	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Lab File ID: Z24334_04.D Lab Sample ID: MB 200-114882/1-A

Matrix: Water Date Extracted: 03/13/2017 19:00

Instrument ID: CHZ.i Date Analyzed: 03/15/2017 13:45

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-114882/2-A	Z24334_02.D	03/15/2017 13:10
	LCSD 200-114882/3-A	Z24334_03.D	03/15/2017 13:27
MRC-MW58A-030907	240-76566-4	Z24334_18.D	03/15/2017 17:46

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76566-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-114882/1-A

Matrix: Water | Lab File ID: Z24334_04.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 03/13/2017 19:00

Sample wt/vol: 100(mL) | Date Analyzed: 03/15/2017 13:45

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 114936 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	85		46-130

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Lab File ID: Z24230_01.D BFB Injection Date: 03/08/2017

Instrument ID: CHZ.i BFB Injection Time: 10:08

Analysis Batch No.: 114713

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 80.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.3	
175	5.0 - 9.0 % of mass 174	4.9	(7.2) 1
176	>95.0 but <101.0 % of mass 174	66.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-114713/2	Z24230_02.D	03/08/2017	10:20
	IC 200-114713/3	Z24230_03.D	03/08/2017	10:37
	IC 200-114713/4	Z24230_04.D	03/08/2017	10:54
	ICIS 200-114713/5	Z24230_05.D	03/08/2017	11:12
	IC 200-114713/6	Z24230_06.D	03/08/2017	11:29
	IC 200-114713/7	Z24230_07.D	03/08/2017	11:46
	IC 200-114713/8	Z24230_08.D	03/08/2017	12:03
	ICV 200-114713/9	Z24230_09.D	03/08/2017	12:21
	CCVL 200-114713/10	Z24230_10.D	03/08/2017	13:29
	CCVL 200-114936/1	Z24334_01.D	03/15/2017	12:53
	LCS 200-114882/2-A	Z24334_02.D	03/15/2017	13:10
	LCSD 200-114882/3-A	Z24334_03.D	03/15/2017	13:27
	MB 200-114882/1-A	Z24334_04.D	03/15/2017	13:45
	CCV 200-114936/15	Z24334_15.D	03/15/2017	16:54
MRC-MW58A-030907	240-76566-4	Z24334_18.D	03/15/2017	17:46
	CCV 200-114936/23	Z24334_23.D	03/15/2017	19:11

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-76566-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-76566-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	2773 110705	6218 242998	14480	27995	48146	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	134256 141434	151964 143621	134009	136068	115570	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Lab Sample ID: ICV 200-114713/9 Calibration Date: 03/08/2017 12:21

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_09.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5752	0.0500	184	200	-7.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Lab Sample ID: CCVL 200-114713/10 Calibration Date: 03/08/2017 13:29

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_10.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7218	0.0500	11.6	10.0	15.6	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.5972	0.0500	495	500	-1.1	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Lab Sample ID: CCVL 200-114936/1 Calibration Date: 03/15/2017 12:53

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24334_01.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.4737	0.0500	7.58	10.0	-24.2	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6268	0.0500	519	500	3.8	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Lab Sample ID: CCV 200-114936/15 Calibration Date: 03/15/2017 16:54

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24334_15.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5721	0.0500	91.6	100	-8.4	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6138	0.0500	508	500	1.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Lab Sample ID: CCV 200-114936/23 Calibration Date: 03/15/2017 19:11

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24334_23.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6220	0.0500	797	800	-0.4	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6126	0.0500	507	500	1.5	30.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Sample No.: ICIS 200-114713/5 Date Analyzed: 03/08/2017 11:12

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24230_05.D Heated Purge: (Y/N) N

Calibration ID: 36785

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224595	3.32				
UPPER LIMIT		336893	3.82				
LOWER LIMIT		112298	2.82				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-114713/9		202920	3.32				
CCVL 200-114713/10		249320	3.34				
CCVL 200-114936/1		273289	3.25				
LCS 200-114882/2-A		322868	3.27				
LCSD 200-114882/3-A		321926	3.28				
MB 200-114882/1-A		298605	3.25				
CCV 200-114936/15		294855	3.26				
240-76566-4	MRC-MW58A-030907	265047	3.22				
CCV 200-114936/23		287374	3.25				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-114713/1		03/08/2017 10:08	1	Z24230_01.D	Rxi-5ms 0.25(mm)
IC 200-114713/2		03/08/2017 10:20	1	Z24230_02.D	Rxi-5ms 0.25(mm)
IC 200-114713/3		03/08/2017 10:37	1	Z24230_03.D	Rxi-5ms 0.25(mm)
IC 200-114713/4		03/08/2017 10:54	1	Z24230_04.D	Rxi-5ms 0.25(mm)
ICIS 200-114713/5		03/08/2017 11:12	1	Z24230_05.D	Rxi-5ms 0.25(mm)
IC 200-114713/6		03/08/2017 11:29	1	Z24230_06.D	Rxi-5ms 0.25(mm)
IC 200-114713/7		03/08/2017 11:46	1	Z24230_07.D	Rxi-5ms 0.25(mm)
IC 200-114713/8		03/08/2017 12:03	1	Z24230_08.D	Rxi-5ms 0.25(mm)
ICV 200-114713/9		03/08/2017 12:21	1	Z24230_09.D	Rxi-5ms 0.25(mm)
CCVL 200-114713/10		03/08/2017 13:29	1	Z24230_10.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 13:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:43	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:02	1		Rxi-5ms 0.25(mm)
CCV 200-114713/23		03/08/2017 17:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:07	1		Rxi-5ms 0.25(mm)
CCV 200-114713/37		03/08/2017 21:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:42	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/09/2017 00:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:17	1		Rxi-5ms 0.25(mm)
CCV 200-114713/48		03/09/2017 00:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:51	1		Rxi-5ms 0.25(mm)
CCV 200-114713/50		03/09/2017 01:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:34	1		Rxi-5ms 0.25(mm)
CCV 200-114713/54		03/09/2017 09:50	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/15/2017 12:53

Analysis Batch Number: 114936 End Date: 03/15/2017 19:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-114936/1		03/15/2017 12:53	1	Z24334_01.D	Rxi-5ms 0.25(mm)
LCS 200-114882/2-A		03/15/2017 13:10	1	Z24334_02.D	Rxi-5ms 0.25(mm)
LCSD 200-114882/3-A		03/15/2017 13:27	1	Z24334_03.D	Rxi-5ms 0.25(mm)
MB 200-114882/1-A		03/15/2017 13:45	1	Z24334_04.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 14:02	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 14:19	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 14:36	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 14:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 15:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 15:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 15:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 16:02	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 16:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 16:37	1		Rxi-5ms 0.25(mm)
CCV 200-114936/15		03/15/2017 16:54	1	Z24334_15.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 17:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 17:28	1		Rxi-5ms 0.25(mm)
240-76566-4		03/15/2017 17:46	1	Z24334_18.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 18:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 18:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 18:37	2.22		Rxi-5ms 0.25(mm)
ZZZZZ		03/15/2017 18:54	1.538		Rxi-5ms 0.25(mm)
CCV 200-114936/23		03/15/2017 19:11	1	Z24334_23.D	Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/22/2017 15:37

Analysis Batch Number: 115085 End Date: 03/23/2017 09:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-115085/3		03/22/2017 15:37	1	Z24401_03.D	Rxi-5ms 0.25(mm)
CCVL 200-115085/4		03/22/2017 15:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:12	1		Rxi-5ms 0.25(mm)
CCV 200-115085/17		03/22/2017 19:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:09	1		Rxi-5ms 0.25(mm)
CCV 200-115085/31		03/22/2017 23:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:50	1		Rxi-5ms 0.25(mm)
CCV 200-115085/37		03/23/2017 01:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 08:57	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 09:13	2		Rxi-5ms 0.25(mm)
CCV 200-115085/40		03/23/2017 09:30	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-76566-1

SDG No.:

Batch Number: 114882 Batch Start Date: 03/13/17 19:00 Batch Analyst: Keith, Robert C

Batch Method: 3535A Batch End Date: 03/13/17 19:53

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00025		
MB 200-114882/1		3535A, 522		100 mL	2000 uL		100 uL		
LCS 200-114882/2		3535A, 522		100 mL	2000 uL	10 uL	100 uL		
LCSD 200-114882/3		3535A, 522		100 mL	2000 uL	10 uL	100 uL		
240-76566-D-4	MRC-MW58A-030907	3535A, 522	T	100 mL	2000 uL		100 uL		

Batch Notes	
Acid ID	1004720
Acid Name	HCl
First End time	1953
Analyst ID - Reagent Drop Witness	MAP
Solvent Lot #	1015054
Solvent Name	MeCl2
SPE Cartridge ID	8088705
First Start time	1900

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	13CDCB #
MRC-MW103A-030907	240-76566-2	82
MRC-MW103B-030907	240-76566-3	79
MRC-DUP01-030907	240-76566-6	87
	MB 680-472187/5-A	85
	LCS 680-472187/6-A	84
	240-76517-F-2-A MS	57
	240-76517-F-2-B MSD	40

	QC LIMITS
13CDCB = Decachlorobiphenyl-13C12	25-113

Column to be used to flag recovery values

FORM II 680

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc1606.D

Lab ID: LCS 680-472187/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	5.06	84	62-130	
Hexachlorobiphenyl	4.00	3.44	86	62-130	
Nonachlorobiphenyl	10.0	16.0	160	70-195	
Octachlorobiphenyl	6.00	5.18	86	64-130	
Monochlorobiphenyl	2.00	1.57	78	42-130	
DCB Decachlorobiphenyl	10.0	8.33	83	59-130	
Dichlorobiphenyl	2.00	1.66	83	49-130	
Pentachlorobiphenyl	4.00	3.35	84	63-130	
Tetrachlorobiphenyl	4.00	3.41	85	54-130	
Trichlorobiphenyl	2.00	1.68	84	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS MATRIX SPIKE RECOVERY

Sample not included in this SDG.

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc1607.D

Lab ID: 240-76517-F-2-A MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	5.98	0.030 U	3.48	58	62-130	F1
Hexachlorobiphenyl	3.99	0.015 U	2.26	57	62-130	F1
Nonachlorobiphenyl	9.97	0.048 U	10.6	106	70-195	
Octachlorobiphenyl	5.98	0.037 U	3.59	60	64-130	F1
Monochlorobiphenyl	1.99	0.0055 U	1.03	52	42-130	
DCB Decachlorobiphenyl	9.97	0.069 U	5.46	55	59-130	F1
Dichlorobiphenyl	1.99	0.0053 U	1.12	56	49-130	
Pentachlorobiphenyl	3.99	0.014 U	2.36	59	63-130	F1
Tetrachlorobiphenyl	3.99	0.013 U	2.43	61	54-130	
Trichlorobiphenyl	1.99	0.0064 U	1.15	58	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc1608.D

Lab ID: 240-76517-F-2-B MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Heptachlorobiphenyl	5.60	2.47	44	34	40	62-130	F1
Hexachlorobiphenyl	3.73	1.66	44	31	40	62-130	F1
Nonachlorobiphenyl	9.33	7.79	84	30	40	70-195	
Octachlorobiphenyl	5.60	2.56	46	34	40	64-130	F1
Monochlorobiphenyl	1.87	0.708	38	37	40	42-130	F1
DCB Decachlorobiphenyl	9.33	4.04	43	30	40	59-130	F1
Dichlorobiphenyl	1.87	0.735	39	41	40	49-130	F1 F2
Pentachlorobiphenyl	3.73	1.66	44	35	40	63-130	F1
Tetrachlorobiphenyl	3.73	1.55	42	44	40	54-130	F1 F2
Trichlorobiphenyl	1.87	0.741	40	43	40	51-130	F1 F2

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Lab File ID: xc1605.D Lab Sample ID: MB 680-472187/5-A

Matrix: Water Date Extracted: 03/13/2017 15:39

Instrument ID: CMSX Date Analyzed: 03/16/2017 12:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-472187/6-A	xc1606.D	03/16/2017 13:09
	240-76517-F-2-A MS	xc1607.D	03/16/2017 13:38
	240-76517-F-2-B MSD	xc1608.D	03/16/2017 14:08
MRC-MW103A-030907	240-76566-2	xc1611.D	03/16/2017 15:35
MRC-MW103B-030907	240-76566-3	xc1612.D	03/16/2017 16:04
MRC-DUP01-030907	240-76566-6	xc1613.D	03/16/2017 16:33

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-76566-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-472187/5-A

Matrix: Water | Lab File ID: xc1605.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 03/13/2017 15:39

Sample wt/vol: 1000(mL) | Date Analyzed: 03/16/2017 12:40

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 472745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.0054	U	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0065	U	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	85		25-113

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Lab File ID: xc0102.D DFTPP Injection Date: 03/01/2017

Instrument ID: CMSX DFTPP Injection Time: 09:09

Analysis Batch No.: 470826

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	59.1
197	Less than 1 % of mass 198	0.5
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	5.9
275	10 - 30% of mass 198	28.9
365	Greater than 1% of mass 198	5.0
441	Present but less than mass 443	15.0 (78.2) 2
442	Greater than 40% of mass 198	94.1
443	17 - 23% of mass 442	19.1 (20.3) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 680-470826/5	xc0105.D	03/01/2017	10:40
	IC 680-470826/6	xc0106.D	03/01/2017	11:09
	IC 680-470826/7	xc0107.D	03/01/2017	11:38
	IC 680-470826/8	xc0108.D	03/01/2017	12:07
	ICISAV 680-470826/18	xc0109.D	03/01/2017	12:36
	ICV 680-470826/9	xc0110.D	03/01/2017	13:05

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-76566-1 Analy Batch No.: 470826

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2017 10:40 Calibration End Date: 03/01/2017 12:36 Calibration ID: 50854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-470826/8	xc0108.D
Level 2	IC 680-470826/7	xc0107.D
Level 3	ICISAV 680-470826/18	xc0109.D
Level 4	IC 680-470826/6	xc0106.D
Level 5	IC 680-470826/5	xc0105.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8416	0.7627	0.7274	0.7606	0.8593	Ave		0.7903				7.2		20.0			
Dichlorobiphenyl	0.5708	0.5190	0.5508	0.5792	0.6622	Ave		0.5764				9.2		20.0			
Trichlorobiphenyl	0.4207	0.3956	0.3850	0.4065	0.4645	Ave		0.4144				7.5		20.0			
PCB-104			0.3635			Ave		0.3635						30.0			
Tetrachlorobiphenyl	0.3178	0.2888	0.2922	0.3061	0.3378	Ave		0.3085				6.5		20.0			
Pentachlorobiphenyl	0.2712	0.2483	0.2566	0.2684	0.2960	Ave		0.2681				6.8		20.0			
PCB-77			0.4422			Ave		0.4422						30.0			
Hexachlorobiphenyl	0.2740	0.2570	0.2623	0.2761	0.2992	Ave		0.2737				6.0		20.0			
Heptachlorobiphenyl	0.2480	0.2272	0.2314	0.2438	0.2678	Ave		0.2436				6.6		20.0			
Octachlorobiphenyl	0.2242	0.2042	0.2047	0.2209	0.2397	Ave		0.2187				6.8		20.0			
PCB-208			0.0838			Ave		0.0838						30.0			
Nonachlorobiphenyl			0.0638			Ave		0.0437				4.1		20.0			
DCB Decachlorobiphenyl	0.0450	0.0411	0.0430	0.0436	0.0457	Ave		0.0437				4.1		20.0			
gamma-BHC-13C6 (Surr)	0.1735	0.1703	0.1703	0.1835	0.1495	Ave		0.1694				7.3		50.0			
Decachlorobiphenyl-13C12	0.0541	0.0574	0.0574	0.0574	0.0609	Ave		0.0574				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Savannah Job No.: 240-76566-1 Analy Batch No.: 470826

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2017 10:40 Calibration End Date: 03/01/2017 12:36 Calibration ID: 50854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-470826/8	xc0108.D
Level 2	IC 680-470826/7	xc0107.D
Level 3	ICISAV 680-470826/18	xc0109.D
Level 4	IC 680-470826/6	xc0106.D
Level 5	IC 680-470826/5	xc0105.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Monochlorobiphenyl	CRY	Ave	3151	13342	26104	56643	163189	0.100	0.500	1.00	2.00	5.00
Dichlorobiphenyl	CRY	Ave	2137	9079	19768	43138	125759	0.100	0.500	1.00	2.00	5.00
Trichlorobiphenyl	CRY	Ave	1575	6919	13816	30274	88206	0.100	0.500	1.00	2.00	5.00
PCB-104	CRY	Ave			26087					2.00		
Tetrachlorobiphenyl	CRY	Ave	2380	10102	20971	45599	128289	0.200	1.00	2.00	4.00	10.0
Pentachlorobiphenyl	CRY	Ave	2031	8685	18421	39972	112408	0.200	1.00	2.00	4.00	10.0
PCB-77	CRY	Ave			31741					2.00		
Hexachlorobiphenyl	CRY	Ave	2052	8992	18825	41121	113658	0.200	1.00	2.00	4.00	10.0
Heptachlorobiphenyl	CRY	Ave	2786	11920	24915	54470	152551	0.300	1.50	3.00	6.00	15.0
Octachlorobiphenyl	CRY	Ave	2518	10716	22044	49361	136549	0.300	1.50	3.00	6.00	15.0
PCB-208	CRY	Ave			12030					4.00		
Nonachlorobiphenyl	CRY	Ave			11445					5.00		
DCB Decachlorobiphenyl	CRY	Ave	842	3591	7713	16249	43364	0.500	2.50	5.00	10.0	25.0
gamma-BHC-13C6 (Surr)	CRY	Ave	1299	5958	12225	27332	56781	0.200	1.00	2.00	4.00	10.0
Decachlorobiphenyl-13C12	CRY	Ave	1013	5020	10297	21381	46261	0.500	2.50	5.00	10.0	20.0

Curve Type Legend:
Ave = Average ISTD

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Lab Sample ID: ICV 680-470826/9 Calibration Date: 03/01/2017 13:05

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc0110.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.6886		0.871	1.00	-12.9	20.0
Dichlorobiphenyl	Ave	0.5764	0.4994		0.866	1.00	-13.4	20.0
Trichlorobiphenyl	Ave	0.4144	0.3972		0.958	1.00	-4.2	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.2959		1.92	2.00	-4.1	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2467		1.84	2.00	-8.0	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2514		1.84	2.00	-8.2	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2286		2.82	3.00	-6.2	20.0
Octachlorobiphenyl	Ave	0.2187	0.2104		2.89	3.00	-3.8	20.0
Nonachlorobiphenyl	Ave	0.0638	0.0837		7.66	4.00	31.2*	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0433		4.95	5.00	-0.9	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0588		5.12	5.00	2.4	20.0

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Lab File ID: xc1601.D DFTPP Injection Date: 03/16/2017

Instrument ID: CMSX DFTPP Injection Time: 10:39

Analysis Batch No.: 472745

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	58.1
197	Less than 1 % of mass 198	0.5
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.6
275	10 - 30% of mass 198	29.9
365	Greater than 1% of mass 198	5.0
441	Present but less than mass 443	16.0 (84.9) 2
442	Greater than 40% of mass 198	99.1
443	17 - 23% of mass 442	18.8 (19.0) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-472745/3	xc1603.D	03/16/2017	11:40
	CCVIS 680-472745/4	xc1604.D	03/16/2017	12:11
	MB 680-472187/5-A	xc1605.D	03/16/2017	12:40
	LCS 680-472187/6-A	xc1606.D	03/16/2017	13:09
	240-76517-F-2-A MS	xc1607.D	03/16/2017	13:38
	240-76517-F-2-B MSD	xc1608.D	03/16/2017	14:08
MRC-MW103A-030907	240-76566-2	xc1611.D	03/16/2017	15:35
MRC-MW103B-030907	240-76566-3	xc1612.D	03/16/2017	16:04
MRC-DUP01-030907	240-76566-6	xc1613.D	03/16/2017	16:33
	CCV 680-472745/23	xc1624.D	03/16/2017	21:50

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Lab Sample ID: CCVIS 680-472745/4 Calibration Date: 03/16/2017 12:11

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc1604.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.6879		0.870	1.00	-13.0	20.0
Dichlorobiphenyl	Ave	0.5764	0.5253		0.911	1.00	-8.9	20.0
Trichlorobiphenyl	Ave	0.4144	0.3650		0.881	1.00	-11.9	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.2763		1.79	2.00	-10.5	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2424		1.81	2.00	-9.6	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2465		1.80	2.00	-9.9	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2175		2.68	3.00	-10.7	20.0
Octachlorobiphenyl	Ave	0.2187	0.1993		2.73	3.00	-8.9	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0383		4.38	5.00	-12.4	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0521		4.53	5.00	-9.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Lab Sample ID: CCV 680-472745/23 Calibration Date: 03/16/2017 21:50

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc1624.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.7532		0.953	1.00	-4.7	20.0
Dichlorobiphenyl	Ave	0.5764	0.5550		0.963	1.00	-3.7	20.0
Trichlorobiphenyl	Ave	0.4144	0.3938		0.950	1.00	-5.0	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.2983		1.93	2.00	-3.3	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2570		1.92	2.00	-4.1	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2569		1.88	2.00	-6.2	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2287		2.82	3.00	-6.1	20.0
Octachlorobiphenyl	Ave	0.2187	0.2073		2.84	3.00	-5.2	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0399		4.57	5.00	-8.6	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0539		4.69	5.00	-6.2	20.0

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Instrument ID: CMSX Calibration Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calibration End Date: 03/01/2017 12:36

Calibration ID: 50854

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		26910	10.11	27530	16.20		
UPPER LIMIT		40365	10.61	41295	16.70		
LOWER LIMIT		13455	9.61	13765	15.70		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-470826/9		27104	10.11	28137	16.20		
CCVIS 680-472745/4		34636	10.11	39274	16.20		
MB 680-472187/5-A		30203	10.11	30117	16.20		
LCS 680-472187/6-A		29381	10.11	29542	16.20		
240-76517-F-2-A MS		27699	10.11	28858	16.20		
240-76517-F-2-B MSD		29479	10.11	34054	16.20		
240-76566-2	MRC-MW103A-030907	32257	10.11	32529	16.20		
240-76566-3	MRC-MW103B-030907	31201	10.11	31445	16.20		
240-76566-6	MRC-DUP01-030907	30318	10.11	30031	16.20		
CCV 680-472745/23		32036	10.11	34742	16.20		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Sample No.: CCVIS 680-472745/4 Date Analyzed: 03/16/2017 12:11

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm)

Lab File ID (Standard): xc1604.D Heated Purge: (Y/N) N

Calibration ID: 50854

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		34636	10.11	39274	16.20		
UPPER LIMIT		45027	10.61	51056	16.70		
LOWER LIMIT		24245	9.61	27492	15.70		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-472187/5-A		30203	10.11	30117	16.20		
LCS 680-472187/6-A		29381	10.11	29542	16.20		
240-76517-F-2-A MS		27699	10.11	28858	16.20		
240-76517-F-2-B MSD		29479	10.11	34054	16.20		
240-76566-2	MRC-MW103A-030907	32257	10.11	32529	16.20		
240-76566-3	MRC-MW103B-030907	31201	10.11	31445	16.20		
240-76566-6	MRC-DUP01-030907	30318	10.11	30031	16.20		
CCV 680-472745/23		32036	10.11	34742	16.20		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Instrument ID: CMSX Start Date: 03/01/2017 09:09

Analysis Batch Number: 470826 End Date: 03/01/2017 16:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 680-470826/2		03/01/2017 09:09	1	xc0102.D	HP-5MS 0.25(mm)
WDM 680-470826/3		03/01/2017 09:40	1		HP-5MS 0.25(mm)
IC 680-470826/5		03/01/2017 10:40	1	xc0105.D	HP-5MS 0.25(mm)
IC 680-470826/6		03/01/2017 11:09	1	xc0106.D	HP-5MS 0.25(mm)
IC 680-470826/7		03/01/2017 11:38	1	xc0107.D	HP-5MS 0.25(mm)
IC 680-470826/8		03/01/2017 12:07	1	xc0108.D	HP-5MS 0.25(mm)
ICISAV 680-470826/18		03/01/2017 12:36	1	xc0109.D	HP-5MS 0.25(mm)
ICV 680-470826/9		03/01/2017 13:05	1	xc0110.D	HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 13:34	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 14:03	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 14:32	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 15:01	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 15:30	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 15:59	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 16:28	1		HP-5MS 0.25(mm)
CCV 680-470826/17		03/01/2017 16:57	1		HP-5MS 0.25(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Instrument ID: CMSX Start Date: 03/16/2017 10:39

Analysis Batch Number: 472745 End Date: 03/16/2017 21:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 680-472745/1		03/16/2017 10:39	1	xc1601.D	HP-5MS 0.25(mm)
WDM 680-472745/3		03/16/2017 11:40	1	xc1603.D	HP-5MS 0.25(mm)
CCVIS 680-472745/4		03/16/2017 12:11	1	xc1604.D	HP-5MS 0.25(mm)
MB 680-472187/5-A		03/16/2017 12:40	1	xc1605.D	HP-5MS 0.25(mm)
LCS 680-472187/6-A		03/16/2017 13:09	1	xc1606.D	HP-5MS 0.25(mm)
240-76517-F-2-A MS		03/16/2017 13:38	1	xc1607.D	HP-5MS 0.25(mm)
240-76517-F-2-B MSD		03/16/2017 14:08	1	xc1608.D	HP-5MS 0.25(mm)
ZZZZZ		03/16/2017 15:06	1		HP-5MS 0.25(mm)
240-76566-2		03/16/2017 15:35	1	xc1611.D	HP-5MS 0.25(mm)
240-76566-3		03/16/2017 16:04	1	xc1612.D	HP-5MS 0.25(mm)
240-76566-6		03/16/2017 16:33	1	xc1613.D	HP-5MS 0.25(mm)
CCV 680-472745/23		03/16/2017 21:50	1	xc1624.D	HP-5MS 0.25(mm)

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Batch Number: 472187 Batch Start Date: 03/13/17 15:39 Batch Analyst: Simmons, Richard B

Batch Method: 680 Batch End Date: 03/14/17 09:43

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH	ResidualChloCheck
240-76566-D-2	MRC-MW103A-030907	680, 680	T	1512.0 g	503.0 g	1009 mL	1 mL	7 SU	N
240-76566-E-3	MRC-MW103B-030907	680, 680	T	1522.0 g	518.9 g	1003.1 mL	1 mL	7 SU	N
240-76566-D-6	MRC-DUP01-030907	680, 680	T	1514.6 g	497.4 g	1017.2 mL	1 mL	7 SU	N
MB 680-472187/5		680, 680				1000 mL	1 mL	7 SU	N
LCS 680-472187/6		680, 680				1000 mL	1 mL	7 SU	N
240-76517-F-2 MS		680, 680	T			501.4 mL	0.5 mL	7 SU	N
240-76517-F-2 MSD		680, 680	T	1040.1 g	504.3 g	535.8 mL	0.5 mL	7 SU	N

Lab Sample ID	Client Sample ID	Method Chain	Basis	680wkSPIKE 00108	680wkSURR-NEW 00016	680wkSURR-NEW 00017			
240-76566-D-2	MRC-MW103A-030907	680, 680	T		1 mL				
240-76566-E-3	MRC-MW103B-030907	680, 680	T		1 mL				
240-76566-D-6	MRC-DUP01-030907	680, 680	T		1 mL				
MB 680-472187/5		680, 680			1 mL				
LCS 680-472187/6		680, 680		1 mL		1 mL			
240-76517-F-2 MS		680, 680	T	0.5 mL		0.5 mL			
240-76517-F-2 MSD		680, 680	T	0.5 mL		0.5 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-76566-1

SDG No.:

Batch Number: 472187 Batch Start Date: 03/13/17 15:39 Batch Analyst: Simmons, Richard B

Batch Method: 680 Batch End Date: 03/14/17 09:43

Batch Notes	
Balance ID	23
Batch Comment	680 box M680-99
Concentration End Time	1251
Concentration Start Time	1211
Analyst ID - Concentration	RKL
Exchange Solvent ID	4969398
Exchange Solvent Name	Hexanes
Exchange Solvent Volume Used	1 mL
Extraction 1 End Time	0943
Extraction 1 Start Time	1539
pH Paper ID	4785212 4961266 4923424
Pipette ID	AA02G
Prep Solvent ID	4975501
Prep Solvent Name	MeCL2
Prep Solvent Volume Used	70 mL
Person's name who did the prep	RBS
Analyst ID - Reagent Drop Witness	CEW/RBS
Residual Chlorine Indicator ID	4852916
Analyst ID - Spike Analyst	RBS
Analyst ID - Spike Witness Analyst	CEW
Sufficient volume for MS/MSD?	Yes
Vial ID	84000

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

VOA Calibration Calculations:

Initial Calibration 3/8/2017
Instrument A3UX11

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
1	129125	1062737	10	1.2150	1.2150
2	241503	992602	10	1.2165	1.2165
5	637988	1061841	10	1.2017	1.2017
10	1343892	1095553	10	1.2267	1.2267
20	2969233	1208135	10	1.2288	1.2288
40	6918202	1429414	10	1.2100	1.2100
			Average	1.2165	1.2165
			Standard Deviation	0.0102	
			RSD	0.0084	
			%RSD	0.8392	0.8

Internal standard for benzene is fluorobenzene

Continuing Calibration 03/16/2017@ 9:29
Instrument A3UX11

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
10	917458	756568	10	1.2127	-0.3147558	1.231	-0.3

MRC Groundwater
SDG 240-76566-1

SAMPLE IDENTIFICATION	LCS 240-270891/4
COMPOUND	Cyclohexane
COMPOUND AREA	265550
INTERNAL STANDARD AMOUNT (ng)	10
DILUTION FACTOR	1
INTERNAL STANDARD AREA	682128
AVERAGE RRF	0.4041
VOLUME OF SAMPLE	5
VOLUME OF EXTRACT	5.00
CONCENTRATION =	9.63 ug/L

SVOA Calibration Calculations:

Initial Calibration 3/8/2017
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.01	2773	226947	0.5	0.61094	0.6109
0.02	6218	251612	0.5	0.61782	0.6178
0.05	14480	218926	0.5	0.66141	0.6614
0.1	27995	224595	0.5	0.62323	0.6232
0.2	48146	200782	0.5	0.59948	0.5995
0.4	110705	227238	0.5	0.60897	0.609
0.8	242998	233784	0.5	0.64963	0.6496
			Average	0.62450	0.6245
			Standard Deviation	0.0227	
			RSD	0.0363	
			%RSD	3.63475	3.6

Continuing Calibration 03/15/2017 @ 16:54
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
0.1	33739	294855	0.5	0.5721	-8.386121	0.5721	-8.4

MRC Groundwater
SDG 240-76566-1

SAMPLE IDENTIFICATION	LCS 200-114882/2-A
COMPOUND	1,4-Dioxane
COMPOUND AREA	3477
INTERNAL STANDARD AMOUNT (ng)	0.5
DILUTION FACTOR	1
INTERNAL STANDARD AREA	322868
AVERAGE RRF	0.6245
VOLUME OF SAMPLE	100
VOLUME OF EXTRACT	2000.00
CONCENTRATION =	0.172 ug/L

PCB Calibration Calculations:

Initial Calibration 3/1/2017
Instrument CMSX

Monochlorobiphenyl

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.1	3151	28080	0.75	0.8416	0.8416
0.5	13342	26238	0.75	0.7627	0.7627
1	26104	26916	0.75	0.7274	0.7274
2	56643	27928	0.75	0.7606	0.7606
5	163189	28486	0.75	0.8593	0.8593
			Average	0.7903	0.7903
			Standard Deviation	0.0570	
			RSD	0.0721	
			%RSD	7.2129	7.2

Continuing Calibration 03/16/2017@ 21:50
Instrument CMSX

Monochlorobiphenyl

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
1	34888	34742	0.75	0.7532	-4.6076658	0.7532	-4.7

MRC Groundwater
SDG 240-76566-1

SAMPLE IDENTIFICATION	LCS 680-472187/6-A
COMPOUND	Monochlorobiphenyl
COMPOUND AREA	48781
INTERNAL STANDARD AMOUNT (ng)	0.75
DILUTION FACTOR	1
INTERNAL STANDARD AREA	29542
AVERAGE RRF	0.7903
VOLUME OF SAMPLE	1
VOLUME OF EXTRACT	1.00
CONCENTRATION =	1.56704 ug/L

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **APRIL13, 2017**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs, 1,4-DIOXANE**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC) GROUNDWATER
SDG 240-76607-1

SAMPLES: 5/Aqueous
VOCs

MRC-DUP02-031017	MRC-MW32A-031017	MRC-MW33A-031017
MRC-MW34A-031017	MRC-MW88B-031017	

3/Aqueous
1,4-Dioxane

MRC-DUP02-031017	MRC-MW33A-031017	MRC-MW34A-031017

1/Trip Blank

TB-031017

Overview

The sample set for LMC-MRC Groundwater, SDG 240-76607-1 consisted of five (5) aqueous environmental samples and one (1) trip blank. All samples were analyzed for volatile organic carbons (VOCs). Samples MRC-DUP02-031017, MRC-MW33A-031017 and MRC-MW34A-031017 were analyzed for 1,4-Dioxane. One (1) field duplicate sample pair (MRC-MW34A-031017 / MRC-DUP02-031017) was included in this SDG.

The samples were collected by Tetra Tech, Inc. on March 10, 2017 and analyzed by TestAmerica – Canton and TestAmerica-Burlington. All analyses were conducted in accordance with SW-846 Method 8260C and EPA method 522 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, laboratory control sample / laboratory control sample duplicate results, matrix spike / matrix spike duplicate recoveries, internal standard areas, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The VOC continuing calibration performed on instrument A3UX17 on 03/14/17 @ 10:59 had percent differences (%Ds) for dichlorodifluoromethane, bromomethane, chloroethane and 2-butanone which exceeded the quality control limits. All samples were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

- Detected results reported below the RL but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

The laboratory control standard (LCS) percent recovery for 2-butanone was above the quality control limit. All samples were affected. No validation actions were warranted as all sample results were nondetects.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: One CCV %D was noncompliant for the VOC fraction.

Other Factors Affecting Data Quality: Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-DUP02-031017			MRC-MW32A-031017			MRC-MW33A-031017			MRC-MW34A-031017		
SDG: 240-76607-1	LAB_ID	240-76607-6			240-76607-2			240-76607-4			240-76607-3		
FRACTION: OV	SAMP_DATE	3/10/2017			3/10/2017			3/10/2017			3/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW34A-031017											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.27	J	P	0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	UJ	C	1	UJ	C	1	UJ	C	1	UJ	C
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	UJ	C	0.42	UJ	C	0.42	UJ	C	0.42	UJ	C
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	UJ	C	0.41	UJ	C	0.41	UJ	C	0.41	UJ	C
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		2.8			0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW88B-031017			TB-031017		
SDG: 240-76607-1	LAB_ID	240-76607-5			240-76607-1		
FRACTION: OV	SAMP_DATE	3/10/2017			3/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U	
2-BUTANONE		1	UJ	C	1	UJ	C
2-HEXANONE		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U	
BROMOMETHANE		0.42	UJ	C	0.42	UJ	C
CARBON DISULFIDE		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U	
CHLOROETHANE		0.41	UJ	C	0.41	UJ	C
CHLOROFORM		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C
ETHYLBENZENE		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-DUP02-031017			MRC-MW32A-031017			MRC-MW33A-031017			MRC-MW34A-031017		
SDG: 240-76607-1	LAB_ID	240-76607-6			240-76607-2			240-76607-4			240-76607-3		
FRACTION: OV	SAMP_DATE	3/10/2017			3/10/2017			3/10/2017			3/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW34A-031017											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		4.5			0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		17			0.33	U		2.5			17		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW88B-031017			TB-031017		
SDG: 240-76607-1	LAB_ID	240-76607-5			240-76607-1		
FRACTION: OV	SAMP_DATE	3/10/2017			3/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-DUP02-031017			MRC-MW33A-031017			MRC-MW34A-031017		
SDG: 240-76607-1	LAB_ID	240-76607-6			240-76607-4			240-76607-3		
FRACTION: OS	SAMP_DATE	3/10/2017			3/10/2017			3/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF	MRC-MW34A-031017								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.057	U		0.17	J	P	0.057	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: TB-031017 | Lab Sample ID: 240-76607-1

Matrix: Water | Lab File ID: UXR7256.D

Analysis Method: 8260C | Date Collected: 03/10/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 19:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U *	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: TB-031017 | Lab Sample ID: 240-76607-1

Matrix: Water | Lab File ID: UXR7256.D

Analysis Method: 8260C | Date Collected: 03/10/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 19:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	87		80-120
460-00-4	4-Bromofluorobenzene (Surr)	83		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-MW32A-031017 | Lab Sample ID: 240-76607-2

Matrix: Water | Lab File ID: UXR7257.D

Analysis Method: 8260C | Date Collected: 03/10/2017 09:29

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 19:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U *	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-MW32A-031017 | Lab Sample ID: 240-76607-2

Matrix: Water | Lab File ID: UXR7257.D

Analysis Method: 8260C | Date Collected: 03/10/2017 09:29

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 19:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	85		80-120
460-00-4	4-Bromofluorobenzene (Surr)	84		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-MW34A-031017 | Lab Sample ID: 240-76607-3

Matrix: Water | Lab File ID: UXR7258.D

Analysis Method: 8260C | Date Collected: 03/10/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 20:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U *	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-MW34A-031017 | Lab Sample ID: 240-76607-3

Matrix: Water | Lab File ID: UXR7258.D

Analysis Method: 8260C | Date Collected: 03/10/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 20:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	17		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	84		80-120
460-00-4	4-Bromofluorobenzene (Surr)	86		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-MW33A-031017 | Lab Sample ID: 240-76607-4

Matrix: Water | Lab File ID: UXR7259.D

Analysis Method: 8260C | Date Collected: 03/10/2017 12:13

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 20:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.27	J	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U *	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	2.8		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-MW33A-031017 | Lab Sample ID: 240-76607-4

Matrix: Water | Lab File ID: UXR7259.D

Analysis Method: 8260C | Date Collected: 03/10/2017 12:13

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 20:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	4.5		1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	2.5		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	83		80-120
460-00-4	4-Bromofluorobenzene (Surr)	83		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-MW88B-031017 | Lab Sample ID: 240-76607-5

Matrix: Water | Lab File ID: UXR7260.D

Analysis Method: 8260C | Date Collected: 03/10/2017 15:10

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 20:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U *	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-MW88B-031017 | Lab Sample ID: 240-76607-5

Matrix: Water | Lab File ID: UXR7260.D

Analysis Method: 8260C | Date Collected: 03/10/2017 15:10

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 20:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	89		73-124
1868-53-7	Dibromofluoromethane (Surr)	84		80-120
460-00-4	4-Bromofluorobenzene (Surr)	84		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-DUP02-031017 | Lab Sample ID: 240-76607-6

Matrix: Water | Lab File ID: UXR7261.D

Analysis Method: 8260C | Date Collected: 03/10/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 21:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U *	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-DUP02-031017 | Lab Sample ID: 240-76607-6

Matrix: Water | Lab File ID: UXR7261.D

Analysis Method: 8260C | Date Collected: 03/10/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 21:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	17		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-124
1868-53-7	Dibromofluoromethane (Surr)	86		80-120
460-00-4	4-Bromofluorobenzene (Surr)	86		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-132

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-MW34A-031017 | Lab Sample ID: 240-76607-3

Matrix: Water | Lab File ID: Z24343_11.D

Analysis Method: 522 | Date Collected: 03/10/2017 10:35

Extract. Method: 3535A | Date Extracted: 03/15/2017 20:28

Sample wt/vol: 100(mL) | Date Analyzed: 03/16/2017 15:14

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 114955 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	91		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-MW33A-031017 | Lab Sample ID: 240-76607-4

Matrix: Water | Lab File ID: Z24343_12.D

Analysis Method: 522 | Date Collected: 03/10/2017 12:13

Extract. Method: 3535A | Date Extracted: 03/15/2017 20:28

Sample wt/vol: 100(mL) | Date Analyzed: 03/16/2017 15:31

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 114955 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.17	J	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	89		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76607-1

SDG No.:

Client Sample ID: MRC-DUP02-031017 | Lab Sample ID: 240-76607-6

Matrix: Water | Lab File ID: Z24343_13.D

Analysis Method: 522 | Date Collected: 03/10/2017 00:00

Extract. Method: 3535A | Date Extracted: 03/15/2017 20:28

Sample wt/vol: 100(mL) | Date Analyzed: 03/16/2017 15:48

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 114955 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	89		46-130

Appendix C

Support Documentation

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

1.6/G1.3

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Payon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.1
Client Contact: Mr. Stuart Cameron	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 2
Company: Tetra Tech, Inc.				Job #:

Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Germantown	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: MD, 20874			
Phone: 301 529-3022	PO #: 1093454		Other:
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776		
Project Name: MRC 2017 GW	Project #: 24015639		
Site: Middle River Center	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List: 1,4 Dioxane (Method 522)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
TB-031017	3-10-17	~	G	Water			2	-	
MRC-MW32A-031017		0929		Water			3	-	
MRC-MW34A-031017		1035		Water			3	2	
MRC-MW33A-031017		1213		Water			3	2	
MRC-MW88B-031017		1510		Water			3	-	
MRC-Dup02-031017		0000		Water			3	2	
				Water					
				Water					
				Water					
				Water					
				Water					

240-76607 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological	[ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Payon	3/10/17	TT INC	Dalice Cole	3/10/17 1515	TT
Dalice Cole	3/10/17 1614		POP	3-11-17 1010	TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 76607**
Canton Facility

Client TETRA TECH Site Name —

Cooler unpacked by: POP

Cooler Received on 3-11-17 Opened on 3-11-17

FedEx: 1st Grd ~~Exp~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # ~~Foam Box~~ Client Cooler Box Other

Packing material used: ~~Bubble Wrap~~ Foam ~~Plastic Bag~~ None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 1.6 °C Corrected Cooler Temp. 1.3 °C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 ~~Yes~~ No
   -Were custody seals on the outside of the cooler(s) signed & dated? ~~Yes~~ No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes ~~No~~
3. Shippers' packing slip attached to the cooler(s)? ~~Yes~~ No
4. Did custody papers accompany the sample(s)? ~~Yes~~ No
5. Were the custody papers relinquished & signed in the appropriate place? ~~Yes~~ No
6. Was/were the person(s) who collected the samples clearly identified on the COC? ~~Yes~~ No
7. Did all bottles arrive in good condition (Unbroken)? ~~Yes~~ No
8. Could all bottle labels be reconciled with the COC? ~~Yes~~ No
9. Were correct bottle(s) used for the test(s) indicated? ~~Yes~~ No
10. Sufficient quantity received to perform indicated analyses? ~~Yes~~ No
11. Are these work share samples? Yes ~~No~~
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No ~~NA~~ pH Strip Lot# **HC682547**
12. Were VOAs on the COC? ~~Yes~~ No
13. Were air bubbles >6 mm in any VOA vials? Yes ~~No~~ NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 163030103 ~~Yes~~ No
15. Was a LL Hg or Me Hg trip blank present? Yes ~~No~~

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-76607-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 522 1,4-Dioxane analysis was performed at the TestAmerica Burlington Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 3/11/2017 10:51 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3º C.

1,4-DIOXANE
Samples MRC-MW34A-031017 (240-76607-3), MRC-MW33A-031017 (240-76607-4) and MRC-DUP02-031017 (240-76607-6) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 03/15/2017 and analyzed on 03/16/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples TB-031017 (240-76607-1), MRC-MW32A-031017 (240-76607-2), MRC-MW34A-031017 (240-76607-3), MRC-MW33A-031017 (240-76607-4), MRC-MW88B-031017 (240-76607-5) and MRC-DUP02-031017 (240-76607-6) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/14/2017.

The continuing calibration verification (CCV) for analytical batch 270478 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required. TB-031017 (240-76607-1), MRC-MW32A-031017 (240-76607-2), MRC-MW34A-031017 (240-76607-3), MRC-MW33A-031017 (240-76607-4), MRC-MW88B-031017 (240-76607-5) and MRC-DUP02-031017 (240-76607-6)

The laboratory control sample (LCS) for analytical batch 240-270478 recovered outside control limits for the following analyte.
2-Butanone. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. TB-031017 (240-76607-1), MRC-MW32A-031017 (240-76607-2), MRC-MW34A-031017 (240-76607-3), MRC-MW33A-031017 (240-76607-4), MRC-MW88B-031017 (240-76607-5), MRC-DUP02-031017 (240-76607-6) and (LCS 240-270478/4)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76607-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76607-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-76607-1	TB-031017	Water	03/10/17 00:00	03/11/17 10:51
240-76607-2	MRC-MW32A-031017	Water	03/10/17 09:29	03/11/17 10:51
240-76607-3	MRC-MW34A-031017	Water	03/10/17 10:35	03/11/17 10:51
240-76607-4	MRC-MW33A-031017	Water	03/10/17 12:13	03/11/17 10:51
240-76607-5	MRC-MW88B-031017	Water	03/10/17 15:10	03/11/17 10:51
240-76607-6	MRC-DUP02-031017	Water	03/10/17 00:00	03/11/17 10:51

ANALYTE	ORIGINAL MRC-MW34A	DUPLICATE DUP02	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2XRL
TRICHLOROETHENE	17	17	1	0.000	FALSE	TRUE	TRUE	FALSE

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-031017	240-76607-1	87	89	90	83
MRC-MW32A-031017	240-76607-2	85	90	90	84
MRC-MW34A-031017	240-76607-3	84	90	90	86
MRC-MW33A-031017	240-76607-4	83	89	90	83
MRC-MW88B-031017	240-76607-5	84	90	89	84
MRC-DUP02-031017	240-76607-6	86	91	91	86
	MB 240-270478/6	86	90	89	84
	LCS 240-270478/4	88	87	89	87
	240-76517-C-2 MS	86	85	90	86
	240-76517-A-2 MSD	88	87	89	86

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR7239.D

Lab ID: LCS 240-270478/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.82	98	79-133	
1,1,2,2-Tetrachloroethane	10.0	9.95	99	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.3	103	65-151	
1,1,2-Trichloroethane	10.0	10.4	104	80-120	
1,1-Dichloroethane	10.0	9.81	98	77-121	
1,1-Dichloroethene	10.0	9.75	97	70-141	
1,2,4-Trichlorobenzene	10.0	8.53	85	53-137	
1,2-Dibromo-3-Chloropropane	10.0	9.93	99	46-140	
Ethylene Dibromide	10.0	10.1	101	80-126	
1,2-Dichlorobenzene	10.0	9.86	99	80-120	
1,2-Dichloroethane	10.0	10.1	101	76-130	
1,2-Dichloropropane	10.0	9.85	99	79-121	
1,3-Dichlorobenzene	10.0	9.55	95	80-120	
1,4-Dichlorobenzene	10.0	9.60	96	80-120	
2-Butanone (MEK)	20.0	25.6	128	54-122	*
2-Hexanone	20.0	19.9	100	56-124	
4-Methyl-2-pentanone (MIBK)	20.0	19.7	99	60-131	
Acetone	20.0	20.5	102	46-120	
Benzene	10.0	9.99	100	80-120	
Dichlorobromomethane	10.0	10.0	100	76-125	
Bromoform	10.0	9.61	96	52-157	
Bromomethane	10.0	4.54	45	24-160	
Carbon disulfide	10.0	8.65	86	58-160	
Carbon tetrachloride	10.0	10.2	102	69-149	
Chlorobenzene	10.0	10.1	101	80-120	
Chloroethane	10.0	4.81	48	24-147	
Chloroform	10.0	10.0	100	80-120	
Chloromethane	10.0	8.09	81	50-135	
cis-1,2-Dichloroethene	10.0	9.70	97	80-120	
cis-1,3-Dichloropropene	10.0	9.79	98	75-120	
Cyclohexane	10.0	10.7	107	66-135	
Chlorodibromomethane	10.0	9.72	97	68-131	
Dichlorodifluoromethane	10.0	9.62	96	32-140	
Ethylbenzene	10.0	10.0	100	80-120	
Isopropylbenzene	10.0	10.2	102	80-120	
Methyl acetate	50.0	50.4	101	65-124	
Methyl tert-butyl ether	10.0	9.91	99	75-126	
Methylcyclohexane	10.0	11.0	110	71-122	
Methylene Chloride	10.0	9.84	98	68-136	
Styrene	10.0	10.1	101	80-120	
Tetrachloroethene	10.0	10.3	103	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR7239.D

Lab ID: LCS 240-270478/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	10.0	10.1	101	80-121	
trans-1,2-Dichloroethene	10.0	10.0	100	80-123	
trans-1,3-Dichloropropene	10.0	9.73	97	65-120	
Trichloroethene	10.0	9.83	98	80-122	
Trichlorofluoromethane	10.0	7.71	77	56-161	
Vinyl chloride	10.0	9.74	97	60-129	
Xylenes, Total	20.0	20.1	101	80-120	
m-Xylene & p-Xylene	10.0	10.0	100	80-120	
o-Xylene	10.0	10.1	101	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

MS/MSD original sample not included in this SDG.

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR7262.D

Lab ID: 240-76517-C-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,2,4-Trichlorobenzene	10.0	0.27 U	8.60	86	35-140	
1,2-Dichlorobenzene	10.0	0.26 U	9.65	97	62-123	
1,3-Dichlorobenzene	10.0	0.32 U	9.43	94	59-122	
1,4-Dichlorobenzene	10.0	0.23 U	9.44	94	60-122	
Chlorobenzene	10.0	0.32 U	9.72	97	58-128	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXR7263.D

Lab ID: 240-76517-A-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,2,4-Trichlorobenzene	10.0	8.23	82	4	35	35-140	
1,2-Dichlorobenzene	10.0	9.21	92	5	35	62-123	
1,3-Dichlorobenzene	10.0	8.86	89	6	35	59-122	
1,4-Dichlorobenzene	10.0	8.96	90	5	35	60-122	
Chlorobenzene	10.0	9.51	95	2	35	58-128	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Lab File ID: UXR7241.D Lab Sample ID: MB 240-270478/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX17 Date Analyzed: 03/14/2017 12:29

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-270478/4	UXR7239.D	03/14/2017 11:44
TB-031017	240-76607-1	UXR7256.D	03/14/2017 19:18
MRC-MW32A-031017	240-76607-2	UXR7257.D	03/14/2017 19:40
MRC-MW34A-031017	240-76607-3	UXR7258.D	03/14/2017 20:02
MRC-MW33A-031017	240-76607-4	UXR7259.D	03/14/2017 20:24
MRC-MW88B-031017	240-76607-5	UXR7260.D	03/14/2017 20:46
MRC-DUP02-031017	240-76607-6	UXR7261.D	03/14/2017 21:08
	240-76517-C-2 MS	UXR7262.D	03/14/2017 21:31
	240-76517-A-2 MSD	UXR7263.D	03/14/2017 21:53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-270478/6

Matrix: Water | Lab File ID: UXR7241.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 12:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76607-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-270478/6

Matrix: Water | Lab File ID: UXR7241.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/14/2017 12:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270478 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	89		73-124
1868-53-7	Dibromofluoromethane (Surr)	86		80-120
460-00-4	4-Bromofluorobenzene (Surr)	84		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Lab File ID: BFB1439.D BFB Injection Date: 03/10/2017

Instrument ID: A3UX17 BFB Injection Time: 15:12

Analysis Batch No.: 270112

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	51.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	85.6	
175	5.0 - 9.0 % of mass 174	5.9	(6.9) 1
176	95.0 - 101.0 % of mass 174	84.6	(98.9) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-270112/2	UXR7196.D	03/10/2017	15:44
	STD8260 240-270112/3	UXR7197.D	03/10/2017	16:07
	STD8260 240-270112/4	UXR7198.D	03/10/2017	16:29
	STD8260 240-270112/5	UXR7199.D	03/10/2017	16:52
	STD8260 240-270112/6	UXR7200.D	03/10/2017	17:14
	STD8260 240-270112/7	UXR7201.D	03/10/2017	17:36
	ICV 240-270112/8	UXR7202.D	03/10/2017	17:59
	ICV 240-270112/15	UXR7209.D	03/10/2017	20:34

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76607-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-270112/7	UXR7201.D
Level 2	STD8260 240-270112/6	UXR7200.D
Level 3	STD8260 240-270112/5	UXR7199.D
Level 4	STD8260 240-270112/4	UXR7198.D
Level 5	STD8260 240-270112/3	UXR7197.D
Level 6	STD8260 240-270112/2	UXR7196.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1216 0.2550	0.1871	0.2212	0.2288	0.2530	Lin1	-0.088	0.2531			0.1000				0.9980		0.9900
Chloromethane	0.4797 0.3334	0.4004	0.3751	0.3600	0.3567	Ave		0.3842			0.1000	13.5		20.0			
Vinyl chloride	0.3955 0.3345	0.3652	0.3702	0.3578	0.3570	Ave		0.3634			0.1000	5.5		20.0			
Butadiene	0.3649 0.2978	0.3210	0.3300	0.3287	0.3216	Ave		0.3274				6.6		20.0			
Bromomethane	0.1839 0.0986	0.1523	0.1397	0.1380	0.1171	Qua	0.0409	0.1372	-0.000996		0.0500				0.9990		0.9900
Chloroethane	0.2061 0.1534	0.1966	0.1858	0.1789	0.1649	Ave		0.1810			0.0500	10.8		20.0			
Dichlorofluoromethane	0.4353 0.3304	0.4220	0.3973	0.3761	0.3670	Ave		0.3880				9.9		20.0			
Trichlorofluoromethane	0.2384 0.3021	0.2819	0.3062	0.3119	0.2953	Ave		0.2893			0.1000	9.3		20.0			
Ethyl ether	0.2315 0.2194	0.2188	0.2178	0.2082	0.2108	Ave		0.2178				3.8		20.0			
Acrolein	0.0409 0.0336	0.0320	0.0330	0.0322	0.0333	Ave		0.0342				9.8		20.0			
1,1-Dichloroethene	0.2737 0.2443	0.2460	0.2419	0.2358	0.2430	Ave		0.2474			0.1000	5.4		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1423 0.1796	0.1693	0.1736	0.1781	0.1849	Ave		0.1713			0.0500	8.9		20.0			
Acetone	0.3022 0.0521	0.1030	0.0669	0.0596	0.0654	Qua	0.1279	0.0655	-0.000183		0.0100				0.9930		0.9900
Iodomethane	0.4059 0.3990	0.3789	0.4023	0.3960	0.3894	Ave		0.3952				2.5		20.0			
Carbon disulfide	0.7853 0.7817	0.7189	0.7433	0.7335	0.7460	Ave		0.7514			0.1000	3.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76607-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1541 0.1631	0.1527	0.1547	0.1595	0.1590	Ave		0.1572				2.6		20.0			
Methyl acetate	0.1975 0.1681	0.1679	0.1679	0.1597	0.1640	Ave		0.1709			0.1000	7.9		20.0			
Methylene Chloride	0.8026 0.2639	0.3938	0.3131	0.2786	0.2647	Lin1	0.2741	0.2548			0.1000				1.0000		0.9900
2-Methyl-2-propanol	0.0290 +++++	0.0208	0.0193	0.0194	0.0211	Ave		0.0219				18.4		20.0			
Acrylonitrile	0.0909 0.0870	0.0844	0.0876	0.0836	0.0860	Ave		0.0866				3.0		20.0			
Methyl tert-butyl ether	0.8226 0.8093	0.7455	0.7714	0.7492	0.7629	Ave		0.7768			0.1000	4.1		20.0			
trans-1,2-Dichloroethene	0.3063 0.2761	0.2638	0.2662	0.2641	0.2691	Ave		0.2743			0.1000	6.0		20.0			
Hexane	0.0703 0.0776	0.0661	0.0686	0.0697	0.0744	Ave		0.0711				5.9		20.0			
1,1-Dichloroethane	0.5118 0.4624	0.4505	0.4551	0.4469	0.4437	Ave		0.4617			0.2000	5.5		20.0			
Vinyl acetate	0.5406 0.5058	0.4151	0.4702	0.4523	0.4661	Ave		0.4750				9.2		20.0			
2,2-Dichloropropane	0.2970 0.3090	0.2843	0.2948	0.2973	0.2920	Ave		0.2957				2.7		20.0			
cis-1,2-Dichloroethene	0.3431 0.3083	0.2903	0.3029	0.3061	0.3019	Ave		0.3088			0.1000	5.8		20.0			
2-Butanone (MEK)	0.1473 0.0808	0.0885	0.0854	0.0808	0.0878	Lin1	0.0574	0.0813			0.0100				0.9980		0.9900
Chlorobromomethane	0.1417 0.1430	0.1350	0.1410	0.1380	0.1431	Ave		0.1403				2.3		20.0			
Tetrahydrofuran	0.0940 0.0672	0.0672	0.0669	0.0653	0.0689	Ave		0.0716				15.4		20.0			
Chloroform	0.4823 0.4639	0.4423	0.4652	0.4467	0.4575	Ave		0.4597			0.2000	3.1		20.0			
1,1,1-Trichloroethane	0.3816 0.3785	0.3615	0.3688	0.3710	0.3670	Ave		0.3714			0.1000	2.0		20.0			
Cyclohexane	0.4133 0.4363	0.3986	0.4073	0.4103	0.4318	Ave		0.4163			0.1000	3.5		20.0			
1,1-Dichloropropene	0.3925 0.3704	0.3522	0.3651	0.3522	0.3612	Ave		0.3656				4.1		20.0			
Carbon tetrachloride	0.2786 0.3416	0.2778	0.3186	0.3176	0.3251	Ave		0.3099			0.1000	8.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76607-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0171 +++++	0.0114	0.0109	0.0089	0.0098	Lin1	0.0987	0.0094							0.9950		0.9900
Benzene	1.2524 1.1018	1.0972	1.0872	1.0691	1.0679	Ave		1.1126			0.5000	6.3		20.0			
1,2-Dichloroethane	0.3862 0.3576	0.3534	0.3594	0.3433	0.3508	Ave		0.3584			0.1000	4.1		20.0			
n-Heptane	0.0704 0.0800	0.0688	0.0689	0.0714	0.0745	Ave		0.0723				5.9		20.0			
Trichloroethene	0.3091 0.3023	0.2878	0.2863	0.2953	0.2953	Ave		0.2960			0.1500	2.9		20.0			
Methylcyclohexane	0.4213 0.4763	0.4025	0.4316	0.4393	0.4641	Ave		0.4392			0.1000	6.2		20.0			
1,2-Dichloropropane	0.2682 0.2576	0.2482	0.2526	0.2497	0.2523	Ave		0.2548			0.1000	2.9		20.0			
1,4-Dioxane	0.0047 +++++	0.0034	0.0027	0.0030	0.0029	Lin1	0.0174	0.0028							0.9970		0.9900
Dibromomethane	0.1836 0.1592	0.1508	0.1546	0.1531	0.1569	Ave		0.1597				7.6		20.0			
Dichlorobromomethane	0.3240 0.3426	0.3060	0.3097	0.3155	0.3259	Ave		0.3206			0.1500	4.1		20.0			
2-Chloroethyl vinyl ether	0.1316 0.1539	0.1263	0.1364	0.1347	0.1395	Ave		0.1371				6.9		20.0			
cis-1,3-Dichloropropene	0.3871 0.4445	0.3694	0.3925	0.4028	0.4148	Ave		0.4019			0.1500	6.4		20.0			
4-Methyl-2-pentanone (MIBK)	0.2572 0.2133	0.2036	0.2124	0.2058	0.2112	Ave		0.2173			0.0500	9.2		20.0			
Toluene	1.7863 1.6150	1.6262	1.6207	1.5812	1.5701	Ave		1.6332			0.4000	4.8		20.0			
trans-1,3-Dichloropropene	0.4466 0.5283	0.4377	0.4741	0.4772	0.4942	Ave		0.4764			0.1000	6.9		20.0			
Ethyl methacrylate	0.4149 0.4411	0.3947	0.4078	0.4172	0.4264	Ave		0.4170				3.8		20.0			
1,1,2-Trichloroethane	0.3349 0.2993	0.2818	0.2996	0.2953	0.2958	Ave		0.3011			0.1000	5.9		20.0			
Tetrachloroethene	0.3380 0.3141	0.2985	0.3162	0.3128	0.3127	Ave		0.3154			0.1500	4.0		20.0			
1,3-Dichloropropane	0.5944 0.5338	0.5444	0.5524	0.5287	0.5284	Ave		0.5470				4.6		20.0			
2-Hexanone	0.2485 0.1684	0.1969	0.1811	0.1757	0.1806	Ave		0.1919			0.0500	15.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76607-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.3122 0.3552	0.2888	0.3186	0.3190	0.3378	Ave		0.3219				7.0		20.0			
Ethylene Dibromide	0.3177 0.3051	0.2890	0.3020	0.2946	0.3043	Ave		0.3021				3.3		20.0			
Chlorobenzene	1.1032 1.0588	1.0616	1.0476	1.0273	1.0304	Ave		1.0548			0.3000	2.6		20.0			
1,1,1,2-Tetrachloroethane	0.3755 0.3733	0.3372	0.3571	0.3526	0.3685	Ave		0.3607				4.0		20.0			
Ethylbenzene	0.5946 0.5771	0.5735	0.5686	0.5730	0.5709	Ave		0.5763				1.6		20.0			
m-Xylene & p-Xylene	0.7134 0.7156	0.7052	0.7139	0.6941	0.7042	Ave		0.7077				1.2		20.0			
o-Xylene	0.7501 0.7100	0.6831	0.7188	0.7008	0.7063	Ave		0.7115				3.1		20.0			
Styrene	1.0901 1.1975	1.0881	1.1257	1.1457	1.1578	Ave		1.1342			0.3000	3.7		20.0			
Bromoform	0.1946 0.2401	0.1789	0.2006	0.2071	0.2263	Ave		0.2079			0.1000	10.6		20.0			
Isopropylbenzene	1.8627 1.8586	1.7925	1.8314	1.8133	1.8468	Ave		1.8342			0.1000	1.5		20.0			
1,1,2,2-Tetrachloroethane	0.8111 0.7205	0.6986	0.7075	0.6822	0.7027	Ave		0.7204			0.3000	6.4		20.0			
Bromobenzene	0.8976 0.8739	0.8565	0.8601	0.8275	0.8262	Ave		0.8570				3.2		20.0			
1,2,3-Trichloropropane	0.3029 0.2393	0.2388	0.2487	0.2378	0.2355	Ave		0.2505				10.4		20.0			
trans-1,4-Dichloro-2-butene	0.2001 0.2092	0.1669	0.1917	0.1806	0.1922	Ave		0.1901				7.8		20.0			
N-Propylbenzene	1.0903 0.9836	0.9128	0.9557	0.9338	0.9287	Ave		0.9675				6.7		20.0			
2-Chlorotoluene	0.7980 0.8309	0.8310	0.8258	0.8115	0.7946	Ave		0.8153				2.0		20.0			
1,3,5-Trimethylbenzene	2.8378 2.8221	2.7265	2.7835	2.7375	2.7830	Ave		2.7817				1.6		20.0			
4-Chlorotoluene	0.9383 0.8672	0.8682	0.8862	0.8370	0.8172	Ave		0.8690				4.8		20.0			
tert-Butylbenzene	2.5770 2.4995	2.4736	2.4559	2.4510	2.4508	Ave		2.4846				2.0		20.0			
1,2,4-Trimethylbenzene	3.1154 2.9129	2.8548	2.8961	2.8712	2.8557	Ave		2.9177				3.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76607-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.5800 3.5133	3.4932	3.4446	3.5099	3.4836	Ave		3.5041				1.3		20.0			
1,3-Dichlorobenzene	1.8026 1.6371	1.6856	1.6570	1.6479	1.6448	Ave		1.6792			0.6000	3.7		20.0			
4-Isopropyltoluene	2.8640 3.0095	2.9210	2.9737	3.0147	3.0196	Ave		2.9671				2.1		20.0			
1,4-Dichlorobenzene	1.8976 1.6831	1.7550	1.7294	1.6494	1.6656	Ave		1.7300			0.5000	5.3		20.0			
n-Butylbenzene	2.5448 2.5158	2.5481	2.5468	2.5915	2.5565	Ave		2.5506				1.0		20.0			
1,2-Dichlorobenzene	1.6334 1.5087	1.6345	1.5646	1.5785	1.5610	Ave		1.5801			0.4000	3.0		20.0			
1,2-Dibromo-3-Chloropropane	0.0989 0.1402	0.1248	0.1328	0.1395	0.1477	Ave		0.1307			0.0500	13.3		20.0			
1,2,4-Trichlorobenzene	1.0729 0.9128	1.0266	0.9878	1.1130	0.9811	Ave		1.0157			0.2000	7.0		20.0			
Hexachlorobutadiene	0.4628 0.3652	0.3953	0.3856	0.4346	0.3877	Ave		0.4052				8.9		20.0			
Naphthalene	2.7881 2.1557	2.4553	2.2882	2.6966	2.3482	Ave		2.4554				9.9		20.0			
1,2,3-Trichlorobenzene	0.9821 0.8169	0.9501	0.8656	1.0347	0.8811	Ave		0.9217				8.8		20.0			
Dibromofluoromethane (Surr)	0.2663 0.2446	0.2468	0.2393	0.2367	0.2434	Ave		0.2462				4.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3871 0.2918	0.2951	0.2930	0.2846	0.2887	Ave		0.3067				12.9		20.0			
Toluene-d8 (Surr)	1.6288 1.3625	1.4249	1.3684	1.3512	1.3726	Ave		1.4181				7.5		20.0			
4-Bromofluorobenzene (Surr)	0.6004 0.4994	0.5240	0.4946	0.4970	0.5059	Ave		0.5202				7.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76607-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-270112/7	UXR7201.D
Level 2	STD8260 240-270112/6	UXR7200.D
Level 3	STD8260 240-270112/5	UXR7199.D
Level 4	STD8260 240-270112/4	UXR7198.D
Level 5	STD8260 240-270112/3	UXR7197.D
Level 6	STD8260 240-270112/2	UXR7196.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Lin1	6929 1208072	43424	130930	279199	623101	0.500 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	27344 1579627	92922	222063	439385	878229	0.500 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	22544 1584726	84752	219151	436699	879173	0.500 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	20799 1411118	74501	195367	401178	792030	0.500 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Qua	10483 467110	35340	82724	168379	288233	0.500 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	11750 726668	45642	110002	218352	406165	0.500 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	24813 1565500	97955	235183	458975	903786	0.500 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	13590 1431478	65430	181287	380613	727077	0.500 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	13198 1039590	50786	128902	254129	518975	0.500 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	11649 796738	37095	97686	196311	409825	2.50 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	15604 1157334	57094	143177	287839	598258	0.500 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	8112 850923	39301	102745	217424	455327	0.500 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Qua	34455 493704	47827	79208	145580	321837	1.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	23138 1890110	87944	238145	483300	958849	0.500 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	44764 3703243	166860	439995	895230	1836978	0.500 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	8783 772922	35437	91575	194653	391598	0.500 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76607-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	56303 3982493	194795	496971	974823	2018885	2.50 200	10.0	25.0	50.0	100
Methylene Chloride	FB	Lin1	45752 1250099	91402	185351	339982	651911	0.500 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	16533 +++++	48368	114371	236896	519968	5.00 +++++	20.0	50.0	100	200
Acrylonitrile	FB	Ave	51812 4123515	195789	518291	1020041	2117267	5.00 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	46892 3834289	173027	456663	914350	1878638	0.500 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	17462 1308303	61224	157572	322293	662593	0.500 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	4009 367683	15332	40595	85016	183119	0.500 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	29174 2190888	104569	269423	545431	1092458	0.500 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	30815 2396245	96349	278354	552071	1147753	0.500 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	16930 1463892	65977	174518	362855	719020	0.500 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	19560 1460858	67369	179321	373601	743476	0.500 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Lin1	16789 765929	41061	101058	197190	432506	1.00 80.0	4.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	8079 677378	31338	83490	168424	352343	0.500 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	10714 636915	31209	79202	159487	339495	1.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	27492 2197670	102665	275407	545139	1126584	0.500 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	21753 1793455	83914	218293	452805	903664	0.500 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	23561 2067213	92523	241121	500720	1063256	0.500 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	22371 1754994	81752	216099	429785	889389	0.500 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	15879 1618332	64479	188571	387614	800621	0.500 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	CBNZ d5	Lin1	17362 +++++	46009	115087	198236	444542	12.5 +++++	50.0	125	250	500
Benzene	FB	Ave	71389 5219835	254652	643552	1304790	2629668	0.500 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76607-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	22012 1694178	82020	212736	418998	863913	0.500 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	4013 379047	15974	40773	87134	183515	0.500 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	17619 1432437	66801	169472	360426	727175	0.500 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	24014 2256770	93416	255493	536158	1142894	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	15288 1220272	57616	149533	304770	621173	0.500 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Lin1	5367 +++++	15558	31806	73819	143153	10.0 +++++	40.0	100	200	400
Dibromomethane	FB	Ave	10465 754014	35005	91542	186811	386232	0.500 40.0	2.00	5.00	10.0	20.0
Dichlorobromomethane	FB	Ave	18471 1623059	71024	183344	385092	802519	0.500 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	15000 1458682	58613	161505	328686	687022	1.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	22064 2105978	85739	232360	491647	1021480	0.500 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	29321 2021263	94530	251443	502329	1040327	1.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	72342 5747631	263584	682210	1406145	2839447	0.500 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	18087 1880001	70951	199576	424386	893766	0.500 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	16804 1569832	63970	171654	370981	771193	0.500 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	13563 1065045	45670	126121	262589	534907	0.500 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	13687 1117819	48383	133109	278170	565508	0.500 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	24072 1899568	88248	232541	470212	955517	0.500 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	20126 1198496	63841	152478	312522	653147	1.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	12642 1263998	46804	134120	283716	610819	0.500 40.0	2.00	5.00	10.0	20.0
Ethylene Dibromide	CBNZ d5	Ave	12867 1085802	46850	127119	261979	550285	0.500 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	44678 3768296	172082	440967	913610	1863448	0.500 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76607-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	15206 1328565	54660	150328	313574	666343	0.500 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	24080 2053765	92962	239353	509603	1032362	0.500 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	28891 2546616	114311	300522	617270	1273577	0.500 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBNZ d5	Ave	30380 2526722	110719	302576	623213	1277231	0.500 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	44149 4261923	176367	473855	1018879	2093792	0.500 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Ave	7883 854603	28990	84432	184185	409192	0.500 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	75439 6614494	290552	770913	1612585	3339881	0.500 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	16690 1330842	60355	160251	331021	703942	0.500 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	18470 1614346	73996	194828	401532	827635	0.500 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	6233 442113	20630	56343	115387	235940	0.500 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	4117 386516	14421	43419	87618	192504	0.500 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	22437 1816894	78855	216487	453095	930273	0.500 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	16421 1534895	71795	187054	393766	795958	0.500 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	58395 5213040	235546	630487	1328311	2787741	0.500 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	19309 1601868	75002	200738	406132	818635	0.500 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCBd 4	Ave	53029 4617226	213699	556291	1189315	2454943	0.500 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	64108 5380878	246628	655997	1393213	2860569	0.500 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	73668 6489865	301781	780239	1703134	3489501	0.500 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	37094 3024092	145618	375321	799614	1647638	0.500 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	58934 5559216	252350	673579	1462824	3024705	0.500 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	39048 3109158	151619	391735	800344	1668423	0.500 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76607-1 Analy Batch No.: 270112

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/10/2017 15:44 Calibration End Date: 03/10/2017 17:36 Calibration ID: 38794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	52366 4647170	220130	576882	1257477	2560852	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	33612 2786882	141207	354390	765924	1563624	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2035 258907	10781	30083	67709	147969	0.500 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	22079 1686216	88693	223753	540084	982734	0.500 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Ave	9523 674628	34154	87351	210863	388326	0.500 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	57373 3982009	212120	518301	1308477	2352228	0.500 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	20209 1508980	82084	196071	502077	882560	0.500 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	15182 1158857	57281	141658	288837	599398	0.500 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	22066 1382618	68496	173474	347386	710819	0.500 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	65966 4848961	230958	576011	1201600	2482348	0.500 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	24315 1777237	84941	208193	441966	914921	0.500 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Lab Sample ID: ICV 240-270112/8 Calibration Date: 03/10/2017 17:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7202.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.1772	0.1000	0.00735	0.0100	-26.5*	20.0
Chloromethane	Ave	0.3842	0.3268	0.1000	0.00851	0.0100	-14.9	20.0
Vinyl chloride	Ave	0.3634	0.3412	0.1000	0.00939	0.0100	-6.1	20.0
Butadiene	Ave	0.3274	0.2903		0.00887	0.0100	-11.3	30.0
Bromomethane	Qua		0.1048	0.0500	0.00778	0.0100	-22.2*	20.0
Chloroethane	Ave	0.1810	0.1574	0.0500	0.00870	0.0100	-13.0	20.0
Dichlorofluoromethane	Ave	0.3880	0.3344		0.00862	0.0100	-13.8	20.0
Trichlorofluoromethane	Ave	0.2893	0.2630	0.1000	0.00909	0.0100	-9.1	20.0
Ethyl ether	Ave	0.2178	0.2181		0.0100	0.0100	0.2	20.0
Acrolein	Ave	0.0342	0.0378		0.0554	0.0500	10.7	50.0
1,1-Dichloroethene	Ave	0.2474	0.2427	0.1000	0.00981	0.0100	-1.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1713	0.1771	0.0500	0.0103	0.0100	3.4	20.0
Acetone	Qua		0.0713	0.0100	0.0211	0.0200	5.3	50.0
Iodomethane	Ave	0.3952	0.3804		0.00962	0.0100	-3.8	20.0
Carbon disulfide	Ave	0.7514	0.7442	0.1000	0.00990	0.0100	-1.0	20.0
3-Chloro-1-propene	Ave	0.1572	0.1580		0.0101	0.0100	0.5	20.0
Methyl acetate	Ave	0.1709	0.1643	0.1000	0.0481	0.0500	-3.8	20.0
Methylene Chloride	Lin1		0.2824	0.1000	0.0100	0.0100	0.0	50.0
2-Methyl-2-propanol	Ave	0.0219	0.0147		0.0672	0.100	-32.8	50.0
Acrylonitrile	Ave	0.0866	0.0840		0.0970	0.100	-3.0	20.0
Methyl tert-butyl ether	Ave	0.7768	0.7653	0.1000	0.00985	0.0100	-1.5	20.0
trans-1,2-Dichloroethene	Ave	0.2743	0.2764	0.1000	0.0101	0.0100	0.8	20.0
Hexane	Ave	0.0711	0.0749		0.0105	0.0100	5.3	20.0
1,1-Dichloroethane	Ave	0.4617	0.4557	0.2000	0.00987	0.0100	-1.3	20.0
Vinyl acetate	Ave	0.4750	0.4470		0.00941	0.0100	-5.9	50.0
2,2-Dichloropropane	Ave	0.2957	0.2779		0.00940	0.0100	-6.0	20.0
2-Butanone (MEK)	Lin1		0.0923	0.0100	0.0220	0.0200	9.9	20.0
cis-1,2-Dichloroethene	Ave	0.3088	0.3024	0.1000	0.00979	0.0100	-2.1	20.0
Chlorobromomethane	Ave	0.1403	0.1390		0.00991	0.0100	-0.9	20.0
Tetrahydrofuran	Ave	0.0716	0.0687		0.0192	0.0200	-4.0	20.0
Chloroform	Ave	0.4597	0.4562	0.2000	0.00993	0.0100	-0.7	20.0
1,1,1-Trichloroethane	Ave	0.3714	0.3711	0.1000	0.00999	0.0100	-0.0	20.0
Cyclohexane	Ave	0.4163	0.4402	0.1000	0.0106	0.0100	5.7	20.0
1,1-Dichloropropene	Ave	0.3656	0.3838		0.0105	0.0100	5.0	20.0
Carbon tetrachloride	Ave	0.3099	0.3074	0.1000	0.00992	0.0100	-0.8	20.0
Isobutyl alcohol	Lin1		0.0066		0.165	0.250	-34.2*	20.0
Benzene	Ave	1.113	1.102	0.5000	0.00991	0.0100	-0.9	20.0
1,2-Dichloroethane	Ave	0.3584	0.3583	0.1000	0.0100	0.0100	-0.0	20.0
n-Heptane	Ave	0.0723	0.0770		0.0106	0.0100	6.5	20.0
Trichloroethene	Ave	0.2960	0.2864	0.1500	0.00967	0.0100	-3.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Lab Sample ID: ICV 240-270112/8 Calibration Date: 03/10/2017 17:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7202.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4392	0.4578	0.1000	0.0104	0.0100	4.2	20.0
1,2-Dichloropropane	Ave	0.2548	0.2554	0.1000	0.0100	0.0100	0.3	20.0
1,4-Dioxane	Lin1		0.0012		0.0781	0.200	-60.9*	50.0
Dibromomethane	Ave	0.1597	0.1495		0.00936	0.0100	-6.4	20.0
Dichlorobromomethane	Ave	0.3206	0.3226	0.1500	0.0101	0.0100	0.6	20.0
2-Chloroethyl vinyl ether	Ave	0.1371	0.1306		0.00953	0.0100	-4.7	20.0
cis-1,3-Dichloropropene	Ave	0.4019	0.3922	0.1500	0.00976	0.0100	-2.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2173	0.2100	0.0500	0.0193	0.0200	-3.3	20.0
Toluene	Ave	1.633	1.598	0.4000	0.00978	0.0100	-2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4764	0.4580	0.1000	0.00962	0.0100	-3.8	20.0
Ethyl methacrylate	Ave	0.4170	0.4132		0.00991	0.0100	-0.9	20.0
1,1,2-Trichloroethane	Ave	0.3011	0.3049	0.1000	0.0101	0.0100	1.3	20.0
Tetrachloroethene	Ave	0.3154	0.3170	0.1500	0.0101	0.0100	0.5	20.0
1,3-Dichloropropane	Ave	0.5470	0.5269		0.00963	0.0100	-3.7	20.0
2-Hexanone	Ave	0.1919	0.1837	0.0500	0.0191	0.0200	-4.3	20.0
Chlorodibromomethane	Ave	0.3219	0.3127		0.00971	0.0100	-2.9	20.0
Ethylene Dibromide	Ave	0.3021	0.2959		0.00980	0.0100	-2.0	20.0
Chlorobenzene	Ave	1.055	1.039	0.3000	0.00985	0.0100	-1.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3607	0.3593		0.00996	0.0100	-0.4	20.0
Ethylbenzene	Ave	0.5763	0.5778		0.0100	0.0100	0.3	20.0
m-Xylene & p-Xylene	Ave	0.7077	0.7045		0.00995	0.0100	-0.5	20.0
o-Xylene	Ave	0.7115	0.7025		0.00987	0.0100	-1.3	20.0
Styrene	Ave	1.134	1.167	0.3000	0.0103	0.0100	2.9	20.0
Bromoform	Ave	0.2079	0.1986	0.1000	0.00955	0.0100	-4.5	20.0
Isopropylbenzene	Ave	1.834	1.832	0.1000	0.00999	0.0100	-0.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7204	0.6953	0.3000	0.00965	0.0100	-3.5	20.0
Bromobenzene	Ave	0.8570	0.8220		0.00959	0.0100	-4.1	20.0
1,2,3-Trichloropropane	Ave	0.2505	0.2415		0.00964	0.0100	-3.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1901	0.1911		0.0100	0.0100	0.5	20.0
N-Propylbenzene	Ave	0.9675	0.9394		0.00971	0.0100	-2.9	20.0
2-Chlorotoluene	Ave	0.8153	0.8151		0.0100	0.0100	-0.0	20.0
1,3,5-Trimethylbenzene	Ave	2.782	2.762		0.00993	0.0100	-0.7	20.0
4-Chlorotoluene	Ave	0.8690	0.8506		0.00979	0.0100	-2.1	20.0
tert-Butylbenzene	Ave	2.485	2.406		0.00968	0.0100	-3.2	20.0
1,2,4-Trimethylbenzene	Ave	2.918	2.784		0.00954	0.0100	-4.6	20.0
sec-Butylbenzene	Ave	3.504	3.378		0.00964	0.0100	-3.6	20.0
1,3-Dichlorobenzene	Ave	1.679	1.609	0.6000	0.00958	0.0100	-4.2	20.0
4-Isopropyltoluene	Ave	2.967	2.878		0.00970	0.0100	-3.0	20.0
1,4-Dichlorobenzene	Ave	1.730	1.653	0.5000	0.00956	0.0100	-4.4	20.0
n-Butylbenzene	Ave	2.551	2.474		0.00970	0.0100	-3.0	20.0
1,2-Dichlorobenzene	Ave	1.580	1.544	0.4000	0.00977	0.0100	-2.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Lab Sample ID: ICV 240-270112/8 Calibration Date: 03/10/2017 17:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7202.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1307	0.1264	0.0500	0.00967	0.0100	-3.3	50.0
1,2,4-Trichlorobenzene	Ave	1.016	0.8901	0.2000	0.00876	0.0100	-12.4	50.0
Hexachlorobutadiene	Ave	0.4052	0.3509		0.00866	0.0100	-13.4	20.0
Naphthalene	Ave	2.455	2.100		0.00855	0.0100	-14.5	50.0
1,2,3-Trichlorobenzene	Ave	0.9217	0.8025		0.00871	0.0100	-12.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2462	0.2164		0.00879	0.0100	-12.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3067	0.2738		0.00893	0.0100	-10.7	20.0
Toluene-d8 (Surr)	Ave	1.418	1.258		0.00887	0.0100	-11.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5202	0.4481		0.00861	0.0100	-13.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Lab Sample ID: ICV 240-270112/15 Calibration Date: 03/10/2017 20:34

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 18:21

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 20:12

Lab File ID: UXR7209.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0258	0.0266		0.103	0.100	3.2	20.0
Isopropyl ether	Ave	0.2431	0.2500		0.0103	0.0100	2.9	20.0
2-Chloro-1,3-butadiene	Ave	0.3997	0.4067		0.0102	0.0100	1.7	20.0
Tert-butyl ethyl ether	Ave	0.7593	0.7796		0.0103	0.0100	2.7	20.0
Ethyl acetate	Ave	0.2181	0.2003		0.0184	0.0200	-8.1	50.0
Propionitrile	Ave	0.0305	0.0301		0.0987	0.100	-1.3	20.0
Methacrylonitrile	Ave	0.1509	0.1459		0.0966	0.100	-3.4	20.0
Tert-amyl methyl ether	Ave	0.7356	0.7541		0.0103	0.0100	2.5	20.0
n-Butanol	Ave	0.0089	0.0049		0.137	0.250	-45.2*	20.0
Ethyl acrylate	Ave	0.2629	0.2504		0.00952	0.0100	-4.8	20.0
Methyl methacrylate	Ave	0.1992	0.1909		0.0192	0.0200	-4.2	20.0
2-Nitropropane	Ave	0.0544	0.0504		0.0185	0.0200	-7.3	20.0
n-Butyl acetate	Ave	0.2052	0.1875		0.00914	0.0100	-8.6	30.0
1-Chlorohexane	Ave	0.4784	0.4642		0.00970	0.0100	-3.0	20.0
Cyclohexanone	Ave	0.0227	0.0115		0.0507	0.100	-49.3*	20.0
Pentachloroethane	Lin1		0.1705		0.0167	0.0200	-16.3	20.0
1,2,3-Trimethylbenzene	Ave	2.890	2.881		0.00997	0.0100	-0.3	20.0
Benzyl chloride	Lin1		0.2248		0.00836	0.0100	-16.4	20.0
1,3,5-Trichlorobenzene	Ave	1.062	1.044		0.00983	0.0100	-1.7	20.0
2-Methylnaphthalene	Ave	1.514	1.378		0.0182	0.0200	-9.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Lab File ID: BFB1441.D BFB Injection Date: 03/14/2017

Instrument ID: A3UX17 BFB Injection Time: 10:32

Analysis Batch No.: 270478

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.4	
75	30.0 - 60.0 % of mass 95	50.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	50.0 - 120.00 % of mass 95	86.8	
175	5.0 - 9.0 % of mass 174	5.8	(6.7) 1
176	95.0 - 101.0 % of mass 174	83.6	(96.4) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-270478/2	UXR7237.D	03/14/2017	10:59
	CCV 240-270478/3	UXR7238.D	03/14/2017	11:22
	LCS 240-270478/4	UXR7239.D	03/14/2017	11:44
	MB 240-270478/6	UXR7241.D	03/14/2017	12:29
TB-031017	240-76607-1	UXR7256.D	03/14/2017	19:18
MRC-MW32A-031017	240-76607-2	UXR7257.D	03/14/2017	19:40
MRC-MW34A-031017	240-76607-3	UXR7258.D	03/14/2017	20:02
MRC-MW33A-031017	240-76607-4	UXR7259.D	03/14/2017	20:24
MRC-MW88B-031017	240-76607-5	UXR7260.D	03/14/2017	20:46
MRC-DUP02-031017	240-76607-6	UXR7261.D	03/14/2017	21:08
	240-76517-C-2 MS	UXR7262.D	03/14/2017	21:31
	240-76517-A-2 MSD	UXR7263.D	03/14/2017	21:53

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Lab Sample ID: CCVIS 240-270478/2 Calibration Date: 03/14/2017 10:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7237.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.2953	0.1000	0.0120	0.0100	20.2*	20.0
Chloromethane	Ave	0.3842	0.3419	0.1000	0.00890	0.0100	-11.0	20.0
Vinyl chloride	Ave	0.3634	0.3751	0.1000	0.0103	0.0100	3.2	20.0
Butadiene	Ave	0.3274	0.3411		0.0104	0.0100	4.2	20.0
Bromomethane	Qua		0.0658	0.0500	0.00465	0.0100	-53.5*	20.0
Chloroethane	Ave	0.1810	0.0996	0.0500	0.00551	0.0100	-44.9*	20.0
Dichlorofluoromethane	Ave	0.3880	0.2575		0.00663	0.0100	-33.7*	20.0
Trichlorofluoromethane	Ave	0.2893	0.2975	0.1000	0.0103	0.0100	2.8	20.0
Ethyl ether	Ave	0.2178	0.2192		0.0101	0.0100	0.6	20.0
Acrolein	Ave	0.0342	0.0335		0.0490	0.0500	-1.9	50.0
1,1-Dichloroethene	Ave	0.2474	0.2495	0.1000	0.0101	0.0100	0.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1713	0.1903	0.0500	0.0111	0.0100	11.1	20.0
Acetone	Qua		0.0885	0.0100	0.0271	0.0200	35.6	50.0
Iodomethane	Ave	0.3952	0.3781		0.00957	0.0100	-4.3	20.0
Carbon disulfide	Ave	0.7514	0.7378	0.1000	0.00982	0.0100	-1.8	20.0
3-Chloro-1-propene	Ave	0.1572	0.1596		0.0102	0.0100	1.5	20.0
Methyl acetate	Ave	0.1709	0.1732	0.1000	0.0507	0.0500	1.4	20.0
Methylene Chloride	Lin1		0.2851	0.1000	0.0101	0.0100	1.1	50.0
2-Methyl-2-propanol	Ave	0.0219	0.0214		0.0976	0.100	-2.4	50.0
Acrylonitrile	Ave	0.0866	0.0912		0.105	0.100	5.4	20.0
Methyl tert-butyl ether	Ave	0.7768	0.7896	0.1000	0.0102	0.0100	1.6	20.0
trans-1,2-Dichloroethene	Ave	0.2743	0.2699	0.1000	0.00984	0.0100	-1.6	20.0
Hexane	Ave	0.0711	0.0798		0.0112	0.0100	12.2	20.0
1,1-Dichloroethane	Ave	0.4617	0.4618	0.2000	0.0100	0.0100	0.0	20.0
Vinyl acetate	Ave	0.4750	0.4641		0.00977	0.0100	-2.3	50.0
2,2-Dichloropropane	Ave	0.2957	0.2918		0.00987	0.0100	-1.3	20.0
cis-1,2-Dichloroethene	Ave	0.3088	0.3065	0.1000	0.00993	0.0100	-0.7	20.0
2-Butanone (MEK)	Lin1		0.1080	0.0100	0.0258	0.0200	29.2*	20.0
Chlorobromomethane	Ave	0.1403	0.1398		0.00996	0.0100	-0.4	20.0
Tetrahydrofuran	Ave	0.0716	0.0742		0.0207	0.0200	3.6	20.0
Chloroform	Ave	0.4597	0.4582	0.2000	0.00997	0.0100	-0.3	20.0
1,1,1-Trichloroethane	Ave	0.3714	0.3727	0.1000	0.0100	0.0100	0.4	20.0
Cyclohexane	Ave	0.4163	0.4594	0.1000	0.0110	0.0100	10.4	20.0
1,1-Dichloropropene	Ave	0.3656	0.3753		0.0103	0.0100	2.7	20.0
Carbon tetrachloride	Ave	0.3099	0.3383	0.1000	0.0109	0.0100	9.2	20.0
Isobutyl alcohol	Lin1		0.0098		0.249	0.250	-0.3	20.0
Benzene	Ave	1.113	1.101	0.5000	0.00989	0.0100	-1.1	20.0
1,2-Dichloroethane	Ave	0.3584	0.3658	0.1000	0.0102	0.0100	2.0	20.0
n-Heptane	Ave	0.0723	0.0820		0.0113	0.0100	13.4	20.0
Trichloroethene	Ave	0.2960	0.3010	0.1500	0.0102	0.0100	1.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Lab Sample ID: CCVIS 240-270478/2 Calibration Date: 03/14/2017 10:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7237.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4392	0.4894	0.1000	0.0111	0.0100	11.4	20.0
1,2-Dichloropropane	Ave	0.2548	0.2505	0.1000	0.00983	0.0100	-1.7	20.0
1,4-Dioxane	Lin1		0.0023		0.154	0.200	-23.0	50.0
Dibromomethane	Ave	0.1597	0.1570		0.00983	0.0100	-1.7	20.0
Dichlorobromomethane	Ave	0.3206	0.3195	0.1500	0.00996	0.0100	-0.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1371	0.1397		0.0204	0.0200	1.9	20.0
cis-1,3-Dichloropropene	Ave	0.4019	0.3968	0.1500	0.00987	0.0100	-1.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2173	0.2238	0.0500	0.0206	0.0200	3.0	20.0
Toluene	Ave	1.633	1.623	0.4000	0.00993	0.0100	-0.7	20.0
trans-1,3-Dichloropropene	Ave	0.4764	0.4823	0.1000	0.0101	0.0100	1.2	20.0
Ethyl methacrylate	Ave	0.4170	0.4341		0.0104	0.0100	4.1	20.0
1,1,2-Trichloroethane	Ave	0.3011	0.3014	0.1000	0.0100	0.0100	0.0	20.0
Tetrachloroethene	Ave	0.3154	0.3237	0.1500	0.0103	0.0100	2.6	20.0
1,3-Dichloropropane	Ave	0.5470	0.5423		0.00991	0.0100	-0.9	20.0
2-Hexanone	Ave	0.1919	0.2015	0.0500	0.0210	0.0200	5.0	20.0
Chlorodibromomethane	Ave	0.3219	0.3239		0.0101	0.0100	0.6	20.0
Ethylene Dibromide	Ave	0.3021	0.3050		0.0101	0.0100	0.9	20.0
Chlorobenzene	Ave	1.055	1.065	0.3000	0.0101	0.0100	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3607	0.3546		0.00983	0.0100	-1.7	20.0
Ethylbenzene	Ave	0.5763	0.5888		0.0102	0.0100	2.2	20.0
m-Xylene & p-Xylene	Ave	0.7077	0.7086		0.0100	0.0100	0.1	20.0
o-Xylene	Ave	0.7115	0.7176		0.0101	0.0100	0.9	20.0
Styrene	Ave	1.134	1.150	0.3000	0.0101	0.0100	1.4	20.0
Bromoform	Ave	0.2079	0.2105	0.1000	0.0101	0.0100	1.2	20.0
Isopropylbenzene	Ave	1.834	1.885	0.1000	0.0103	0.0100	2.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7204	0.7203	0.3000	0.0100	0.0100	-0.0	20.0
Bromobenzene	Ave	0.8570	0.8359		0.00975	0.0100	-2.5	20.0
1,2,3-Trichloropropane	Ave	0.2505	0.2517		0.0100	0.0100	0.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1901	0.1886		0.00992	0.0100	-0.8	20.0
N-Propylbenzene	Ave	0.9675	0.9290		0.00960	0.0100	-4.0	20.0
2-Chlorotoluene	Ave	0.8153	0.8357		0.0103	0.0100	2.5	20.0
1,3,5-Trimethylbenzene	Ave	2.782	2.811		0.0101	0.0100	1.0	20.0
4-Chlorotoluene	Ave	0.8690	0.8636		0.00994	0.0100	-0.6	20.0
tert-Butylbenzene	Ave	2.485	2.491		0.0100	0.0100	0.2	20.0
1,2,4-Trimethylbenzene	Ave	2.918	2.914		0.00999	0.0100	-0.1	20.0
sec-Butylbenzene	Ave	3.504	3.543		0.0101	0.0100	1.1	20.0
1,3-Dichlorobenzene	Ave	1.679	1.636	0.6000	0.00974	0.0100	-2.6	20.0
4-Isopropyltoluene	Ave	2.967	3.026		0.0102	0.0100	2.0	20.0
1,4-Dichlorobenzene	Ave	1.730	1.680	0.5000	0.00971	0.0100	-2.9	20.0
n-Butylbenzene	Ave	2.551	2.548		0.00999	0.0100	-0.1	20.0
1,2-Dichlorobenzene	Ave	1.580	1.569	0.4000	0.00993	0.0100	-0.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Lab Sample ID: CCVIS 240-270478/2 Calibration Date: 03/14/2017 10:59

Instrument ID: A3UX17 Calib Start Date: 03/10/2017 15:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/10/2017 17:36

Lab File ID: UXR7237.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1307	0.1362	0.0500	0.0104	0.0100	4.2	50.0
1,2,4-Trichlorobenzene	Ave	1.016	0.9412	0.2000	0.00927	0.0100	-7.3	50.0
Hexachlorobutadiene	Ave	0.4052	0.3714		0.00917	0.0100	-8.3	20.0
Naphthalene	Ave	2.455	2.273		0.00926	0.0100	-7.4	50.0
1,2,3-Trichlorobenzene	Ave	0.9217	0.8336		0.00904	0.0100	-9.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2462	0.2197		0.00893	0.0100	-10.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3067	0.2727		0.00889	0.0100	-11.1	20.0
Toluene-d8 (Surr)	Ave	1.418	1.272		0.00897	0.0100	-10.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5202	0.4547		0.00874	0.0100	-12.6	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Sample No.: STD8260 240-270112/4 Date Analyzed: 03/10/2017 16:29

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXR7198.D Heated Purge: (Y/N) N

Calibration ID: 38794

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1220460	5.76	889295	8.47	485235	10.72
UPPER LIMIT		2440920	6.26	1778590	8.97	970470	11.22
LOWER LIMIT		610230	5.26	444648	7.97	242618	10.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-270112/8		1165755	5.76	841337	8.47	457147	10.72
ICV 240-270112/15		1086377	5.76	759076	8.47	406958	10.72
CCVIS 240-270478/2		1057140	5.76	765918	8.47	414469	10.72

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Sample No.: CCVIS 240-270478/2 Date Analyzed: 03/14/2017 10:59

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXR7237.D Heated Purge: (Y/N) N

Calibration ID: 38796

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1057140	5.76	765918	8.47	414469	10.72
UPPER LIMIT		2114280	6.26	1531836	8.97	828938	11.22
LOWER LIMIT		528570	5.26	382959	7.97	207235	10.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-270478/3		1069902	5.76	759726	8.47	395630	10.72
LCS 240-270478/4		1085669	5.76	774074	8.47	428743	10.72
MB 240-270478/6		1030712	5.76	723679	8.47	376905	10.72
240-76607-1	TB-031017	982645	5.76	686686	8.47	357403	10.72
240-76607-2	MRC-MW32A-031017	970049	5.76	678183	8.47	362944	10.72
240-76607-3	MRC-MW34A-031017	970574	5.76	685517	8.47	346298	10.72
240-76607-4	MRC-MW33A-031017	972818	5.76	675965	8.47	345641	10.72
240-76607-5	MRC-MW88B-031017	979322	5.76	680785	8.47	356876	10.72
240-76607-6	MRC-DUP02-031017	960099	5.76	667275	8.47	358517	10.72
240-76517-C-2 MS		1014105	5.76	731419	8.47	388442	10.72
240-76517-A-2 MSD		1043978	5.76	752876	8.47	406619	10.72

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Instrument ID: A3UX17 Start Date: 03/10/2017 15:12

Analysis Batch Number: 270112 End Date: 03/10/2017 20:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-270112/1		03/10/2017 15:12	1	BFB1439.D	DB-624 0.18(mm)
STD8260 240-270112/2 IC		03/10/2017 15:44	1	UXR7196.D	DB-624 0.18(mm)
STD8260 240-270112/3 IC		03/10/2017 16:07	1	UXR7197.D	DB-624 0.18(mm)
STD8260 240-270112/4 ICIS		03/10/2017 16:29	1	UXR7198.D	DB-624 0.18(mm)
STD8260 240-270112/5 IC		03/10/2017 16:52	1	UXR7199.D	DB-624 0.18(mm)
STD8260 240-270112/6 IC		03/10/2017 17:14	1	UXR7200.D	DB-624 0.18(mm)
STD8260 240-270112/7 IC		03/10/2017 17:36	1	UXR7201.D	DB-624 0.18(mm)
ICV 240-270112/8		03/10/2017 17:59	1	UXR7202.D	DB-624 0.18(mm)
STDA9 240-270112/9 IC		03/10/2017 18:21	1		DB-624 0.18(mm)
STDA9 240-270112/10 IC		03/10/2017 18:44	1		DB-624 0.18(mm)
STDA9 240-270112/11 IC		03/10/2017 19:06	1		DB-624 0.18(mm)
STDA9 240-270112/12 IC		03/10/2017 19:28	1		DB-624 0.18(mm)
STDA9 240-270112/13 IC		03/10/2017 19:50	1		DB-624 0.18(mm)
STDA9 240-270112/14 IC		03/10/2017 20:12	1		DB-624 0.18(mm)
ICV 240-270112/15		03/10/2017 20:34	1	UXR7209.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76607-1

SDG No.:

Instrument ID: A3UX17 Start Date: 03/14/2017 10:32

Analysis Batch Number: 270478 End Date: 03/14/2017 21:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-270478/1		03/14/2017 10:32	1	BFB1441.D	DB-624 0.18(mm)
CCVIS 240-270478/2		03/14/2017 10:59	1	UXR7237.D	DB-624 0.18(mm)
CCV 240-270478/3		03/14/2017 11:22	1	UXR7238.D	DB-624 0.18(mm)
LCS 240-270478/4		03/14/2017 11:44	1	UXR7239.D	DB-624 0.18(mm)
ZZZZZ		03/14/2017 12:07	1		DB-624 0.18(mm)
MB 240-270478/6		03/14/2017 12:29	1	UXR7241.D	DB-624 0.18(mm)
ZZZZZ		03/14/2017 14:06	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 14:28	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 14:51	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 15:13	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 15:35	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 15:57	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 16:19	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 16:41	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 17:03	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 17:26	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 17:48	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 18:11	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 18:33	1		DB-624 0.18(mm)
ZZZZZ		03/14/2017 18:56	1		DB-624 0.18(mm)
240-76607-1		03/14/2017 19:18	1	UXR7256.D	DB-624 0.18(mm)
240-76607-2		03/14/2017 19:40	1	UXR7257.D	DB-624 0.18(mm)
240-76607-3		03/14/2017 20:02	1	UXR7258.D	DB-624 0.18(mm)
240-76607-4		03/14/2017 20:24	1	UXR7259.D	DB-624 0.18(mm)
240-76607-5		03/14/2017 20:46	1	UXR7260.D	DB-624 0.18(mm)
240-76607-6		03/14/2017 21:08	1	UXR7261.D	DB-624 0.18(mm)
240-76517-C-2 MS		03/14/2017 21:31	1	UXR7262.D	DB-624 0.18(mm)
240-76517-A-2 MSD		03/14/2017 21:53	1	UXR7263.D	DB-624 0.18(mm)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW34A-031017	240-76607-3	91
MRC-MW33A-031017	240-76607-4	89
MRC-DUP02-031017	240-76607-6	89
	MB 200-114948/1-A	97
	LCS 200-114948/2-A	87
	LCSD 200-114948/3-A	88

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24343_06.D

Lab ID: LCS 200-114948/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	1.90	95	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24343_07.D

Lab ID: LCSD 200-114948/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	2.00	1.90	95	0	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Lab File ID: Z24343_08.D Lab Sample ID: MB 200-114948/1-A

Matrix: Water Date Extracted: 03/15/2017 20:28

Instrument ID: CHZ.i Date Analyzed: 03/16/2017 14:23

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-114948/2-A	Z24343_06.D	03/16/2017 13:49
	LCSD 200-114948/3-A	Z24343_07.D	03/16/2017 14:06
MRC-MW34A-031017	240-76607-3	Z24343_11.D	03/16/2017 15:14
MRC-MW33A-031017	240-76607-4	Z24343_12.D	03/16/2017 15:31
MRC-DUP02-031017	240-76607-6	Z24343_13.D	03/16/2017 15:48

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76607-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-114948/1-A

Matrix: Water | Lab File ID: Z24343_08.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 03/15/2017 20:28

Sample wt/vol: 100(mL) | Date Analyzed: 03/16/2017 14:23

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 114955 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	97		46-130

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Lab File ID: Z24230_01.D BFB Injection Date: 03/08/2017

Instrument ID: CHZ.i BFB Injection Time: 10:08

Analysis Batch No.: 114713

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 80.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.3	
175	5.0 - 9.0 % of mass 174	4.9	(7.2) 1
176	>95.0 but <101.0 % of mass 174	66.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-114713/2	Z24230_02.D	03/08/2017	10:20
	IC 200-114713/3	Z24230_03.D	03/08/2017	10:37
	IC 200-114713/4	Z24230_04.D	03/08/2017	10:54
	ICIS 200-114713/5	Z24230_05.D	03/08/2017	11:12
	IC 200-114713/6	Z24230_06.D	03/08/2017	11:29
	IC 200-114713/7	Z24230_07.D	03/08/2017	11:46
	IC 200-114713/8	Z24230_08.D	03/08/2017	12:03
	ICV 200-114713/9	Z24230_09.D	03/08/2017	12:21
	CCVL 200-114713/10	Z24230_10.D	03/08/2017	13:29
	CCVL 200-114955/5	Z24343_05.D	03/16/2017	13:17
	LCS 200-114948/2-A	Z24343_06.D	03/16/2017	13:49
	LCSD 200-114948/3-A	Z24343_07.D	03/16/2017	14:06
	MB 200-114948/1-A	Z24343_08.D	03/16/2017	14:23
MRC-MW34A-031017	240-76607-3	Z24343_11.D	03/16/2017	15:14
MRC-MW33A-031017	240-76607-4	Z24343_12.D	03/16/2017	15:31
MRC-DUP02-031017	240-76607-6	Z24343_13.D	03/16/2017	15:48
	CCV 200-114955/14	Z24343_14.D	03/16/2017	16:05

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-76607-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-76607-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	2773 110705	6218 242998	14480	27995	48146	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	134256 141434	151964 143621	134009	136068	115570	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Lab Sample ID: ICV 200-114713/9 Calibration Date: 03/08/2017 12:21

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_09.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5752	0.0500	184	200	-7.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Lab Sample ID: CCVL 200-114713/10 Calibration Date: 03/08/2017 13:29

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_10.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7218	0.0500	11.6	10.0	15.6	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.5972	0.0500	495	500	-1.1	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Lab Sample ID: CCVL 200-114955/5 Calibration Date: 03/16/2017 13:17

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24343_05.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5899	0.0500	9.45	10.0	-5.5	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6887	0.0500	570	500	14.1	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Lab Sample ID: CCV 200-114955/14 Calibration Date: 03/16/2017 16:05

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24343_14.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5746	0.0500	92.0	100	-8.0	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6459	0.0500	535	500	7.0	30.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Sample No.: ICIS 200-114713/5 Date Analyzed: 03/08/2017 11:12

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24230_05.D Heated Purge: (Y/N) N

Calibration ID: 36785

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224595	3.32				
UPPER LIMIT		336893	3.82				
LOWER LIMIT		112298	2.82				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-114713/9		202920	3.32				
CCVL 200-114713/10		249320	3.34				
CCVL 200-114955/5		249351	3.25				
LCS 200-114948/2-A		301206	3.26				
LCSD 200-114948/3-A		284617	3.25				
MB 200-114948/1-A		266067	3.25				
240-76607-3	MRC-MW34A-031017	247484	3.22				
240-76607-4	MRC-MW33A-031017	299929	3.25				
240-76607-6	MRC-DUP02-031017	290810	3.24				
CCV 200-114955/14		272188	3.24				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-114713/1		03/08/2017 10:08	1	Z24230_01.D	Rxi-5ms 0.25(mm)
IC 200-114713/2		03/08/2017 10:20	1	Z24230_02.D	Rxi-5ms 0.25(mm)
IC 200-114713/3		03/08/2017 10:37	1	Z24230_03.D	Rxi-5ms 0.25(mm)
IC 200-114713/4		03/08/2017 10:54	1	Z24230_04.D	Rxi-5ms 0.25(mm)
ICIS 200-114713/5		03/08/2017 11:12	1	Z24230_05.D	Rxi-5ms 0.25(mm)
IC 200-114713/6		03/08/2017 11:29	1	Z24230_06.D	Rxi-5ms 0.25(mm)
IC 200-114713/7		03/08/2017 11:46	1	Z24230_07.D	Rxi-5ms 0.25(mm)
IC 200-114713/8		03/08/2017 12:03	1	Z24230_08.D	Rxi-5ms 0.25(mm)
ICV 200-114713/9		03/08/2017 12:21	1	Z24230_09.D	Rxi-5ms 0.25(mm)
CCVL 200-114713/10		03/08/2017 13:29	1	Z24230_10.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 13:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:43	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:02	1		Rxi-5ms 0.25(mm)
CCV 200-114713/23		03/08/2017 17:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:07	1		Rxi-5ms 0.25(mm)
CCV 200-114713/37		03/08/2017 21:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:42	1		Rxi-5ms 0.25(mm)

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GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/09/2017 00:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:17	1		Rxi-5ms 0.25(mm)
CCV 200-114713/48		03/09/2017 00:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:51	1		Rxi-5ms 0.25(mm)
CCV 200-114713/50		03/09/2017 01:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:34	1		Rxi-5ms 0.25(mm)
CCV 200-114713/54		03/09/2017 09:50	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/16/2017 13:17

Analysis Batch Number: 114955 End Date: 03/16/2017 16:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-114955/5		03/16/2017 13:17	1	Z24343_05.D	Rxi-5ms 0.25(mm)
LCS 200-114948/2-A		03/16/2017 13:49	1	Z24343_06.D	Rxi-5ms 0.25(mm)
LCSD 200-114948/3-A		03/16/2017 14:06	1	Z24343_07.D	Rxi-5ms 0.25(mm)
MB 200-114948/1-A		03/16/2017 14:23	1	Z24343_08.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/16/2017 14:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/16/2017 14:57	1		Rxi-5ms 0.25(mm)
240-76607-3		03/16/2017 15:14	1	Z24343_11.D	Rxi-5ms 0.25(mm)
240-76607-4		03/16/2017 15:31	1	Z24343_12.D	Rxi-5ms 0.25(mm)
240-76607-6		03/16/2017 15:48	1	Z24343_13.D	Rxi-5ms 0.25(mm)
CCV 200-114955/14		03/16/2017 16:05	1	Z24343_14.D	Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/22/2017 15:37

Analysis Batch Number: 115085 End Date: 03/23/2017 09:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-115085/3		03/22/2017 15:37	1	Z24401_03.D	Rxi-5ms 0.25(mm)
CCVL 200-115085/4		03/22/2017 15:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:12	1		Rxi-5ms 0.25(mm)
CCV 200-115085/17		03/22/2017 19:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:09	1		Rxi-5ms 0.25(mm)
CCV 200-115085/31		03/22/2017 23:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:50	1		Rxi-5ms 0.25(mm)
CCV 200-115085/37		03/23/2017 01:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 08:57	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 09:13	2		Rxi-5ms 0.25(mm)
CCV 200-115085/40		03/23/2017 09:30	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-76607-1

SDG No.:

Batch Number: 114948 Batch Start Date: 03/15/17 20:28 Batch Analyst: Keith, Robert C

Batch Method: 3535A Batch End Date: 03/15/17 21:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00025		
MB 200-114948/1		3535A, 522		100 mL	2000 uL		100 uL		
LCS 200-114948/2		3535A, 522		100 mL	2000 uL	100 uL	100 uL		
LCSD 200-114948/3		3535A, 522		100 mL	2000 uL	100 uL	100 uL		
240-76607-D-3	MRC-MW34A-031017	3535A, 522	T	100 mL	2000 uL		100 uL		
240-76607-D-4	MRC-MW33A-031017	3535A, 522	T	100 mL	2000 uL		100 uL		
240-76607-D-6	MRC-DUP02-031017	3535A, 522	T	100 mL	2000 uL		100 uL		

Batch Notes	
Acid ID	1004720
Acid Name	HCl
First End time	2100
Analyst ID - Reagent Drop Witness	MAP
Solvent Lot #	1015054
Solvent Name	MeCl2
SPE Cartridge ID	8088705
First Start time	2028

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

VOA Calibration Calculations:

Initial Calibration 3/10/2017
Instrument A3UX17

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.5	71389	1140039	10	1.2524	1.2524
2	254652	1160506	10	1.0972	1.0972
5	643552	1183924	10	1.0872	1.0872
10	1304790	1220460	10	1.0691	1.0691
20	2629668	1231205	10	1.0679	1.0679
40	5219835	1184425	10	1.1018	1.1018
			Average	1.1126	1.1126
			Standard Deviation	0.0699	
			RSD	0.0628	
			%RSD	6.2833	6.3

Internal standard for benzene is fluorobenzene

Continuing Calibration 03/14/2017@ 10:59
Instrument A3UX17

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
10	1163708	1057140	10	1.1008	-1.0874826	1.101	-1.1

MRC Groundwater
SDG 240-76607-1

SAMPLE IDENTIFICATION	MRC-MW34A-031017	
COMPOUND	Trichloroethene	
COMPOUND AREA	481752	
INTERNAL STANDARD AMOUNT (ng)	10	
DILUTION FACTOR	1	
INTERNAL STANDARD AREA	970574	
AVERAGE RRF	0.296	
VOLUME OF SAMPLE	5	
VOLUME OF EXTRACT	5.00	
CONCENTRATION =	16.77	ug/L

SVOA Calibration Calculations:

Initial Calibration 3/8/2017
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.01	2773	226947	0.5	0.61094	0.6109
0.02	6218	251612	0.5	0.61782	0.6178
0.05	14480	218926	0.5	0.66141	0.6614
0.1	27995	224595	0.5	0.62323	0.6232
0.2	48146	200782	0.5	0.59948	0.5995
0.4	110705	227238	0.5	0.60897	0.609
0.8	242998	233784	0.5	0.64963	0.6496
			Average	0.62450	0.6245
			Standard Deviation	0.0227	
			RSD	0.0363	
			%RSD	3.63475	3.6

Continuing Calibration 03/16/2017 @ 16:05
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
0.1	31278	272188	0.5	0.5746	-7.995819	0.5746	-8

MRC Groundwater
SDG 240-76607

SAMPLE IDENTIFICATION	MRC-MW33A-031017	
COMPOUND	1,4-Dioxane	
COMPOUND AREA	3095	
INTERNAL STANDARD AMOUNT (ng)	0.5	
DILUTION FACTOR	1	
INTERNAL STANDARD AREA	299929	
AVERAGE RRF	0.6245	
VOLUME OF SAMPLE	0.1	
VOLUME OF EXTRACT	2.00	
CONCENTRATION =	0.17	ug/L

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **APRIL 18, 2017**

FROM: **L. GANSER** **COPIES:** **DV FILE**

SUBJECT: **DATA VALIDATION – VOC, 1,4-DIOXANE, OVG, METALS, MISCELLANEOUS LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC) SAMPLE DELIVERY GROUP (SDG) 240-76678-1**

SAMPLES: 5/Aqueous/

MRC-MW60A-031317	MRC-MW60B-031317	MRC-MW78B-031317
MRC-MW81A-031317	TB-031317	

Overview

The sample set for LMC-MRC, SDG 240-76678-1 consisted of four (4) aqueous environmental samples and one (1) trip blank. The samples were analyzed for volatile organic compounds (VOC), 1,4-dioxane, organic volatile gases (OVG), metals, and/or miscellaneous parameters including alkalinity, ammonia, chloride, dissolved organic carbon (DOC), nitrate, nitrite, orthophosphate, phosphate, sulfate, and total dissolved solids (TDS). The trip blank was only analyzed for VOC. No field duplicate sample pairs were included in this SDG.

The samples were collected by Tetra Tech on March 13, 2017 and analyzed by TestAmerica, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C for VOC, 6010C/6020A/7470A for metals, and 9060 for DOC, RSK-175 for OVG, EPA methods 522 for 1,4-dioxane, 300 for anions, and 350 for ammonia, and standard methods 2320B for alkalinity, 2540C for TDS, and 4500 for orthosphosphate/phosphate analytical and reporting protocols.

The data contained in this SDG were validated with regard the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/preparation blanks, Interference Check Sample (ICS), surrogate spike recoveries, laboratory control sample/laboratory control sample duplicate results, internal standard areas and recoveries, ICP serial dilution results, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were noted.

Minor

- VOC continuing calibration percent difference (%D) was greater than quality control (QC) limits (20%) on 3/23/2017 at 8:56 for methylcyclohexane and 2-hexanone affecting all samples. All results for these parameters were nondetect and were qualified as estimated (UJ).

- Methylene chloride was detected in the laboratory blank at the following maximum concentration:

Parameter	Maximum Concentration (ug/L)	Action Level (ug/L)
Methylene chloride	1.58	15.8

Dilution factor, if applicable, was taken into consideration when evaluating for blank contamination. Detected results reported below the action level were qualified as non-detected, (U), due to blank contamination. The trip blank was not qualified for laboratory blank contamination.

- Laboratory Control Sample (LCS) percent recovery (%) was less than QC limits for methylcyclohexane. Nondetected results for methylcyclohexane were qualified as estimated (UJ).

- The following analytes were detected in the laboratory preparation and calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration (ug/L)	Reporting Limit (RL) (> or <)
Barium(1)	0.776	<RL
Copper(1)	0.388	<RL
Nickel(1)	0.438	<RL
Potassium(2)	1810	<RL
Sodium(2)	1020	<RL
Antimony(3)	1.15	<RL
Cobalt(3)	0.054	<RL
Lead(3)	0.155	<RL
Molybdenum(3)	0.746	<RL
Selenium(3)	0.312	<RL

1. Concentration in method blank affecting all samples.
2. Maximum concentration in continuing calibration blanks on 3/16/2017 at 15:36 affecting all samples.
3. Maximum concentration in continuing calibration blank on 3/16/2017 at 15:10, 16:00, and 16:50 affecting all samples.

Dilution factor, if applicable, was taken into consideration when evaluating for blank contamination. Detected results reported below the RL were qualified as non-detected, (U), due to blank contamination.

- Metal internal standard %R was less than 60%QC limit for Rhodium (Rh), Indium (In), and Bismuth (Bi) in sample MRC-MW78B-031317. Results for associated analytes were qualified as estimated (J) and (UJ) for detected and nondetected results.

- Detected results reported below the RL limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Non-detected results were reported to the MDL.

The following samples were analyzed at dilution resulting in elevated detection limits for nondetected results:

Sample	Parameter	Dilution
MRC-MW60A-031317	VOC	50X
MRC-MW60B-031317	VOC	200X

Sulfate was present in the calibration blank at 0.137 mg/L, which is less than the RL. No action was taken as the detected result for sulfate was greater than the RL.

Executive Summary

Laboratory Performance: Calibration noncompliance was noted for VOCs. Methylene chloride, metals, and sulfate were present in laboratory preparation and method blanks. LCS noncompliance was noted for one VOC. Internal standard noncompliance was noted for several metals.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Review" (January 2017) and the "National Functional Guidelines for Inorganic Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech
Leanne M. Ganser
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-MW60A-031317			MRC-MW60B-031317			MRC-MW78B-031317			TB-031317		
SDG: 240-76678-1	LAB_ID	240-76678-3			240-76678-4			240-76678-5			240-76678-1		
FRACTION: OV	SAMP_DATE	3/13/2017			3/13/2017			3/13/2017			3/13/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		12	U		46	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		16	U		64	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		17	U		68	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		21	U		82	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		13	U		50	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		14	U		54	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		14	U		54	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		24	U		94	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		12	U		46	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		13	U		52	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		15	U		60	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		15	U		60	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		16	U		64	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		12	U		46	U		0.23	U		0.23	U	
2-BUTANONE		51	U		200	U		1	U		1	U	
2-HEXANONE		62	UJ	C	250	UJ	C	1.2	UJ	C	1.2	UJ	C
4-METHYL-2-PENTANONE		36	U		140	U		0.71	U		0.71	U	
ACETONE		88	U		350	U		1.8	U		1.8	U	
BENZENE		14	U		56	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		15	U		60	U		0.3	U		0.3	U	
BROMOFORM		22	U		86	U		0.43	U		0.43	U	
BROMOMETHANE		21	U		84	U		0.42	U		0.42	U	
CARBON DISULFIDE		17	U		68	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		18	U		70	U		0.35	U		0.35	U	
CHLOROBENZENE		16	U		64	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		13	U		50	U		0.25	U		0.25	U	
CHLOROETHANE		21	U		82	U		1.2			0.41	U	
CHLOROFORM		16	U		62	U		0.31	U		0.31	U	
CHLOROMETHANE		22	U		86	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		520			220			1.3			0.3	U	
CIS-1,3-DICHLOROPROPENE		13	U		52	U		0.26	U		0.26	U	
CYCLOHEXANE		22	U		88	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		25	U		100	U		0.5	U		0.5	U	
ETHYLBENZENE		13	U		52	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		11	U		42	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW60A-031317			MRC-MW60B-031317			MRC-MW78B-031317			TB-031317		
SDG: 240-76678-1	LAB_ID	240-76678-3			240-76678-4			240-76678-5			240-76678-1		
FRACTION: OV	SAMP_DATE	3/13/2017			3/13/2017			3/13/2017			3/13/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		72	U		290	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		23	UJ	CE	90	UJ	CE	0.45	UJ	CE	0.45	UJ	CE
METHYL TERT-BUTYL ETHER		14	U		54	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		72	U	A	290	U	A	0.53	U		0.56	J	P
STYRENE		12	U		46	U		0.23	U		0.23	U	
TETRACHLOROETHENE		15	U		60	U		0.3	U		0.3	U	
TOLUENE		12	U		46	U		0.23	U		0.23	U	
TOTAL XYLENES		12	U		48	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		15	U		58	U		0.93	J	P	0.29	U	
TRANS-1,3-DICHLOROPROPENE		16	U		62	U		0.31	U		0.31	U	
TRICHLOROETHENE		1300			7100			6.7			0.33	U	
TRICHLOROFLUOROMETHANE		25	U		100	U		0.5	U		0.5	U	
VINYL CHLORIDE		69			90	U		0.98	J	P	0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW60A-031317			MRC-MW60B-031317			MRC-MW81A-031317		
SDG: 240-76678-1	LAB_ID	240-76678-3			240-76678-4			240-76678-2		
FRACTION: OS	SAMP_DATE	3/13/2017			3/13/2017			3/13/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		2.4			0.86			2		

PROJ_NO: 07776	NSAMPLE	MRC-MW60B-031317		
SDG: 240-76678-1	LAB_ID	240-76678-4		
FRACTION: OVG	SAMP_DATE	3/13/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ETHANE		0.14	U	
ETHENE		0.13	U	
METHANE		67		

PROJ_NO: 07776	NSAMPLE	MRC-MW60A-031317			MRC-MW60B-031317			MRC-MW78B-031317			MRC-MW81A-031317		
SDG: 240-76678-1	LAB_ID	240-76678-3			240-76678-4			240-76678-5			240-76678-2		
FRACTION: M	SAMP_DATE	3/13/2017			3/13/2017			3/13/2017			3/13/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		2.2			0.59	U	A	0.4	U	A	1.3	U	A
ARSENIC		1.5	J	P	0.49	J	P	2.1	J	PN	3.1	J	P
BARIUM		59			61			190	J	N	160		
BERYLLIUM		2.4			0.44	J	P	0.4	U		0.98	J	P
CADMIUM		0.31	U		0.31	U		0.31	UJ	N	0.31	U	
CALCIUM					3400	J	P						
CHROMIUM		0.43	J	P	0.29	J	P	2.1	J	N	0.41	J	P
COBALT		73			41			57	J	N	4.3		
COPPER		0.38	U	A	0.36	U		2.9	J	N	0.44	U	A
LEAD		0.55	U	A	0.37	U	A	1.4	J	N	0.32	U	A
MAGNESIUM					5200								
MOLYBDENUM		1.5	U	A	0.51	U		2.4	U	A	0.65	U	A
NICKEL		89			71			11	J	N	12		
POTASSIUM					2900	U	A						
SELENIUM		1	U	A	0.48	U		0.84	U	A	3.4	U	A
SILICON DIOXIDE					10000								
SILVER		0.03	U		0.03	U		0.03	UJ	N	0.03	U	
SODIUM					11000								
THALLIUM		0.28	U		0.28	U		0.28	UJ	N	0.28	U	
VANADIUM		0.54	U		0.63	J	P	3.1	J	PN	0.54	U	
ZINC		26			120			42	J	N	21		

PROJ_NO: 07776	NSAMPLE	MRC-MW60B-031317		
SDG: 240-76678-1	LAB_ID	240-76678-4		
FRACTION: MISC	SAMP_DATE	3/13/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ALKALINITY		55		
AMMONIA		0.87	U	
CHLORIDE		18		
DISSOLVED ORGANIC CARBON		0.41	J	P
NITRATE-N		0.035	U	
NITRITE-N		0.038	U	
ORTHOPHOSPHATE-P		0.02	J	P
SULFATE		2.9		
TOTAL DISSOLVED SOLIDS		110		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: TB-031317 | Lab Sample ID: 240-76678-1

Matrix: Water | Lab File ID: U1256081.D

Analysis Method: 8260C | Date Collected: 03/13/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 12:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: TB-031317 | Lab Sample ID: 240-76678-1

Matrix: Water | Lab File ID: U1256081.D

Analysis Method: 8260C | Date Collected: 03/13/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 12:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U *	1.0	0.45
75-09-2	Methylene Chloride	0.56	J B	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	85		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW60A-031317 | Lab Sample ID: 240-76678-3

Matrix: Water | Lab File ID: U1256091.D

Analysis Method: 8260C | Date Collected: 03/13/2017 11:19

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 16:47

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	12	U	50	12
79-34-5	1,1,2,2-Tetrachloroethane	16	U	50	16
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	21	U	50	21
79-00-5	1,1,2-Trichloroethane	17	U	50	17
75-34-3	1,1-Dichloroethane	13	U	50	13
75-35-4	1,1-Dichloroethene	14	U	50	14
120-82-1	1,2,4-Trichlorobenzene	14	U	50	14
96-12-8	1,2-Dibromo-3-Chloropropane	24	U	100	24
106-93-4	Ethylene Dibromide	12	U	50	12
95-50-1	1,2-Dichlorobenzene	13	U	50	13
107-06-2	1,2-Dichloroethane	15	U	50	15
78-87-5	1,2-Dichloropropane	15	U	50	15
541-73-1	1,3-Dichlorobenzene	16	U	50	16
106-46-7	1,4-Dichlorobenzene	12	U	50	12
78-93-3	2-Butanone (MEK)	51	U	500	51
591-78-6	2-Hexanone	62	U	500	62
108-10-1	4-Methyl-2-pentanone (MIBK)	36	U	500	36
67-64-1	Acetone	88	U	500	88
71-43-2	Benzene	14	U	50	14
75-27-4	Dichlorobromomethane	15	U	50	15
75-25-2	Bromoform	22	U	50	22
74-83-9	Bromomethane	21	U	50	21
75-15-0	Carbon disulfide	17	U	50	17
56-23-5	Carbon tetrachloride	18	U	50	18
108-90-7	Chlorobenzene	16	U	50	16
75-00-3	Chloroethane	21	U	50	21
67-66-3	Chloroform	16	U	50	16
74-87-3	Chloromethane	22	U	50	22
156-59-2	cis-1,2-Dichloroethene	520		50	15
10061-01-5	cis-1,3-Dichloropropene	13	U	50	13
110-82-7	Cyclohexane	22	U	50	22
124-48-1	Chlorodibromomethane	13	U	50	13
75-71-8	Dichlorodifluoromethane	25	U	50	25
100-41-4	Ethylbenzene	13	U	50	13
98-82-8	Isopropylbenzene	11	U	50	11

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW60A-031317 | Lab Sample ID: 240-76678-3

Matrix: Water | Lab File ID: U1256091.D

Analysis Method: 8260C | Date Collected: 03/13/2017 11:19

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 16:47

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	72	U	500	72
1634-04-4	Methyl tert-butyl ether	14	U	50	14
108-87-2	Methylcyclohexane	23	U *	50	23
75-09-2	Methylene Chloride	72	B	50	27
100-42-5	Styrene	12	U	50	12
127-18-4	Tetrachloroethene	15	U	50	15
108-88-3	Toluene	12	U	50	12
156-60-5	trans-1,2-Dichloroethene	15	U	50	15
10061-02-6	trans-1,3-Dichloropropene	16	U	50	16
79-01-6	Trichloroethene	1300		50	17
75-69-4	Trichlorofluoromethane	25	U	50	25
75-01-4	Vinyl chloride	69		50	23
1330-20-7	Xylenes, Total	12	U	100	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	110		80-120
460-00-4	4-Bromofluorobenzene (Surr)	85		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW60B-031317 | Lab Sample ID: 240-76678-4

Matrix: Water | Lab File ID: U1256092.D

Analysis Method: 8260C | Date Collected: 03/13/2017 13:46

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 17:12

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	46	U	200	46
79-34-5	1,1,2,2-Tetrachloroethane	64	U	200	64
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	82	U	200	82
79-00-5	1,1,2-Trichloroethane	68	U	200	68
75-34-3	1,1-Dichloroethane	50	U	200	50
75-35-4	1,1-Dichloroethene	54	U	200	54
120-82-1	1,2,4-Trichlorobenzene	54	U	200	54
96-12-8	1,2-Dibromo-3-Chloropropane	94	U	400	94
106-93-4	Ethylene Dibromide	46	U	200	46
95-50-1	1,2-Dichlorobenzene	52	U	200	52
107-06-2	1,2-Dichloroethane	60	U	200	60
78-87-5	1,2-Dichloropropane	60	U	200	60
541-73-1	1,3-Dichlorobenzene	64	U	200	64
106-46-7	1,4-Dichlorobenzene	46	U	200	46
78-93-3	2-Butanone (MEK)	200	U	2000	200
591-78-6	2-Hexanone	250	U	2000	250
108-10-1	4-Methyl-2-pentanone (MIBK)	140	U	2000	140
67-64-1	Acetone	350	U	2000	350
71-43-2	Benzene	56	U	200	56
75-27-4	Dichlorobromomethane	60	U	200	60
75-25-2	Bromoform	86	U	200	86
74-83-9	Bromomethane	84	U	200	84
75-15-0	Carbon disulfide	68	U	200	68
56-23-5	Carbon tetrachloride	70	U	200	70
108-90-7	Chlorobenzene	64	U	200	64
75-00-3	Chloroethane	82	U	200	82
67-66-3	Chloroform	62	U	200	62
74-87-3	Chloromethane	86	U	200	86
156-59-2	cis-1,2-Dichloroethene	220		200	60
10061-01-5	cis-1,3-Dichloropropene	52	U	200	52
110-82-7	Cyclohexane	88	U	200	88
124-48-1	Chlorodibromomethane	50	U	200	50
75-71-8	Dichlorodifluoromethane	100	U	200	100
100-41-4	Ethylbenzene	52	U	200	52
98-82-8	Isopropylbenzene	42	U	200	42

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW60B-031317 | Lab Sample ID: 240-76678-4

Matrix: Water | Lab File ID: U1256092.D

Analysis Method: 8260C | Date Collected: 03/13/2017 13:46

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 17:12

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	290	U	2000	290
1634-04-4	Methyl tert-butyl ether	54	U	200	54
108-87-2	Methylcyclohexane	90	U *	200	90
75-09-2	Methylene Chloride	290	B	200	110
100-42-5	Styrene	46	U	200	46
127-18-4	Tetrachloroethene	60	U	200	60
108-88-3	Toluene	46	U	200	46
156-60-5	trans-1,2-Dichloroethene	58	U	200	58
10061-02-6	trans-1,3-Dichloropropene	62	U	200	62
79-01-6	Trichloroethene	7100		200	66
75-69-4	Trichlorofluoromethane	100	U	200	100
75-01-4	Vinyl chloride	90	U	200	90
1330-20-7	Xylenes, Total	48	U	400	48

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	84		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW78B-031317 | Lab Sample ID: 240-76678-5

Matrix: Water | Lab File ID: U1256090.D

Analysis Method: 8260C | Date Collected: 03/13/2017 15:16

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 16:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	1.2		1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.3		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW78B-031317 | Lab Sample ID: 240-76678-5

Matrix: Water | Lab File ID: U1256090.D

Analysis Method: 8260C | Date Collected: 03/13/2017 15:16

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 16:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U *	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.93	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	6.7		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.98	J	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-124
1868-53-7	Dibromofluoromethane (Surr)	111		80-120
460-00-4	4-Bromofluorobenzene (Surr)	89		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-132

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW81A-031317 | Lab Sample ID: 240-76678-2

Matrix: Water | Lab File ID: Z24401_08.D

Analysis Method: 522 | Date Collected: 03/13/2017 09:51

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 16:57

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.0		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	90		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW60A-031317 | Lab Sample ID: 240-76678-3

Matrix: Water | Lab File ID: Z24401_09.D

Analysis Method: 522 | Date Collected: 03/13/2017 11:19

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 17:14

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.4		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	98		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW60B-031317 | Lab Sample ID: 240-76678-4

Matrix: Water | Lab File ID: Z24401_10.D

Analysis Method: 522 | Date Collected: 03/13/2017 13:46

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 17:31

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.86		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	100		46-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW60B-031317 | Lab Sample ID: 240-76678-4

Matrix: Water | Lab File ID: RSK0316017.D

Analysis Method: RSK-175 | Date Collected: 03/13/2017 13:46

Sample wt/vol: 33(mL) | Date Analyzed: 03/16/2017 19:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 270845 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	67		0.50	0.080
74-84-0	Ethane	0.14	U	0.50	0.14
74-85-1	Ethene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	76		76-121

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW81A-031317 Lab Sample ID: 240-76678-2

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG ID.:

Matrix: Water Date Sampled: 03/13/2017 09:51

Reporting Basis: WET Date Received: 03/14/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.3	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	3.1	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	160	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.98	1.0	0.40	ug/L	J		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	4.3	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.41	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.44	2.0	0.36	ug/L	J	B	1	6020A
7439-98-7	Molybdenum	0.65	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	12	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	0.32	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	3.4	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	21	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW60A-031317 Lab Sample ID: 240-76678-3

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG ID.:

Matrix: Water Date Sampled: 03/13/2017 11:19

Reporting Basis: WET Date Received: 03/14/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.0	0.27	ug/L			1	6020A
7440-38-2	Arsenic	1.5	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	59	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	2.4	1.0	0.40	ug/L			1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	73	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.43	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.38	2.0	0.36	ug/L	J	B	1	6020A
7439-98-7	Molybdenum	1.5	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	89	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	0.55	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	1.0	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	26	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW60B-031317 Lab Sample ID: 240-76678-4

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG ID.:

Matrix: Water Date Sampled: 03/13/2017 13:46

Reporting Basis: WET Date Received: 03/14/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	3400	5000	710	ug/L	J		1	6010C
7440-09-7	Potassium	2900	5000	70	ug/L	J		1	6010C
7439-95-4	Magnesium	5200	5000	230	ug/L			1	6010C
7440-23-5	Sodium	11000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	10000	4300	560	ug/L			4	6010C
7440-36-0	Antimony	0.59	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	0.49	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	61	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.44	1.0	0.40	ug/L	J		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	41	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.29	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.36	2.0	0.36	ug/L	U		1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	71	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	0.37	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.63	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	120	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW78B-031317 Lab Sample ID: 240-76678-5

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG ID.:

Matrix: Water Date Sampled: 03/13/2017 15:16

Reporting Basis: WET Date Received: 03/14/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.40	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	2.1	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	190	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	57	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	2.1	2.0	0.26	ug/L			1	6020A
7440-50-8	Copper	2.9	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	2.4	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	11	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	1.4	1.0	0.16	ug/L			1	6020A
7782-49-2	Selenium	0.84	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	3.1	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	42	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW60B-031317 Lab Sample ID: 240-76678-4

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG ID.:

Matrix: Water Date Sampled: 03/13/2017 13:46

Reporting Basis: WET Date Received: 03/14/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	55	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	18	1.0	0.41	mg/L			1	300.0
14797-65-0	Nitrite as N	0.038	0.10	0.038	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.035	0.10	0.035	mg/L	U		1	300.0
14808-79-8	Sulfate	2.9	1.0	0.13	mg/L			1	300.0
	Orthophosphate as P	0.020	0.10	0.0050	mg/L	J		1	4500 P E-1999
	Total Dissolved Solids	110	10	7.4	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW60B-031317 Lab Sample ID: 240-76678-4

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG ID.:

Matrix: Water Date Sampled: 03/13/2017 13:46

Reporting Basis: WET Date Received: 03/14/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	0.41	1.0	0.080	mg/L	J		1	9060

Appendix C

Support Documentation

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

4.0/3.7

Chain of Custody Record

180325

testAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No(s):
Client Contact: Mr. Stuart Cameron	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com	COC No: 240-41091-17888.1
Company: Tetra Tech, Inc.			Page: Page 1 of 2
Address: 20251 Century Blvd Suite 200	Due Date Requested:		Job #:
City: Germantown	TAT Requested (days): Standard		
State, Zip: MD, 20874			
Phone: 301 528-3022	PO #: 1093454		
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776		
Project Name: MRC 2017 GW	Project #: 24015639		
Site: Middle River Center	SSOW#:		

BALTIMORE

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (GC/MS Sim) 522	TAL metals (6020A)	MEE (RSK-175)	Diss DOC (9060)	Alkalinity (2320B)	Ammonia (SM4500NH3)	Total Select metals (6010C)	Anions, NO2, NO3 (300)	Anions, Cl, SO4 (300.28D)	Calcd-Total Diss (2540C)	PE ortho (4500)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A													
TB-031317	3/13/17	—	G	Water			2													
MRC-MW81A-031317	↓	0951	↓	Water			-	2	1	-	-	-	-	-	-	-	-	-		
MRC-MW60A-031317	↓	1119	↓	Water			3	2	1	-	-	-	-	-	-	-	-	-		
MRC-MW60B-031317	↓	1346	↓	Water			3	2	1	3	3	1	1	1	1	→				
MRC-MW78B-031317	↓	1516	↓	Water			3	-	1	-	-	-	-	-	-	-	-	-		
				Water																
				Water																
				Water																
				Water																
				Water																
				Water																

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

240-76678 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Pryor	3/13/17 1530	TA INC	[signature]	3/13/17 1530	TA
[signature]	3/13/17 1600	TA	[signature]	3/14/17 10:15	TANC

Custody Seals Intact: | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab File ID: BFB3443.D BFB Injection Date: 01/04/2017

Instrument ID: A3UX12 BFB Injection Time: 18:06

Analysis Batch No.: 261782

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 60.0 % of mass 95	45.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	83.1	
175	5.0 - 9.0 % of mass 174	6.2	(7.5) 1
176	95.0 - 101.0 % of mass 174	79.3	(95.5) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-261782/6	U1254930.D	01/04/2017	19:48
	STD8260 240-261782/7	U1254931.D	01/04/2017	20:13
	STD8260 240-261782/8	U1254932.D	01/04/2017	20:37
	ICIS 240-261782/9	U1254933.D	01/04/2017	21:02
	STD8260 240-261782/10	U1254934.D	01/04/2017	21:26
	STD8260 240-261782/11	U1254935.D	01/04/2017	21:51
	ICV 240-261782/18	U1254943.D	01/05/2017	01:07
	ICV 240-261782/19	U1254944.D	01/05/2017	01:31

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab File ID: BFB3504.D BFB Injection Date: 03/23/2017

Instrument ID: A3UX12 BFB Injection Time: 08:29

Analysis Batch No.: 271642

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 60.0 % of mass 95	46.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	78.9	
175	5.0 - 9.0 % of mass 174	5.9	(7.5) 1
176	95.0 - 101.0 % of mass 174	78.2	(99.2) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-271642/3	U1256075.D	03/23/2017	08:56
	LCS 240-271642/4	U1256076.D	03/23/2017	09:20
	CCV 240-271642/5	U1256077.D	03/23/2017	09:45
	MB 240-271642/7	U1256079.D	03/23/2017	10:34
TB-031317	240-76678-1	U1256081.D	03/23/2017	12:01
MRC-MW78B-031317	240-76678-5	U1256090.D	03/23/2017	16:22
MRC-MW60A-031317	240-76678-3	U1256091.D	03/23/2017	16:47
MRC-MW60B-031317	240-76678-4	U1256092.D	03/23/2017	17:12
MRC-MW60A-031317 MS	240-76678-3 MS	U1256099.D	03/23/2017	20:02
MRC-MW60A-031317 MSD	240-76678-3 MSD	U1256100.D	03/23/2017	20:27

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76678-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-261782/6	U1254930.D
Level 2	STD8260 240-261782/7	U1254931.D
Level 3	STD8260 240-261782/8	U1254932.D
Level 4	ICIS 240-261782/9	U1254933.D
Level 5	STD8260 240-261782/10	U1254934.D
Level 6	STD8260 240-261782/11	U1254935.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.4071 0.3751	0.3756	0.4519	0.3574	0.4285	Ave		0.3993			0.1000	9.1		20.0			
Chloromethane	0.5467 0.4898	0.5242	0.5091	0.4986	0.4962	Ave		0.5108			0.1000	4.2		20.0			
Vinyl chloride	0.5506 0.4910	0.4716	0.5113	0.4820	0.5045	Ave		0.5018			0.1000	5.6		20.0			
Butadiene	0.6591 0.4523	0.5525	0.5156	0.4541	0.4940	Ave		0.5213				14.9		20.0			
Bromomethane	0.3674 0.2557	0.3019	0.2704	0.2713	0.2629	Ave		0.2883			0.0500	14.5		20.0			
Chloroethane	0.3265 0.3193	0.3122	0.3269	0.3184	0.3322	Ave		0.3226			0.0500	2.3		20.0			
Dichlorofluoromethane	0.6796 0.6241	0.6021	0.6070	0.6327	0.6260	Ave		0.6286				4.4		20.0			
Trichlorofluoromethane	0.3828 0.4063	0.3792	0.4420	0.3711	0.4393	Ave		0.4035			0.1000	7.7		20.0			
Ethyl ether	0.2370 0.2839	0.3193	0.2820	0.2868	0.2823	Ave		0.2819				9.3		20.0			
Acrolein	0.0586 0.0465	0.0645	0.0480	0.0480	0.0491	Ave		0.0524				14.0		20.0			
1,1-Dichloroethene	0.5640 0.5494	0.5707	0.5668	0.5651	0.5374	Ave		0.5589			0.1000	2.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2978 0.2897	0.3497	0.3397	0.3218	0.3055	Ave		0.3174			0.0500	7.5		20.0			
Acetone	+++++ 0.1200	0.2215	0.1262	0.1322	0.1245	Lin1	0.2038	0.1206			0.0100				0.9990		0.9900
Iodomethane	0.5878 0.5267	0.5615	0.5247	0.5346	0.5341	Ave		0.5449				4.6		20.0			
Carbon disulfide	1.2899 0.9526	1.1196	1.0120	1.0069	1.0061	Ave		1.0645			0.1000	11.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76678-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.6210 0.3277	0.5791	0.5426	0.3933	0.3862	Qua	0.2080	0.4694	-0.002399						0.9960		0.9900
Methyl acetate	0.3912 0.2619	0.3554	0.2642	0.2018	0.2639	Lin1	0.3597	0.2515			0.1000				0.9910		0.9900
Methylene Chloride	+++++ 0.4713	0.6069	0.4991	0.4768	0.4793	Ave		0.5067			0.1000	11.2		20.0			
2-Methyl-2-propanol	0.0464 0.0453	0.0550	0.0433	0.0471	0.0482	Ave		0.0475				8.4		20.0			
Acrylonitrile	0.1536 0.1502	0.1591	0.1458	0.1521	0.1493	Ave		0.1517				3.0		20.0			
trans-1,2-Dichloroethene	0.4305 0.4370	0.4475	0.4276	0.4424	0.4340	Ave		0.4365			0.1000	1.7		20.0			
Methyl tert-butyl ether	1.0427 1.0276	1.0339	0.9955	1.0040	0.9988	Ave		1.0171			0.1000	2.0		20.0			
Hexane	0.4486 0.3943	0.4501	0.4630	0.4278	0.4054	Ave		0.4315				6.3		20.0			
1,1-Dichloroethane	0.5335 0.5647	0.6038	0.5627	0.5728	0.5722	Ave		0.5683			0.2000	4.0		20.0			
Vinyl acetate	0.8483 0.6698	0.8788	0.6659	0.6839	0.6710	Ave		0.7363				13.5		20.0			
cis-1,2-Dichloroethene	0.4797 0.4613	0.4772	0.4761	0.4680	0.4663	Ave		0.4714			0.1000	1.5		20.0			
2,2-Dichloropropane	0.2862 0.2300	0.2787	0.2689	0.2557	0.2419	Ave		0.2602				8.4		20.0			
2-Butanone (MEK)	+++++ 0.1870	0.2513	0.1753	0.1880	0.1879	Ave		0.1979			0.0100	15.3		20.0			
Chlorobromomethane	0.2504 0.2548	0.2768	0.2645	0.2612	0.2670	Ave		0.2625				3.6		20.0			
Tetrahydrofuran	0.1437 0.1224	0.1462	0.1238	0.1280	0.1244	Ave		0.1314				8.1		20.0			
Chloroform	0.4612 0.4916	0.5153	0.5004	0.4949	0.4938	Ave		0.4929			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.3724 0.3778	0.3484	0.4017	0.3901	0.3914	Ave		0.3803			0.1000	4.9		20.0			
Cyclohexane	0.4902 0.4885	0.5629	0.5622	0.5272	0.4938	Ave		0.5208			0.1000	6.8		20.0			
1,1-Dichloropropene	0.4736 0.4223	0.4147	0.4437	0.4344	0.4313	Ave		0.4367				4.7		20.0			
Carbon tetrachloride	0.2764 0.3400	0.3256	0.3542	0.3458	0.3376	Ave		0.3299			0.1000	8.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76678-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0145 0.0138	0.0182	0.0131	0.0142	0.0143	Ave		0.0147				12.2		20.0			
Benzene	1.3184 1.3483	1.4147	1.3479	1.3538	1.3535	Ave		1.3561			0.5000	2.3		20.0			
1,2-Dichloroethane	0.3651 0.4052	0.4177	0.3982	0.4103	0.3990	Ave		0.3992			0.1000	4.6		20.0			
n-Heptane	+++++ 0.1963	0.8681	0.2777	0.2325	0.2096	Lin1	0.6975	0.1906							0.9980		0.9900
Trichloroethene	0.3521 0.3308	0.3278	0.3305	0.3354	0.3293	Ave		0.3343			0.1500	2.7		20.0			
Methylcyclohexane	0.5425 0.4799	0.5349	0.5480	0.5216	0.4945	Ave		0.5202			0.1000	5.3		20.0			
1,2-Dichloropropane	0.2940 0.3277	0.3284	0.3293	0.3345	0.3338	Ave		0.3246			0.1000	4.7		20.0			
Dibromomethane	0.2154 0.2187	0.2359	0.2135	0.2215	0.2231	Ave		0.2213				3.6		20.0			
1,4-Dioxane	+++++ 0.0053	0.0047	0.0043	0.0056	0.0058	Ave		0.0051				12.2		20.0			
Dichlorobromomethane	0.3039 0.3837	0.3136	0.3569	0.3820	0.3867	Ave		0.3545			0.1500	10.5		20.0			
2-Chloroethyl vinyl ether	0.2031 0.2247	0.2155	0.2079	0.2154	0.2210	Ave		0.2146				3.7		20.0			
cis-1,3-Dichloropropene	0.5374 0.5622	0.4897	0.5287	0.5494	0.5611	Ave		0.5381			0.1500	5.0		20.0			
4-Methyl-2-pentanone (MIBK)	0.3710 0.3700	0.4169	0.3623	0.3690	0.3699	Ave		0.3765			0.0500	5.3		20.0			
Toluene	2.4054 1.9097	2.1056	1.9344	1.9227	1.9428	Ave		2.0367			0.4000	9.5		20.0			
trans-1,3-Dichloropropene	0.6033 0.6816	0.5873	0.6294	0.6594	0.6759	Ave		0.6395			0.1000	6.1		20.0			
Ethyl methacrylate	0.6392 0.6699	0.7146	0.6403	0.6515	0.6768	Ave		0.6654				4.3		20.0			
1,1,2-Trichloroethane	0.3671 0.4004	0.4116	0.3953	0.3989	0.3994	Ave		0.3954			0.1000	3.8		20.0			
Tetrachloroethene	0.4602 0.4473	0.4499	0.4621	0.4561	0.4463	Ave		0.4536			0.1500	1.5		20.0			
1,3-Dichloropropane	0.7612 0.7606	0.7546	0.7525	0.7556	0.7656	Ave		0.7583				0.6		20.0			
2-Hexanone	0.4349 0.3767	0.4193	0.3752	0.3745	0.3792	Ave		0.3933			0.0500	6.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76678-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2505 0.3980	0.1957	0.3295	0.3617	0.3875	Lin1	-0.126	0.3877							0.9970		0.9900
Ethylene Dibromide	0.3477 0.4074	0.3918	0.3876	0.4160	0.3998	Ave		0.3917				6.1		20.0			
Chlorobenzene	1.3885 1.2746	1.2181	1.2466	1.2582	1.2712	Ave		1.2762			0.3000	4.6		20.0			
1,1,1,2-Tetrachloroethane	0.3475 0.4176	0.3761	0.3946	0.4071	0.4097	Ave		0.3921				6.7		20.0			
Ethylbenzene	0.6162 0.6897	0.6814	0.6794	0.6853	0.6928	Ave		0.6741				4.3		20.0			
m-Xylene & p-Xylene	0.8299 0.8801	0.8167	0.8549	0.8704	0.8774	Ave		0.8549				3.1		20.0			
o-Xylene	0.7826 0.8896	0.8376	0.8457	0.8789	0.8880	Ave		0.8537				4.8		20.0			
Styrene	1.4423 1.5513	1.4182	1.4227	1.4953	1.5407	Ave		1.4784			0.3000	4.0		20.0			
Bromoform	+++++ 0.2562	0.0737	0.1755	0.2107	0.2451	Lin1	-0.230	0.2471			0.1000				0.9930		0.9900
Isopropylbenzene	2.0448 2.1338	1.9970	2.0977	2.1108	2.1135	Ave		2.0829			0.1000	2.5		20.0			
1,1,2,2-Tetrachloroethane	1.0211 0.9923	1.0907	1.0040	1.0174	0.9746	Ave		1.0167			0.3000	3.9		20.0			
Bromobenzene	0.8713 0.9105	0.9356	0.9302	0.9299	0.9096	Ave		0.9145				2.6		20.0			
1,2,3-Trichloropropane	0.2029 0.3176	0.3604	0.3169	0.3224	0.3246	Ave		0.3075				17.5		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.2345	0.0779	0.1757	0.2039	0.2343	Lin1	-0.194	0.2315							0.9960		0.9900
N-Propylbenzene	0.9262 0.9528	0.9436	0.9708	0.9948	0.9806	Ave		0.9615				2.6		20.0			
2-Chlorotoluene	0.7637 0.8271	0.7619	0.8313	0.8573	0.8462	Ave		0.8146				5.1		20.0			
1,3,5-Trimethylbenzene	2.8199 2.8972	2.7248	2.9305	2.9894	2.9509	Ave		2.8855				3.4		20.0			
4-Chlorotoluene	0.8573 0.8935	0.8134	0.8887	0.9113	0.9080	Ave		0.8787				4.2		20.0			
tert-Butylbenzene	2.5660 2.5018	2.4943	2.5784	2.6222	2.5580	Ave		2.5535				1.9		20.0			
1,2,4-Trimethylbenzene	3.0654 3.0898	2.9766	3.0641	3.1925	3.1619	Ave		3.0917				2.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76678-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.4904 3.6046	3.6075	3.7613	3.7660	3.6807	Ave		3.6517				2.9		20.0			
1,3-Dichlorobenzene	1.8328 1.8172	1.8411	1.8028	1.8787	1.8420	Ave		1.8358			0.6000	1.4		20.0			
4-Isopropyltoluene	3.2094 3.2422	3.0996	3.2455	3.3867	3.2893	Ave		3.2455				2.9		20.0			
1,4-Dichlorobenzene	1.9452 1.8706	1.9787	1.8895	1.9378	1.8836	Ave		1.9176			0.5000	2.2		20.0			
n-Butylbenzene	2.8330 2.7474	2.7183	2.7930	2.8584	2.7784	Ave		2.7881				1.9		20.0			
1,2-Dichlorobenzene	1.8001 1.8015	1.8403	1.8269	1.8591	1.8234	Ave		1.8252			0.4000	1.2		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.2453	0.1484	0.2133	0.2399	0.2533	Ave		0.2200			0.0500	19.4		20.0			
1,2,4-Trichlorobenzene	1.4292 1.2461	1.2900	1.3195	1.2997	1.2942	Ave		1.3131			0.2000	4.7		20.0			
Hexachlorobutadiene	0.5236 0.4603	0.5333	0.5126	0.5078	0.4741	Ave		0.5020				5.7		20.0			
Naphthalene	3.9068 3.7804	3.8057	3.6850	3.8663	3.8784	Ave		3.8204				2.1		20.0			
1,2,3-Trichlorobenzene	1.2668 1.1884	1.2382	1.1763	1.2264	1.2065	Ave		1.2171				2.7		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2626	0.2609	0.2578	0.2699	0.2631	Ave		0.2628				1.7		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3335	0.3532	0.2921	0.3517	0.3414	Ave		0.3344				7.5		20.0			
Toluene-d8 (Surr)	+++++ 1.5865	1.6558	1.5199	1.6136	1.6097	Ave		1.5971				3.1		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.6336	0.6570	0.5985	0.6334	0.6411	Ave		0.6327				3.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICV 240-261782/19 Calibration Date: 01/05/2017 01:31

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 19:48

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/04/2017 21:51

Lab File ID: U1254944.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2628	0.2634		0.0166	0.0165	0.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3344	0.3090		0.0153	0.0165	-7.6	20.0
Toluene-d8 (Surr)	Ave	1.597	1.565		0.0162	0.0165	-2.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6327	0.6139		0.0160	0.0165	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICV 240-261782/19 Calibration Date: 01/05/2017 01:31

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 22:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/05/2017 00:42

Lab File ID: U1254944.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0554		0.203	0.200	1.7	20.0
Isopropyl ether	Ave	0.2871	0.3137		0.0219	0.0200	9.3	20.0
2-Chloro-1,3-butadiene	Ave	0.4652	0.4981		0.0214	0.0200	7.1	20.0
Tert-butyl ethyl ether	Ave	1.012	1.052		0.0208	0.0200	4.0	20.0
Ethyl acetate	Ave	0.3687	0.3669		0.0398	0.0400	-0.5	50.0
Propionitrile	Ave	0.0606	0.0643		0.212	0.200	6.2	20.0
Methacrylonitrile	Ave	0.2389	0.2449		0.205	0.200	2.5	20.0
Tert-amyl methyl ether	Ave	1.052	1.071		0.0204	0.0200	1.8	20.0
n-Butanol	Ave	0.0138	0.0140		0.506	0.500	1.1	20.0
Ethyl acrylate	Ave	0.5026	0.5184		0.0206	0.0200	3.1	20.0
Methyl methacrylate	Ave	0.3296	0.3399		0.0413	0.0400	3.1	20.0
2-Nitropropane	Ave	0.0922	0.0978		0.0425	0.0400	6.2	20.0
n-Butyl acetate	Ave	0.7717	0.7705		0.0200	0.0200	-0.2	30.0
1-Chlorohexane	Ave	0.5718	0.5979		0.0209	0.0200	4.6	20.0
Cyclohexanone	Ave	0.0210	0.0217		0.206	0.200	3.2	20.0
Pentachloroethane	Qua		0.1646		0.0288	0.0400	-27.9*	20.0
1,2,3-Trimethylbenzene	Ave	3.228	3.325		0.0206	0.0200	3.0	20.0
Benzyl chloride	Lin1		1.945		0.0207	0.0200	3.4	20.0
1,3,5-Trichlorobenzene	Ave	1.297	1.358		0.0209	0.0200	4.7	20.0
2-Methylnaphthalene	Ave	2.319	2.463		0.0425	0.0400	6.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCVIS 240-271642/3 Calibration Date: 03/23/2017 08:56

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 19:48

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/04/2017 21:51

Lab File ID: U1256075.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3993	0.4271	0.1000	0.0214	0.0200	7.0	20.0
Chloromethane	Ave	0.5108	0.5958	0.1000	0.0233	0.0200	16.6	20.0
Vinyl chloride	Ave	0.5018	0.5518	0.1000	0.0220	0.0200	9.9	20.0
Butadiene	Ave	0.5213	0.4761		0.0183	0.0200	-8.7	20.0
Bromomethane	Ave	0.2883	0.2872	0.0500	0.0199	0.0200	-0.4	20.0
Chloroethane	Ave	0.3226	0.3511	0.0500	0.0218	0.0200	8.8	20.0
Dichlorofluoromethane	Ave	0.6286	0.7288		0.0232	0.0200	15.9	20.0
Trichlorofluoromethane	Ave	0.4035	0.4336	0.1000	0.0215	0.0200	7.5	20.0
Ethyl ether	Ave	0.2819	0.3140		0.0223	0.0200	11.4	20.0
Acrolein	Ave	0.0524	0.0490		0.0934	0.100	-6.6	50.0
1,1-Dichloroethene	Ave	0.5589	0.6148	0.1000	0.0220	0.0200	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3174	0.2853	0.0500	0.0180	0.0200	-10.1	20.0
Acetone	Lin1		0.1401	0.0100	0.0448	0.0400	12.0	50.0
Iodomethane	Ave	0.5449	0.5720		0.0210	0.0200	5.0	20.0
Carbon disulfide	Ave	1.065	1.071	0.1000	0.0201	0.0200	0.7	20.0
3-Chloro-1-propene	Qua		0.5494		0.0266	0.0200	32.9*	20.0
Methyl acetate	Lin1		0.2522	0.1000	0.0989	0.100	-1.1	20.0
Methylene Chloride	Ave	0.5067	0.5538	0.1000	0.0219	0.0200	9.3	50.0
2-Methyl-2-propanol	Ave	0.0475	0.0354		0.149	0.200	-25.5	50.0
Acrylonitrile	Ave	0.1517	0.1405		0.185	0.200	-7.4	20.0
trans-1,2-Dichloroethene	Ave	0.4365	0.4869	0.1000	0.0223	0.0200	11.5	20.0
Methyl tert-butyl ether	Ave	1.017	0.9307	0.1000	0.0183	0.0200	-8.5	20.0
Hexane	Ave	0.4315	0.3271		0.0152	0.0200	-24.2*	20.0
1,1-Dichloroethane	Ave	0.5683	0.6341	0.2000	0.0223	0.0200	11.6	20.0
Vinyl acetate	Ave	0.7363	0.5642		0.0153	0.0200	-23.4	50.0
2,2-Dichloropropane	Ave	0.2602	0.2640		0.0203	0.0200	1.4	20.0
cis-1,2-Dichloroethene	Ave	0.4714	0.5426	0.1000	0.0230	0.0200	15.1	20.0
2-Butanone (MEK)	Ave	0.1979	0.1804	0.0100	0.0365	0.0400	-8.8	20.0
Chlorobromomethane	Ave	0.2625	0.2916		0.0222	0.0200	11.1	20.0
Tetrahydrofuran	Ave	0.1314	0.1032		0.0314	0.0400	-21.5*	20.0
Chloroform	Ave	0.4929	0.5836	0.2000	0.0237	0.0200	18.4	20.0
1,1,1-Trichloroethane	Ave	0.3803	0.3613	0.1000	0.0190	0.0200	-5.0	20.0
Cyclohexane	Ave	0.5208	0.4532	0.1000	0.0174	0.0200	-13.0	20.0
1,1-Dichloropropene	Ave	0.4367	0.4503		0.0206	0.0200	3.1	20.0
Carbon tetrachloride	Ave	0.3299	0.2947	0.1000	0.0179	0.0200	-10.7	20.0
Isobutyl alcohol	Ave	0.0147	0.0098		0.333	0.500	-33.4*	20.0
Benzene	Ave	1.356	1.511	0.5000	0.0223	0.0200	11.4	20.0
1,2-Dichloroethane	Ave	0.3992	0.4545	0.1000	0.0228	0.0200	13.8	20.0
n-Heptane	Lin1		0.1909		0.0164	0.0200	-18.1	20.0
Trichloroethene	Ave	0.3343	0.3644	0.1500	0.0218	0.0200	9.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCVIS 240-271642/3 Calibration Date: 03/23/2017 08:56

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 19:48

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/04/2017 21:51

Lab File ID: U1256075.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5202	0.4021	0.1000	0.0155	0.0200	-22.7*	20.0
1,2-Dichloropropane	Ave	0.3246	0.3784	0.1000	0.0233	0.0200	16.6	20.0
Dibromomethane	Ave	0.2213	0.2322		0.0210	0.0200	4.9	20.0
1,4-Dioxane	Ave	0.0051	0.0042		0.328	0.400	-18.1	50.0
Dichlorobromomethane	Ave	0.3545	0.4038	0.1500	0.0228	0.0200	13.9	20.0
2-Chloroethyl vinyl ether	Ave	0.2146	0.1788		0.0333	0.0400	-16.7	20.0
cis-1,3-Dichloropropene	Ave	0.5381	0.5934	0.1500	0.0221	0.0200	10.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3765	0.3319	0.0500	0.0353	0.0400	-11.9	20.0
Toluene	Ave	2.037	1.863	0.4000	0.0183	0.0200	-8.5	20.0
trans-1,3-Dichloropropene	Ave	0.6395	0.5953	0.1000	0.0186	0.0200	-6.9	20.0
Ethyl methacrylate	Ave	0.6654	0.5680		0.0171	0.0200	-14.6	20.0
1,1,2-Trichloroethane	Ave	0.3954	0.3719	0.1000	0.0188	0.0200	-6.0	20.0
Tetrachloroethene	Ave	0.4536	0.3771	0.1500	0.0166	0.0200	-16.9	20.0
1,3-Dichloropropane	Ave	0.7583	0.7315		0.0193	0.0200	-3.5	20.0
2-Hexanone	Ave	0.3933	0.2951	0.0500	0.0300	0.0400	-25.0*	20.0
Chlorodibromomethane	Lin1		0.3419		0.0180	0.0200	-10.2	20.0
Ethylene Dibromide	Ave	0.3917	0.3684		0.0188	0.0200	-6.0	20.0
Chlorobenzene	Ave	1.276	1.213	0.3000	0.0190	0.0200	-4.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3921	0.3511		0.0179	0.0200	-10.5	20.0
Ethylbenzene	Ave	0.6741	0.6206		0.0184	0.0200	-7.9	20.0
m-Xylene & p-Xylene	Ave	0.8549	0.7767		0.0182	0.0200	-9.1	20.0
o-Xylene	Ave	0.8537	0.7837		0.0184	0.0200	-8.2	20.0
Styrene	Ave	1.478	1.384	0.3000	0.0187	0.0200	-6.4	20.0
Bromoform	Lin1		0.2212	0.1000	0.0188	0.0200	-5.8	20.0
Isopropylbenzene	Ave	2.083	1.756	0.1000	0.0169	0.0200	-15.7	20.0
1,1,2,2-Tetrachloroethane	Ave	1.017	0.9859	0.3000	0.0194	0.0200	-3.0	20.0
Bromobenzene	Ave	0.9145	0.9594		0.0210	0.0200	4.9	20.0
1,2,3-Trichloropropane	Ave	0.3075	0.3221		0.0210	0.0200	4.8	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.2587		0.0232	0.0200	15.9	20.0
N-Propylbenzene	Ave	0.9615	0.8924		0.0186	0.0200	-7.2	20.0
2-Chlorotoluene	Ave	0.8146	0.8295		0.0204	0.0200	1.8	20.0
1,3,5-Trimethylbenzene	Ave	2.885	2.771		0.0192	0.0200	-4.0	20.0
4-Chlorotoluene	Ave	0.8787	0.8651		0.0197	0.0200	-1.5	20.0
tert-Butylbenzene	Ave	2.553	2.259		0.0177	0.0200	-11.5	20.0
1,2,4-Trimethylbenzene	Ave	3.092	2.939		0.0190	0.0200	-4.9	20.0
sec-Butylbenzene	Ave	3.652	3.149		0.0172	0.0200	-13.8	20.0
1,3-Dichlorobenzene	Ave	1.836	1.723	0.6000	0.0188	0.0200	-6.2	20.0
4-Isopropyltoluene	Ave	3.245	2.793		0.0172	0.0200	-13.9	20.0
1,4-Dichlorobenzene	Ave	1.918	1.755	0.5000	0.0183	0.0200	-8.5	20.0
n-Butylbenzene	Ave	2.788	2.256		0.0162	0.0200	-19.1	20.0
1,2-Dichlorobenzene	Ave	1.825	1.613	0.4000	0.0177	0.0200	-11.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCVIS 240-271642/3 Calibration Date: 03/23/2017 08:56

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 19:48

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/04/2017 21:51

Lab File ID: U1256075.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2200	0.1833	0.0500	0.0167	0.0200	-16.7	50.0
1,2,4-Trichlorobenzene	Ave	1.313	0.9475	0.2000	0.0144	0.0200	-27.8	50.0
Hexachlorobutadiene	Ave	0.5020	0.3780		0.0151	0.0200	-24.7*	20.0
Naphthalene	Ave	3.820	2.605		0.0136	0.0200	-31.8	50.0
1,2,3-Trichlorobenzene	Ave	1.217	0.8254		0.0136	0.0200	-32.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.2628	0.2873		0.0181	0.0165	9.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3344	0.3331		0.0165	0.0165	-0.4	20.0
Toluene-d8 (Surr)	Ave	1.597	1.507		0.0156	0.0165	-5.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6327	0.5444		0.0142	0.0165	-14.0	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab File ID: U1256079.D Lab Sample ID: MB 240-271642/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 03/23/2017 10:34

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-271642/4	U1256076.D	03/23/2017 09:20
TB-031317	240-76678-1	U1256081.D	03/23/2017 12:01
MRC-MW78B-031317	240-76678-5	U1256090.D	03/23/2017 16:22
MRC-MW60A-031317	240-76678-3	U1256091.D	03/23/2017 16:47
MRC-MW60B-031317	240-76678-4	U1256092.D	03/23/2017 17:12
MRC-MW60A-031317 MS	240-76678-3 MS	U1256099.D	03/23/2017 20:02
MRC-MW60A-031317 MSD	240-76678-3 MSD	U1256100.D	03/23/2017 20:27

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-271642/7

Matrix: Water | Lab File ID: U1256079.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 10:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-271642/7

Matrix: Water | Lab File ID: U1256079.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 10:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	1.58		1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-124
1868-53-7	Dibromofluoromethane (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	86		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		63-132

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-031317	240-76678-1	107	104	94	85
MRC-MW60A-031317	240-76678-3	110	101	93	85
MRC-MW60B-031317	240-76678-4	106	103	93	84
MRC-MW78B-031317	240-76678-5	111	101	95	89
	MB 240-271642/7	107	100	91	86
	LCS 240-271642/4	111	100	95	88
MRC-MW60A-031317 MS	240-76678-3 MS	110	110	96	86
MRC-MW60A-031317 MSD	240-76678-3 MSD	110	109	94	88

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256076.D

Lab ID: LCS 240-271642/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	19.8	99	79-133	
1,1,2,2-Tetrachloroethane	20.0	18.6	93	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	16.0	80	65-151	
1,1,2-Trichloroethane	20.0	18.5	93	80-120	
1,1-Dichloroethane	20.0	21.8	109	77-121	
1,1-Dichloroethene	20.0	21.2	106	70-141	
1,2,4-Trichlorobenzene	20.0	13.7	68	53-137	
1,2-Dibromo-3-Chloropropane	20.0	16.8	84	46-140	
Ethylene Dibromide	20.0	18.3	91	80-126	
1,2-Dichlorobenzene	20.0	17.6	88	80-120	
1,2-Dichloroethane	20.0	21.7	108	76-130	
1,2-Dichloropropane	20.0	22.8	114	79-121	
1,3-Dichlorobenzene	20.0	17.8	89	80-120	
1,4-Dichlorobenzene	20.0	17.8	89	80-120	
2-Butanone (MEK)	40.0	29.8	75	54-122	
2-Hexanone	40.0	27.0	67	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	34.4	86	60-131	
Acetone	40.0	28.6	72	46-120	
Benzene	20.0	22.1	110	80-120	
Dichlorobromomethane	20.0	22.6	113	76-125	
Bromoform	20.0	18.1	91	52-157	
Bromomethane	20.0	18.5	93	24-160	
Carbon disulfide	20.0	19.2	96	58-160	
Carbon tetrachloride	20.0	18.0	90	69-149	
Chlorobenzene	20.0	18.7	93	80-120	
Chloroethane	20.0	21.1	105	24-147	
Chloroform	20.0	22.6	113	80-120	
Chloromethane	20.0	20.6	103	50-135	
cis-1,2-Dichloroethene	20.0	22.4	112	80-120	
cis-1,3-Dichloropropene	20.0	20.9	105	75-120	
Cyclohexane	20.0	15.3	77	66-135	
Chlorodibromomethane	20.0	17.8	89	68-131	
Dichlorodifluoromethane	20.0	15.5	77	32-140	
Ethylbenzene	20.0	18.5	92	80-120	
Isopropylbenzene	20.0	17.2	86	80-120	
Methyl acetate	100	93.1	93	65-124	
Methyl tert-butyl ether	20.0	17.8	89	75-126	
Methylcyclohexane	20.0	14.0	70	71-122	*
Methylene Chloride	20.0	21.3	107	68-136	
Styrene	20.0	18.4	92	80-120	
Tetrachloroethene	20.0	17.6	88	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256076.D

Lab ID: LCS 240-271642/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	18.1	91	80-121	
trans-1,2-Dichloroethene	20.0	22.9	114	80-123	
trans-1,3-Dichloropropene	20.0	17.6	88	65-120	
Trichloroethene	20.0	21.7	108	80-122	
Trichlorofluoromethane	20.0	20.4	102	56-161	
Vinyl chloride	20.0	21.4	107	60-129	
Xylenes, Total	40.0	36.1	90	80-120	
m-Xylene & p-Xylene	20.0	18.2	91	80-120	
o-Xylene	20.0	17.9	90	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256099.D

Lab ID: 240-76678-3 MS Client ID: MRC-MW60A-031317 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	1000	12 U	923	92	55-150	
1,1,2,2-Tetrachloroethane	1000	16 U	834	83	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	21 U	920	92	41-149	
1,1,2-Trichloroethane	1000	17 U	924	92	65-130	
1,1-Dichloroethane	1000	13 U	1070	107	57-135	
1,1-Dichloroethene	1000	14 U	1110	111	50-156	
1,2,4-Trichlorobenzene	1000	14 U	627	63	35-140	
1,2-Dibromo-3-Chloropropane	1000	24 U	691	69	37-139	
Ethylene Dibromide	1000	12 U	878	88	64-137	
1,2-Dichlorobenzene	1000	13 U	819	82	62-123	
1,2-Dichloroethane	1000	15 U	1050	105	62-137	
1,2-Dichloropropane	1000	15 U	1120	112	66-130	
1,3-Dichlorobenzene	1000	16 U	845	85	59-122	
1,4-Dichlorobenzene	1000	12 U	851	85	60-122	
2-Butanone (MEK)	2000	51 U	1390	70	38-123	
2-Hexanone	2000	62 U	1200	60	41-135	
4-Methyl-2-pentanone (MIBK)	2000	36 U	1470	73	43-143	
Acetone	2000	88 U	1300	65	28-120	
Benzene	1000	14 U	1100	110	67-126	
Dichlorobromomethane	1000	15 U	1100	110	64-127	
Bromoform	1000	22 U	841	84	40-149	
Bromomethane	1000	21 U	914	91	10-169	
Carbon disulfide	1000	17 U	947	95	43-172	
Carbon tetrachloride	1000	18 U	861	86	51-154	
Chlorobenzene	1000	16 U	923	92	58-128	
Chloroethane	1000	21 U	1080	108	10-162	
Chloroform	1000	16 U	1130	113	67-133	
Chloromethane	1000	22 U	1040	104	30-143	
cis-1,2-Dichloroethene	1000	520	1630	110	64-134	
cis-1,3-Dichloropropene	1000	13 U	1010	101	58-120	
Cyclohexane	1000	22 U	911	91	36-144	
Chlorodibromomethane	1000	13 U	836	84	56-132	
Dichlorodifluoromethane	1000	25 U	807	81	16-140	
Ethylbenzene	1000	13 U	913	91	66-123	
Isopropylbenzene	1000	11 U	850	85	57-132	
Methyl acetate	5000	72 U	4410	88	46-135	
Methyl tert-butyl ether	1000	14 U	793	79	50-137	
Methylcyclohexane	1000	23 U	815	81	31-139	
Methylene Chloride	1000	72	1090	102	48-138	
Styrene	1000	12 U	921	92	62-131	
Tetrachloroethene	1000	15 U	890	89	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256099.D

Lab ID: 240-76678-3 MS Client ID: MRC-MW60A-031317 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	1000	12 U	904	90	63-130	
trans-1,2-Dichloroethene	1000	15 U	1120	112	70-137	
trans-1,3-Dichloropropene	1000	16 U	826	83	48-120	
Trichloroethene	1000	1300	2370	104	58-139	
Trichlorofluoromethane	1000	25 U	1020	102	26-175	
Vinyl chloride	1000	69	1160	109	38-147	
Xylenes, Total	2000	12 U	1790	90	60-126	
m-Xylene & p-Xylene	1000	12 U	893	89	58-127	
o-Xylene	1000	14 U	900	90	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256100.D

Lab ID: 240-76678-3 MSD Client ID: MRC-MW60A-031317 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	1000	966	97	5	35	55-150	
1,1,2,2-Tetrachloroethane	1000	925	92	10	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	977	98	6	35	41-149	
1,1,2-Trichloroethane	1000	939	94	2	35	65-130	
1,1-Dichloroethane	1000	1080	108	1	35	57-135	
1,1-Dichloroethene	1000	1140	114	3	35	50-156	
1,2,4-Trichlorobenzene	1000	669	67	6	35	35-140	
1,2-Dibromo-3-Chloropropane	1000	779	78	12	35	37-139	
Ethylene Dibromide	1000	908	91	3	35	64-137	
1,2-Dichlorobenzene	1000	856	86	4	35	62-123	
1,2-Dichloroethane	1000	1090	109	3	35	62-137	
1,2-Dichloropropane	1000	1140	114	1	35	66-130	
1,3-Dichlorobenzene	1000	866	87	2	35	59-122	
1,4-Dichlorobenzene	1000	885	89	4	35	60-122	
2-Butanone (MEK)	2000	1410	70	1	35	38-123	
2-Hexanone	2000	1240	62	3	35	41-135	
4-Methyl-2-pentanone (MIBK)	2000	1590	79	8	35	43-143	
Acetone	2000	1310	65	1	35	28-120	
Benzene	1000	1110	111	1	31	67-126	
Dichlorobromomethane	1000	1130	113	3	35	64-127	
Bromoform	1000	870	87	3	35	40-149	
Bromomethane	1000	929	93	2	35	10-169	
Carbon disulfide	1000	1000	100	5	35	43-172	
Carbon tetrachloride	1000	889	89	3	35	51-154	
Chlorobenzene	1000	916	92	1	35	58-128	
Chloroethane	1000	1080	108	0	35	10-162	
Chloroform	1000	1160	116	3	35	67-133	
Chloromethane	1000	1050	105	1	35	30-143	
cis-1,2-Dichloroethene	1000	1630	111	0	35	64-134	
cis-1,3-Dichloropropene	1000	1030	103	1	35	58-120	
Cyclohexane	1000	953	95	5	35	36-144	
Chlorodibromomethane	1000	865	87	3	35	56-132	
Dichlorodifluoromethane	1000	881	88	9	35	16-140	
Ethylbenzene	1000	912	91	0	34	66-123	
Isopropylbenzene	1000	852	85	0	35	57-132	
Methyl acetate	5000	4600	92	4	34	46-135	
Methyl tert-butyl ether	1000	831	83	5	35	50-137	
Methylcyclohexane	1000	837	84	3	35	31-139	
Methylene Chloride	1000	1110	104	2	35	48-138	
Styrene	1000	920	92	0	35	62-131	
Tetrachloroethene	1000	909	91	2	35	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256100.D

Lab ID: 240-76678-3 MSD Client ID: MRC-MW60A-031317 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	1000	904	90	0	33	63-130	
trans-1,2-Dichloroethene	1000	1180	118	5	25	70-137	
trans-1,3-Dichloropropene	1000	857	86	4	35	48-120	
Trichloroethene	1000	2350	102	1	35	58-139	
Trichlorofluoromethane	1000	1070	107	6	35	26-175	
Vinyl chloride	1000	1160	109	0	35	38-147	
Xylenes, Total	2000	1810	91	1	35	60-126	
m-Xylene & p-Xylene	1000	916	92	3	35	58-127	
o-Xylene	1000	895	89	1	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Sample No.: ICIS 240-261782/9 Date Analyzed: 01/04/2017 21:02

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1254933.D Heated Purge: (Y/N) N

Calibration ID: 37743

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		946888	5.16	714452	7.81	430036	10.03
UPPER LIMIT		1893776	5.66	1428904	8.31	860072	10.53
LOWER LIMIT		473444	4.66	357226	7.31	215018	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-261782/18		921147	5.16	700893	7.81	441216	10.03
ICV 240-261782/19		925584	5.16	701417	7.81	412260	10.03
CCVIS 240-271642/3		955587	5.16	820796	7.82	427223	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Sample No.: CCVIS 240-271642/3 Date Analyzed: 03/23/2017 08:56

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1256075.D Heated Purge: (Y/N) N

Calibration ID: 37746

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		955587	5.16	820796	7.82	427223	10.03
UPPER LIMIT		1911174	5.66	1641592	8.32	854446	10.53
LOWER LIMIT		477794	4.66	410398	7.32	213612	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-271642/4		953669	5.16	807449	7.82	435759	10.03
CCV 240-271642/5		938469	5.16	801639	7.82	414208	10.03
MB 240-271642/7		907829	5.16	801843	7.82	403721	10.03
240-76678-1	TB-031317	921449	5.16	778280	7.82	403635	10.03
240-76678-5	MRC-MW78B-031317	925371	5.16	795927	7.82	413868	10.03
240-76678-3	MRC-MW60A-031317	927787	5.16	806792	7.82	399901	10.03
240-76678-4	MRC-MW60B-031317	916731	5.16	788249	7.82	402355	10.03
240-76678-3 MS	MRC-MW60A-031317 MS	951555	5.16	805122	7.82	449994	10.03
240-76678-3 MSD	MRC-MW60A-031317 MSD	946776	5.16	812657	7.82	438102	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: A3UX12 Start Date: 01/04/2017 18:06

Analysis Batch Number: 261782 End Date: 01/05/2017 03:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-261782/1		01/04/2017 18:06	1	BFB3443.D	DB-624 0.18(mm)
STD8260 240-261782/6 IC		01/04/2017 19:48	1	U1254930.D	DB-624 0.18(mm)
STD8260 240-261782/7 IC		01/04/2017 20:13	1	U1254931.D	DB-624 0.18(mm)
STD8260 240-261782/8 IC		01/04/2017 20:37	1	U1254932.D	DB-624 0.18(mm)
ICIS 240-261782/9		01/04/2017 21:02	1	U1254933.D	DB-624 0.18(mm)
STD8260 240-261782/10 IC		01/04/2017 21:26	1	U1254934.D	DB-624 0.18(mm)
STD8260 240-261782/11 IC		01/04/2017 21:51	1	U1254935.D	DB-624 0.18(mm)
STDA9 240-261782/12 IC		01/04/2017 22:39	1		DB-624 0.18(mm)
STDA9 240-261782/13 IC		01/04/2017 23:04	1		DB-624 0.18(mm)
STDA9 240-261782/14 IC		01/04/2017 23:28	1		DB-624 0.18(mm)
STDA9 240-261782/15 IC		01/04/2017 23:53	1		DB-624 0.18(mm)
STDA9 240-261782/16 IC		01/05/2017 00:18	1		DB-624 0.18(mm)
STDA9 240-261782/17 IC		01/05/2017 00:42	1		DB-624 0.18(mm)
ICV 240-261782/18		01/05/2017 01:07	1	U1254943.D	DB-624 0.18(mm)
ICV 240-261782/19		01/05/2017 01:31	1	U1254944.D	DB-624 0.18(mm)
MDLV 240-261782/20		01/05/2017 01:55	1		DB-624 0.18(mm)
MDLV 240-261782/21		01/05/2017 02:20	1		DB-624 0.18(mm)
MDLV 240-261782/22		01/05/2017 02:45	1		DB-624 0.18(mm)
ZZZZZ		01/05/2017 03:09	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: A3UX12 Start Date: 03/23/2017 08:29

Analysis Batch Number: 271642 End Date: 03/23/2017 20:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-271642/1		03/23/2017 08:29	1	BFB3504.D	DB-624 0.18(mm)
CCVIS 240-271642/3		03/23/2017 08:56	1	U1256075.D	DB-624 0.18(mm)
LCS 240-271642/4		03/23/2017 09:20	1	U1256076.D	DB-624 0.18(mm)
CCV 240-271642/5		03/23/2017 09:45	1	U1256077.D	DB-624 0.18(mm)
MDLV 240-271642/6		03/23/2017 10:09	1		DB-624 0.18(mm)
MB 240-271642/7		03/23/2017 10:34	1	U1256079.D	DB-624 0.18(mm)
MDLV 240-271642/8		03/23/2017 11:23	1		DB-624 0.18(mm)
240-76678-1		03/23/2017 12:01	1	U1256081.D	DB-624 0.18(mm)
240-76678-5		03/23/2017 16:22	1	U1256090.D	DB-624 0.18(mm)
240-76678-3		03/23/2017 16:47	50	U1256091.D	DB-624 0.18(mm)
240-76678-4		03/23/2017 17:12	200	U1256092.D	DB-624 0.18(mm)
ZZZZZ		03/23/2017 17:36	1		DB-624 0.18(mm)
ZZZZZ		03/23/2017 18:01	1		DB-624 0.18(mm)
ZZZZZ		03/23/2017 18:24	2		DB-624 0.18(mm)
ZZZZZ		03/23/2017 18:49	1		DB-624 0.18(mm)
ZZZZZ		03/23/2017 19:13	1		DB-624 0.18(mm)
ZZZZZ		03/23/2017 19:37	1		DB-624 0.18(mm)
240-76678-3 MS		03/23/2017 20:02	50	U1256099.D	DB-624 0.18(mm)
240-76678-3 MSD		03/23/2017 20:27	50	U1256100.D	DB-624 0.18(mm)

Method 522

1,4 Dioxane (GC/MS SIM) by Method 522

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Lab File ID: Z24230_01.D BFB Injection Date: 03/08/2017

Instrument ID: CHZ.i BFB Injection Time: 10:08

Analysis Batch No.: 114713

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 80.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.3	
175	5.0 - 9.0 % of mass 174	4.9	(7.2) 1
176	>95.0 but <101.0 % of mass 174	66.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-114713/2	Z24230_02.D	03/08/2017	10:20
	IC 200-114713/3	Z24230_03.D	03/08/2017	10:37
	IC 200-114713/4	Z24230_04.D	03/08/2017	10:54
	ICIS 200-114713/5	Z24230_05.D	03/08/2017	11:12
	IC 200-114713/6	Z24230_06.D	03/08/2017	11:29
	IC 200-114713/7	Z24230_07.D	03/08/2017	11:46
	IC 200-114713/8	Z24230_08.D	03/08/2017	12:03
	ICV 200-114713/9	Z24230_09.D	03/08/2017	12:21

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Lab File ID: Z24401_03.D BFB Injection Date: 03/22/2017

Instrument ID: CHZ.i BFB Injection Time: 15:37

Analysis Batch No.: 115085

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 80.0 % of mass 95	45.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	80.7	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	>95.0 but <101.0 % of mass 174	77.4	(95.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVL 200-115085/4	Z24401_04.D	03/22/2017	15:48
	LCSD 200-115022/3-A	Z24401_06.D	03/22/2017	16:23
	MB 200-115022/1-A	Z24401_07.D	03/22/2017	16:40
MRC-MW81A-031317	240-76678-2	Z24401_08.D	03/22/2017	16:57
MRC-MW60A-031317	240-76678-3	Z24401_09.D	03/22/2017	17:14
MRC-MW60B-031317	240-76678-4	Z24401_10.D	03/22/2017	17:31
	CCV 200-115085/17	Z24401_17.D	03/22/2017	19:29
	CCV 200-115085/31	Z24401_31.D	03/22/2017	23:26
	LCS 200-115022/2-A	Z24401_35.D	03/23/2017	00:33
	CCV 200-115085/37	Z24401_37.D	03/23/2017	01:06

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-76678-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICV 200-114713/9 Calibration Date: 03/08/2017 12:21

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_09.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5752	0.0500	184	200	-7.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCVL 200-115085/4 Calibration Date: 03/22/2017 15:48

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_04.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7735	0.0500	12.4	10.0	23.9	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6057	0.0500	502	500	0.3	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCV 200-115085/17 Calibration Date: 03/22/2017 19:29

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_17.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6844	0.0500	110	100	9.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6853	0.0500	568	500	13.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCV 200-115085/31 Calibration Date: 03/22/2017 23:26

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_31.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6764	0.0500	866	800	8.3	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6760	0.0500	560	500	12.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCV 200-115085/37 Calibration Date: 03/23/2017 01:06

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_37.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6844	0.0500	110	100	9.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6970	0.0500	577	500	15.5	30.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Lab File ID: Z24401_07.D Lab Sample ID: MB 200-115022/1-A

Matrix: Water Date Extracted: 03/20/2017 21:30

Instrument ID: CHZ.i Date Analyzed: 03/22/2017 16:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCSD 200-115022/3-A	Z24401_06.D	03/22/2017 16:23
MRC-MW81A-031317	240-76678-2	Z24401_08.D	03/22/2017 16:57
MRC-MW60A-031317	240-76678-3	Z24401_09.D	03/22/2017 17:14
MRC-MW60B-031317	240-76678-4	Z24401_10.D	03/22/2017 17:31
	LCS 200-115022/2-A	Z24401_35.D	03/23/2017 00:33

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76678-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-115022/1-A

Matrix: Water | Lab File ID: Z24401_07.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 16:40

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	115		46-130

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW81A-031317	240-76678-2	90
MRC-MW60A-031317	240-76678-3	98
MRC-MW60B-031317	240-76678-4	100
	MB 200-115022/1-A	115
	LCS 200-115022/2-A	103
	LCSD 200-115022/3-A	104

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24401_35.D

Lab ID: LCS 200-115022/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	8.00	8.01	100	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24401_06.D

Lab ID: LCSD 200-115022/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	8.00	8.26	103	3	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Sample No.: ICIS 200-114713/5 Date Analyzed: 03/08/2017 11:12

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24230_05.D Heated Purge: (Y/N) N

Calibration ID: 36785

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224595	3.32				
UPPER LIMIT		336893	3.82				
LOWER LIMIT		112298	2.82				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-114713/9		202920	3.32				
CCVL 200-115085/4		270907	3.25				
LCSD 200-115022/3-A		279648	3.23				
MB 200-115022/1-A		214689	3.23				
240-76678-2	MRC-MW81A-031317	280351	3.25				
240-76678-3	MRC-MW60A-031317	263624	3.24				
240-76678-4	MRC-MW60B-031317	272193	3.25				
CCV 200-115085/17		266198	3.26				
CCV 200-115085/31		258214	3.23				
LCS 200-115022/2-A		247541	3.23				
CCV 200-115085/37		257376	3.23				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-114713/1		03/08/2017 10:08	1	Z24230_01.D	Rxi-5ms 0.25(mm)
IC 200-114713/2		03/08/2017 10:20	1	Z24230_02.D	Rxi-5ms 0.25(mm)
IC 200-114713/3		03/08/2017 10:37	1	Z24230_03.D	Rxi-5ms 0.25(mm)
IC 200-114713/4		03/08/2017 10:54	1	Z24230_04.D	Rxi-5ms 0.25(mm)
ICIS 200-114713/5		03/08/2017 11:12	1	Z24230_05.D	Rxi-5ms 0.25(mm)
IC 200-114713/6		03/08/2017 11:29	1	Z24230_06.D	Rxi-5ms 0.25(mm)
IC 200-114713/7		03/08/2017 11:46	1	Z24230_07.D	Rxi-5ms 0.25(mm)
IC 200-114713/8		03/08/2017 12:03	1	Z24230_08.D	Rxi-5ms 0.25(mm)
ICV 200-114713/9		03/08/2017 12:21	1	Z24230_09.D	Rxi-5ms 0.25(mm)
CCVL 200-114713/10		03/08/2017 13:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 13:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:43	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:02	1		Rxi-5ms 0.25(mm)
CCV 200-114713/23		03/08/2017 17:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:07	1		Rxi-5ms 0.25(mm)
CCV 200-114713/37		03/08/2017 21:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:42	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/09/2017 00:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:17	1		Rxi-5ms 0.25(mm)
CCV 200-114713/48		03/09/2017 00:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:51	1		Rxi-5ms 0.25(mm)
CCV 200-114713/50		03/09/2017 01:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:34	1		Rxi-5ms 0.25(mm)
CCV 200-114713/54		03/09/2017 09:50	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/22/2017 15:37

Analysis Batch Number: 115085 End Date: 03/23/2017 09:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-115085/3		03/22/2017 15:37	1	Z24401_03.D	Rxi-5ms 0.25(mm)
CCVL 200-115085/4		03/22/2017 15:48	1	Z24401_04.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:06	1		Rxi-5ms 0.25(mm)
LCSD 200-115022/3-A		03/22/2017 16:23	1	Z24401_06.D	Rxi-5ms 0.25(mm)
MB 200-115022/1-A		03/22/2017 16:40	1	Z24401_07.D	Rxi-5ms 0.25(mm)
240-76678-2		03/22/2017 16:57	1	Z24401_08.D	Rxi-5ms 0.25(mm)
240-76678-3		03/22/2017 17:14	1	Z24401_09.D	Rxi-5ms 0.25(mm)
240-76678-4		03/22/2017 17:31	1	Z24401_10.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:12	1		Rxi-5ms 0.25(mm)
CCV 200-115085/17		03/22/2017 19:29	1	Z24401_17.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:09	1		Rxi-5ms 0.25(mm)
CCV 200-115085/31		03/22/2017 23:26	1	Z24401_31.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:16	1		Rxi-5ms 0.25(mm)
LCS 200-115022/2-A		03/23/2017 00:33	1	Z24401_35.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:50	1		Rxi-5ms 0.25(mm)
CCV 200-115085/37		03/23/2017 01:06	1	Z24401_37.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 08:57	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 09:13	2		Rxi-5ms 0.25(mm)
CCV 200-115085/40		03/23/2017 09:30	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-76678-1

SDG No.:

Batch Number: 115022 Batch Start Date: 03/20/17 21:30 Batch Analyst: Keith, Robert C

Batch Method: 3535A Batch End Date: 03/20/17 22:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00025		
MB 200-115022/1		3535A, 522		100 mL	2000 uL		100 uL		
LCS 200-115022/2		3535A, 522		100 mL	2000 uL	400 uL	100 uL		
LCSD 200-115022/3		3535A, 522		100 mL	2000 uL	400 uL	100 uL		
240-76678-A-2	MRC-MW81A-031317	3535A, 522	T	100 mL	2000 uL		100 uL		
240-76678-D-3	MRC-MW60A-031317	3535A, 522	T	100 mL	2000 uL		100 uL		
240-76678-J-4	MRC-MW60B-031317	3535A, 522	T	100 mL	2000 uL		100 uL		

Batch Notes	
Acid ID	1004720
Acid Name	HCl
First End time	2215
Analyst ID - Reagent Drop Witness	BDL
Solvent Lot #	1023323
Solvent Name	MeCl2
SPE Cartridge ID	8088705
First Start time	2130

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method RSK-175

Dissolved Gases (GC) by Method RSK_175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Sample No.: STD3 240-251578/5 Date Analyzed: 10/15/2016 15:31

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0101505.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
INITIAL CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-251578/5 ICRT		10/15/2016 15:31	RSK0101505.D	3.34		
ICV 240-251578/9		10/15/2016 16:39	RSK0101509.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Sample No.: CCVRT 240-270845/3 Date Analyzed: 03/16/2017 15:25

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0316003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.33		
UPPER LIMIT				3.38		
LOWER LIMIT				3.28		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-270845/3		03/16/2017 15:25	RSK0316003.D	3.33		
MB 240-270845/4		03/16/2017 15:42	RSK0316004.D	3.33		
LCS 240-270845/5		03/16/2017 15:58	RSK0316005.D	3.33		
CCV 240-270845/14		03/16/2017 18:32	RSK0316014.D	3.33		
240-76678-4	MRC-MW60B-031317	03/16/2017 19:23	RSK0316017.D	3.33		
CCV 240-270845/18		03/16/2017 19:40	RSK0316018.D	3.33		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76678-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Methane	17282 15031	14572 14891	15021	15273	Ave		15344.8970				6.4		30.0			
Ethene	13272 13787	13164 13601	13786	13941	Ave		13591.7814				2.3		30.0			
Acetylene	6429.5 6415.6	5892.3 6088.3	6401.9	6607.6	Ave		6305.86557				4.2		30.0			
Ethane	13684 14544	13730 14408	14353	14588	Ave		14217.7545				2.9		30.0			
Propane	13814 15013	13864 14908	14731	14670	Ave		14499.9021				3.6		30.0			
1,1,1-Trifluoroethane	7519.7 7756.9	8027.5	7602.5	8141.8	Ave		7809.65873				3.4		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICV 240-251578/9 Calibration Date: 10/15/2016 16:39

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0101509.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	12457		161	199	-18.8	30.0
Ethene	Ave	13592	11508		296	349	-15.3	30.0
Acetylene	Ave	6306	5081		260	323	-19.4	30.0
Ethane	Ave	14218	12173		320	374	-14.4	30.0
Propane	Ave	14500	12390		467	546	-14.6	30.0
1,1,1-Trifluoroethane	Ave	7810	6762		2640	3050	-13.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICV 240-251578/9 Calibration Date: 10/15/2016 16:39

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0101509.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.20	1.99	2.39
Propane	4.54	4.47	4.57
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCVRT 240-270845/3 Calibration Date: 03/16/2017 15:25

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0316003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14985		194	199	-2.3	30.0
Ethene	Ave	13592	12913		332	349	-5.0	30.0
Acetylene	Ave	6306	5267		270	323	-16.5	30.0
Ethane	Ave	14218	13588		357	374	-4.4	30.0
Propane	Ave	14500	13030		492	548	-10.1	30.0
1,1,1-Trifluoroethane	Ave	7810	6257		2450	3050	-19.9	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCVRT 240-270845/3 Calibration Date: 03/16/2017 15:25

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0316003.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.87	1.82	1.92
Acetylene	1.98	1.93	2.03
Ethane	2.19	1.99	2.39
Propane	4.53	4.48	4.58
1,1,1-Trifluoroethane	3.33	3.23	3.43

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCV 240-270845/14 Calibration Date: 03/16/2017 18:32

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0316014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14646		190	199	-4.6	30.0
Ethene	Ave	13592	12146		312	349	-10.6	30.0
Acetylene	Ave	6306	5010		257	323	-20.5	30.0
Ethane	Ave	14218	13149		346	374	-7.5	30.0
Propane	Ave	14500	12620		477	548	-13.0	30.0
1,1,1-Trifluoroethane	Ave	7810	5913		2310	3050	-24.3	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCV 240-270845/14 Calibration Date: 03/16/2017 18:32

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0316014.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.87	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.19	1.99	2.39
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.33	3.23	3.43

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCV 240-270845/18 Calibration Date: 03/16/2017 19:40

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0316018.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14972		194	199	-2.4	30.0
Ethene	Ave	13592	12313		316	349	-9.4	30.0
Acetylene	Ave	6306	5109		262	323	-19.0	30.0
Ethane	Ave	14218	13291		350	374	-6.5	30.0
Propane	Ave	14500	12521		473	548	-13.6	30.0
1,1,1-Trifluoroethane	Ave	7810	5972		2330	3050	-23.5	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: CCV 240-270845/18 Calibration Date: 03/16/2017 19:40

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0316018.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.87	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.19	1.99	2.39
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.33	3.23	3.43

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: MB 240-270845/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0316004.D Lab File ID:(2)

Date Analyzed:(1) 03/16/2017 15:42 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-270845/5	03/16/2017 15:58	
MRC-MW60B-031317	240-76678-4	03/16/2017 19:23	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-270845/4

Matrix: Water Lab File ID: RSK0316004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 33(mL) Date Analyzed: 03/16/2017 15:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 270845 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.080	U	0.50	0.080
74-84-0	Ethane	0.14	U	0.50	0.14
74-85-1	Ethene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	82		76-121

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-PLOT/Q ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TFE1 #
MRC-MW60B-031317	240-76678-4	76
	MB 240-270845/4	82
	LCS 240-270845/5	82

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	76-121

Column to be used to flag recovery values

FORM II RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0316005.D

Lab ID: LCS 240-270845/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	199	197	99	80-130	
Ethane	374	365	98	76-131	
Ethene	349	340	97	79-132	

Column to be used to flag recovery and RPD values

FORM III RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: ZPID Start Date: 10/15/2016 14:57

Analysis Batch Number: 251578 End Date: 10/15/2016 16:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-251578/3 IC		10/15/2016 14:57	1	RSK0101503.D	HP-PLOT/Q 0.53(mm)
STD2 240-251578/4 IC		10/15/2016 15:14	1	RSK0101504.D	HP-PLOT/Q 0.53(mm)
STD3 240-251578/5 ICRT		10/15/2016 15:31	1	RSK0101505.D	HP-PLOT/Q 0.53(mm)
STD4 240-251578/6 IC		10/15/2016 15:48	1	RSK0101506.D	HP-PLOT/Q 0.53(mm)
STD5 240-251578/7 IC		10/15/2016 16:05	1	RSK0101507.D	HP-PLOT/Q 0.53(mm)
STD6 240-251578/8 IC		10/15/2016 16:22	1	RSK0101508.D	HP-PLOT/Q 0.53(mm)
ICV 240-251578/9		10/15/2016 16:39	1	RSK0101509.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: ZPID Start Date: 03/16/2017 15:25

Analysis Batch Number: 270845 End Date: 03/16/2017 19:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-270845/3		03/16/2017 15:25	1	RSK0316003.D	HP-PLOT/Q 0.53(mm)
MB 240-270845/4		03/16/2017 15:42	1	RSK0316004.D	HP-PLOT/Q 0.53(mm)
LCS 240-270845/5		03/16/2017 15:58	1	RSK0316005.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		03/16/2017 16:15	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		03/16/2017 16:32	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		03/16/2017 16:49	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		03/16/2017 17:06	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		03/16/2017 17:23	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		03/16/2017 17:40	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		03/16/2017 17:57	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		03/16/2017 18:15	1		HP-PLOT/Q 0.53(mm)
CCV 240-270845/14		03/16/2017 18:32	1	RSK0316014.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		03/16/2017 18:49	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		03/16/2017 19:06	1		HP-PLOT/Q 0.53(mm)
240-76678-4		03/16/2017 19:23	1	RSK0316017.D	HP-PLOT/Q 0.53(mm)
CCV 240-270845/18		03/16/2017 19:40	1	RSK0316018.D	HP-PLOT/Q 0.53(mm)

METALS

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00092

Analyte	ICV 240-270927/4 03/16/2017 08:34				CCV 240-270927/18 03/16/2017 09:37				CCV 240-270927/30 03/16/2017 10:51			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	25000		25000	100	50500		50000	101	49200		50000	98
Magnesium	25900		25000	104	50100		50000	100	48900		50000	98
Potassium	25200		25000	101	50300		50000	101	50200		50000	100
Sodium	25200		25000	101	49900		50000	100	49400		50000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00092

Analyte	CCV 240-270927/93 03/16/2017 15:32				CCV 240-270927/105 03/16/2017 16:30							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	51100		50000	102	51200		50000	102				
Magnesium	50600		50000	101	50700		50000	101				
Potassium	52300		50000	105	51600		50000	103				
Sodium	46900		50000	94	50100		50000	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICV Source: MTTRCRIC_00045 Concentration Units: ug/L

CCV Source: MTTRCRIC_00045

Analyte	ICVL 240-270927/6 03/16/2017 08:43				CCVL 240-270927/134 03/16/2017 18:39							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5010		5000	100	5010		5000	100				
Magnesium	5120		5000	102	5030		5000	101				
Potassium	4980	J	5000	100	5280		5000	106				
Sodium	4970	J	5000	99	5170		5000	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00092

Analyte	ICV 240-270966/4 03/16/2017 14:09				CCV 240-270966/43 03/16/2017 17:08				CCV 240-270966/55 03/16/2017 17:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24200		25000	97	49600		50000	99	50100		50000	100
Magnesium	25600		25000	102	50200		50000	100	50500		50000	101
Potassium	24600		25000	99	50000		50000	100	50200		50000	100
SiO2, Silica	6660		6420	104	11500		10700	107	11500		10700	108
Sodium	24900		25000	100	49900		50000	100	50600		50000	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICV Source: MTTRCRIC_00045 Concentration Units: ug/L

CCV Source: MTTRCRIC_00045

Analyte	ICVL 240-270966/6 03/16/2017 14:17				CCVL 240-270966/82 03/16/2017 19:53							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	4950	J	5000	99	4850	J	5000	97				
Magnesium	5260		5000	105	5260		5000	105				
Potassium	4900	J	5000	98	4950	J	5000	99				
SiO2, Silica	956	J	1070	89	950	J	1070	89				
Sodium	4960	J	5000	99	5010		5000	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00093

Analyte	ICV 240-271122/4 03/17/2017 10:39				CCV 240-271122/18 03/17/2017 11:38				CCV 240-271122/30 03/17/2017 12:33			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
SiO2, Silica	6710		6420	104	11700		10700	109	11700		10700	110
Calcium	24100		25000	96	49500		50000	99	49400		50000	99
Magnesium	25400		25000	102	50400		50000	101	50300		50000	101
Potassium	24600		25000	98	49200		50000	98	49500		50000	99
Sodium	24800		25000	99	49500		50000	99	49600		50000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00093

Analyte	CCV 240-271122/34 03/17/2017 12:49				CCV 240-271122/44 03/17/2017 13:31				CCV 240-271122/47 03/17/2017 13:43			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
SiO2, Silica	11600		10700	109	11600		10700	108	11500		10700	107
Calcium	49600		50000	99	49400		50000	99	49300		50000	99
Magnesium	49900		50000	100	49600		50000	99	49500		50000	99
Potassium	49000		50000	98	48600		50000	97	48600		50000	97
Sodium	49300		50000	99	48800		50000	98	48800		50000	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICV Source: MTTRCRIC_00045 Concentration Units: ug/L

CCV Source: MTTRCRIC_00045

Analyte	ICVL 240-271122/6 03/17/2017 10:47				CCVL 240-271122/68 03/17/2017 15:14							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
SiO2, Silica	1080	J	1070	101	1070	J	1070	100				
Calcium	4980	J	5000	100	4880	J	5000	98				
Magnesium	5310		5000	106	5270		5000	105				
Potassium	4940	J	5000	99	4780	J	5000	96				
Sodium	5020		5000	100	4910	J	5000	98				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00189

Analyte	ICV 240-270964/7 03/16/2017 10:31				CCV 240-270964/70 03/16/2017 15:06				CCV 240-270964/82 03/16/2017 15:56			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.0		40.0	103	51.3		50.0	103	54.6		50.0	109
Arsenic	40.4		40.0	101	52.5		50.0	105	50.5		50.0	101
Barium	39.9		40.0	100	49.8		50.0	100	51.8		50.0	104
Beryllium	39.8		40.0	99	51.8		50.0	104	48.6		50.0	97
Cadmium	41.0		40.0	102	50.1		50.0	100	50.9		50.0	102
Chromium	40.7		40.0	102	50.0		50.0	100	50.7		50.0	101
Cobalt	41.0		40.0	102	51.2		50.0	102	52.4		50.0	105
Copper	41.6		40.0	104	50.4		50.0	101	52.5		50.0	105
Iron	10300		10000	103	12300		12500	99	12900		12500	104
Lead	40.7		40.0	102	49.1		50.0	98	49.6		50.0	99
Manganese	204		200	102	244		250	98	255		250	102
Molybdenum	39.8		40.0	99	50.9		50.0	102	51.2		50.0	102
Nickel	41.6		40.0	104	50.4		50.0	101	52.3		50.0	105
Selenium	41.2		40.0	103	51.0		50.0	102	51.8		50.0	104
Silver	40.5		40.0	101	50.2		50.0	100	50.0		50.0	100
Thallium	39.7		40.0	99	48.3		50.0	97	48.5		50.0	97
Vanadium	41.1		40.0	103	50.5		50.0	101	51.7		50.0	103
Zinc	41.7		40.0	104	49.6		50.0	99	52.4		50.0	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00189

Analyte	CCV 240-270964/94 03/16/2017 16:46											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.5		50.0	101								
Arsenic	48.0		50.0	96								
Barium	51.2		50.0	102								
Beryllium	48.0		50.0	96								
Cadmium	49.4		50.0	99								
Chromium	48.6		50.0	97								
Cobalt	50.4		50.0	101								
Copper	49.9		50.0	100								
Iron	12600		12500	101								
Lead	49.7		50.0	99								
Manganese	250		250	100								
Molybdenum	49.6		50.0	99								
Nickel	50.2		50.0	100								
Selenium	49.5		50.0	99								
Silver	49.6		50.0	99								
Thallium	48.5		50.0	97								
Vanadium	49.8		50.0	100								
Zinc	50.2		50.0	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICV Source: MTMSCRI6020AW_00050 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00050

Analyte	ICVL 240-270964/9 03/16/2017 10:40				CCVL 240-270964/100 03/16/2017 17:11							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.13		2.00	106	1.89	J	2.00	95				
Arsenic	4.81	J	5.00	96	4.69	J	5.00	94				
Barium	4.85	J	5.00	97	5.09		5.00	102				
Beryllium	0.877	J	1.00	88	0.904	J	1.00	90				
Cadmium	1.07		1.00	107	1.04		1.00	104				
Chromium	2.11		2.00	106	2.13		2.00	107				
Cobalt	1.09		1.00	109	1.12		1.00	112				
Copper	2.22		2.00	111	2.19		2.00	109				
Iron	119		100	119	121		100	121				
Lead	1.06		1.00	106	1.12		1.00	112				
Manganese	5.23		5.00	105	5.49		5.00	110				
Molybdenum	5.14	J	5.00	103	4.84	J	5.00	97				
Nickel	2.21		2.00	111	2.21		2.00	110				
Selenium	5.14		5.00	103	5.14		5.00	103				
Silver	1.01		1.00	101	1.01		1.00	101				
Thallium	1.02		1.00	102	1.02		1.00	102				
Vanadium	5.08		5.00	102	5.07		5.00	101				
Zinc	23.4		20.0	117	23.3		20.0	117				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-270927/5 03/16/2017 08:38		CCB 240-270927/19 03/16/2017 09:41		CCB 240-270927/31 03/16/2017 10:55		CCB 240-270927/94 03/16/2017 15:36	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Magnesium	5000	230	U	230	U	230	U	230	U
Potassium	5000	70	U	70	U	70	U	1810	J
Sodium	5000	330	U	330	U	330	U	1020	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-270927/106 03/16/2017 16:34							
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U						
Magnesium	5000	230	U						
Potassium	5000	434	J						
Sodium	5000	330	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-270966/5 03/16/2017 14:13		CCB 240-270966/44 03/16/2017 17:12		CCB 240-270966/56 03/16/2017 18:02			
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U		
Magnesium	5000	230	U	230	U	230	U		
Potassium	5000	70	U	202	J	99.3	J		
SiO2, Silica	1100	140	U	140	U	140	U		
Sodium	5000	330	U	330	U	330	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-271122/5 03/17/2017 10:43		CCB 240-271122/19 03/17/2017 11:42		CCB 240-271122/31 03/17/2017 12:37		CCB 240-271122/35 03/17/2017 12:53	
		Found	C	Found	C	Found	C	Found	C
SiO2, Silica	1100	140	U	140	U	140	U	140	U
Calcium	5000	710	U	710	U	710	U	710	U
Magnesium	5000	230	U	230	U	230	U	230	U
Potassium	5000	70	U	70	U	70	U	70	U
Sodium	5000	330	U	330	U	330	U	330	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-271122/45 03/17/2017 13:35		CCB 240-271122/48 03/17/2017 13:47					
		Found	C	Found	C	Found	C	Found	C
SiO2, Silica	1100	140	U	140	U				
Calcium	5000	710	U	710	U				
Magnesium	5000	230	U	230	U				
Potassium	5000	70	U	70	U				
Sodium	5000	330	U	330	U				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-270964/8 03/16/2017 10:36		CCB 240-270964/71 03/16/2017 15:10		CCB 240-270964/83 03/16/2017 16:00		CCB 240-270964/95 03/16/2017 16:50	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.953	J	0.438	J	1.15	J	0.363	J
Arsenic	5.0	0.49	U	0.49	U	0.49	U	0.49	U
Barium	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Beryllium	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Cadmium	1.0	0.061	U	0.061	U	0.061	U	0.061	U
Chromium	2.0	0.60	U	0.60	U	0.60	U	0.60	U
Cobalt	1.0	0.021	U	0.021	U	0.0540	J	0.0320	J
Copper	2.0	0.75	U	0.75	U	0.75	U	0.75	U
Iron	100	16	U	17.3	J	24.1	J	18.2	J
Lead	1.0	0.11	U	0.11	U	0.155	J	0.11	U
Manganese	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Molybdenum	10	0.568	J	0.549	J	0.746	J	0.485	J
Nickel	2.0	0.23	U	0.23	U	0.23	U	0.23	U
Selenium	5.0	0.25	U	0.25	U	0.312	J	0.25	U
Silver	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Thallium	1.0	0.074	U	0.074	U	0.074	U	0.074	U
Vanadium	5.0	0.23	U	0.23	U	0.23	U	0.23	U
Zinc	20	7.3	U	7.3	U	7.3	U	7.3	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-270659/1-A

Instrument Code: I12 Batch No.: 270927

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	710	U		6010C
7440-09-7	Potassium	70	U		6010C
7439-95-4	Magnesium	230	U		6010C
7440-23-5	Sodium	330	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-270659/1-A

Instrument Code: I9 Batch No.: 271122

CAS No.	Analyte	Concentration	C	Q	Method
14808-60-7	SiO2, Silica	140	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-270659/1-A

Instrument Code: I10 Batch No.: 270964

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.27	U		6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	0.776	J		6020A
7440-41-7	Beryllium	0.40	U		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.26	U		6020A
7440-50-8	Copper	0.388	J		6020A
7439-89-6	Iron	19.6	J		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	6.32			6020A
7440-02-0	Nickel	0.438	J		6020A
7439-92-1	Lead	0.16	U		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	6.2	U		6020A
7440-22-4	Silver	0.030	U		6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICSA 240-270927/8 Instrument ID: I12

Lab File ID: I12031617A.asc ICS Source: MTTRICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**481400**	**96**
Magnesium	**500000**	**528250**	**106**
Potassium		**-14.8**	
Sodium		**35.4**	
Aluminum	*500000*	*533390*	*107*
Antimony		*1.10*	
Arsenic		*-3.93*	
Barium		*0.0278*	
Beryllium		*0.0383*	
Boron		*0.419*	
Cadmium		*1.09*	
Chromium		*2.80*	
Cobalt		*-5.03*	
Copper		*-6.56*	
Iron	*200000*	*197500*	*99*
Lead		*0.870*	
Lithium		*4.87*	
Manganese		*1.98*	
Molybdenum		*-4.56*	
Nickel		*-3.69*	
Selenium		*-0.756*	
Silicon		*16.2*	
Silver		*-2.48*	
Strontium		*6.74*	
Thallium		*8.84*	
Tin		*-0.293*	
Titanium		*-6.81*	
Vanadium		*-1.63*	
Zinc		*1.23*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICSAB 240-270927/9 Instrument ID: I12

Lab File ID: I12031617A.asc ICS Source: MTICPICSABW_00013

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**468980**	**94**
Magnesium	**500000**	**519900**	**104**
Potassium	**10000**	**10574**	**106**
Sodium	**10000**	**10464**	**105**
Aluminum	*500000*	*530820*	*106*
Antimony	*1000*	*974*	*97*
Arsenic	*1000*	*1007*	*101*
Barium	*500*	*495*	*99*
Beryllium	*500*	*469*	*94*
Boron	*500*	*498*	*100*
Cadmium	*1000*	*1049*	*105*
Chromium	*500*	*481*	*96*
Cobalt	*500*	*487*	*97*
Copper	*500*	*530*	*106*
Iron	*200000*	*192470*	*96*
Lead	*1000*	*900*	*90*
Lithium	*500*	*530*	*106*
Manganese	*500*	*491*	*98*
Molybdenum	*1000*	*931*	*93*
Nickel	*1000*	*973*	*97*
Selenium	*1000*	*1003*	*100*
Silicon	*10000*	*9961*	*100*
Silver	*1000*	*1064*	*106*
Strontium	*1500*	*1397*	*93*
Thallium	*1000*	*946*	*95*
Tin	*500*	*499*	*100*
Titanium	*500*	*491*	*98*
Vanadium	*500*	*476*	*95*
Zinc	*1000*	*990*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICSA 240-270966/8 Instrument ID: I9

Lab File ID: I9031617A.asc ICS Source: MTTRICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	*500000*	*513410*	*103*
Antimony		*8.70*	
Arsenic		*2.52*	
Barium		*0.0652*	
Beryllium		*0.0952*	
Boron		*-9.11*	
Cadmium		*0.414*	
Calcium	*500000*	*479130*	*96*
Chromium		*3.96*	
Cobalt		*-0.651*	
Copper		*-2.87*	
Iron	*200000*	*193640*	*97*
Lead		*3.00*	
Lithium		*11.2*	
Magnesium	*500000*	*511560*	*102*
Manganese		*1.90*	
Molybdenum		*-4.33*	
Nickel		*0.618*	
Potassium		*50.1*	
Selenium		*5.47*	
Silicon		*-47.5*	
Silver		*-0.123*	
Sodium		*76.1*	
Strontium		*6.05*	
Thallium		*1.05*	
Tin		*2.76*	
Titanium		*-1.54*	
Vanadium		*1.10*	
Zinc		*-0.745*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICSAB 240-270966/9 Instrument ID: I9

Lab File ID: I9031617A.asc ICS Source: MTICPICSABW_00013

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	*500000*	*510670*	*102*
Antimony	*1000*	*997*	*100*
Arsenic	*1000*	*1027*	*103*
Barium	*500*	*502*	*100*
Beryllium	*500*	*486*	*97*
Boron	*500*	*500*	*100*
Cadmium	*1000*	*1047*	*105*
Calcium	*500000*	*477300*	*95*
Chromium	*500*	*493*	*99*
Cobalt	*500*	*510*	*102*
Copper	*500*	*521*	*104*
Iron	*200000*	*193220*	*97*
Lead	*1000*	*897*	*90*
Lithium	*500*	*555*	*111*
Magnesium	*500000*	*510970*	*102*
Manganese	*500*	*496*	*99*
Molybdenum	*1000*	*934*	*93*
Nickel	*1000*	*1010*	*101*
Potassium	*10000*	*10710*	*107*
Selenium	*1000*	*1011*	*101*
Silicon	*10000*	*9395*	*94*
Silver	*1000*	*1102*	*110*
Sodium	*10000*	*10799*	*108*
Strontium	*1500*	*1431*	*95*
Thallium	*1000*	*958*	*96*
Tin	*500*	*519*	*104*
Titanium	*500*	*501*	*100*
Vanadium	*500*	*489*	*98*
Zinc	*1000*	*1053*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICSA 240-271122/8 Instrument ID: I9

Lab File ID: I9031717A.asc ICS Source: MTTRICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	*500000*	*519760*	*104*
Antimony		*6.15*	
Arsenic		*-0.743*	
Barium		*-0.0392*	
Beryllium		*0.162*	
Boron		*-9.74*	
Cadmium		*0.462*	
Calcium	*500000*	*485300*	*97*
Chromium		*4.30*	
Cobalt		*-0.937*	
Copper		*-3.29*	
Iron	*200000*	*196370*	*98*
Lead		*4.82*	
Lithium		*9.81*	
Magnesium	*500000*	*518080*	*104*
Manganese		*2.04*	
Molybdenum		*-2.80*	
Nickel		*0.724*	
Potassium		*329*	
Selenium		*7.44*	
Silicon		*13.5*	
Silver		*0.0115*	
Sodium		*127*	
Strontium		*18.9*	
Thallium		*1.70*	
Tin		*3.00*	
Titanium		*-0.907*	
Vanadium		*-4.37*	
Zinc		*0.436*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICSAB 240-271122/9 Instrument ID: I9

Lab File ID: I9031717A.asc ICS Source: MTICPICSABW_00013

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	*500000*	*515870*	*103*
Antimony	*1000*	*1006*	*101*
Arsenic	*1000*	*1037*	*104*
Barium	*500*	*512*	*102*
Beryllium	*500*	*496*	*99*
Boron	*500*	*502*	*100*
Cadmium	*1000*	*1048*	*105*
Calcium	*500000*	*482590*	*97*
Chromium	*500*	*495*	*99*
Cobalt	*500*	*511*	*102*
Copper	*500*	*524*	*105*
Iron	*200000*	*195550*	*98*
Lead	*1000*	*903*	*90*
Lithium	*500*	*554*	*111*
Magnesium	*500000*	*516600*	*103*
Manganese	*500*	*502*	*100*
Molybdenum	*1000*	*945*	*94*
Nickel	*1000*	*1017*	*102*
Potassium	*10000*	*10874*	*109*
Selenium	*1000*	*1021*	*102*
Silicon	*10000*	*9688*	*97*
Silver	*1000*	*1106*	*111*
Sodium	*10000*	*10860*	*109*
Strontium	*1500*	*1460*	*97*
Thallium	*1000*	*968*	*97*
Tin	*500*	*524*	*105*
Titanium	*500*	*509*	*102*
Vanadium	*500*	*490*	*98*
Zinc	*1000*	*1062*	*106*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICSA 240-270964/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.118**	
Arsenic		**0.0630**	
Barium		**0.0340**	
Beryllium		**0.0150**	
Cadmium		**0.0330**	
Chromium		**0.708**	
Cobalt		**0.0200**	
Copper		**0.276**	
Iron	**50000**	**51563**	**103**
Lead		**0.125**	
Manganese		**0.150**	
Molybdenum	**1000**	**1042**	**104**
Nickel		**0.0740**	
Selenium		**0.0850**	
Silver		**0.0150**	
Thallium		**-0.0010**	
Vanadium		**0.0490**	
Zinc		**-0.263**	
Aluminum	*50000*	*50524*	*101*
Boron		*1.41*	
Calcium	*50000*	*51333*	*103*
Lithium		*0.102*	
Magnesium	*50000*	*51185*	*102*
Potassium	*50000*	*51408*	*103*
Sodium	*50000*	*51203*	*102*
Strontium		*0.382*	
Tin		*-0.725*	
Titanium	*1000*	*1031*	*103*
Tungsten		*0.531*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Lab Sample ID: ICSAB 240-270964/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00075

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**99.7**	**100**
Barium	**100**	**98.9**	**99**
Beryllium	**100**	**104**	**104**
Cadmium	**100**	**98.1**	**98**
Chromium	**100**	**102**	**102**
Cobalt	**100**	**103**	**103**
Copper	**100**	**102**	**102**
Iron	**50000**	**51149**	**102**
Lead	**100**	**102**	**102**
Manganese	**100**	**102**	**102**
Molybdenum	**1100**	**1125**	**102**
Nickel	**100**	**102**	**102**
Selenium	**100**	**99.9**	**100**
Silver	**100**	**92.4**	**92**
Thallium	**100**	**102**	**102**
Vanadium	**100**	**101**	**101**
Zinc	**100**	**103**	**103**
Aluminum	*50000*	*48906*	*98*
Boron	*100*	*93.8*	*94*
Calcium	*50000*	*50910*	*102*
Lithium	*100*	*103*	*103*
Magnesium	*50000*	*49931*	*100*
Potassium	*50000*	*50535*	*101*
Sodium	*50000*	*49343*	*99*
Strontium	*100*	*99.4*	*99*
Tin	*100*	*94.4*	*94*
Titanium	*1100*	*1113*	*101*
Tungsten	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW81A-031317 MS
Lab ID: 240-76678-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-76678-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	101		1.3	J	100	99	75-125		6020A
Arsenic	976		3.1	J	1000	97	75-125		6020A
Barium	1200		160		1000	104	75-125		6020A
Beryllium	1010		0.98	J	1000	101	75-125		6020A
Cadmium	985		0.31	U	1000	98	75-125		6020A
Cobalt	1010		4.3		1000	101	75-125		6020A
Chromium	970		0.41	J	1000	97	75-125		6020A
Copper	993		0.44	J	1000	99	75-125		6020A
Iron	117000		110000		10000	95	75-125	4	6020A
Molybdenum	101		0.65	J	100	101	75-125		6020A
Manganese	4100		3100		1000	96	75-125		6020A
Nickel	1020		12		1000	101	75-125		6020A
Lead	966		0.32	J	1000	97	75-125		6020A
Selenium	977		3.4	J	1000	97	75-125		6020A
Thallium	240		0.28	U	250	96	75-125		6020A
Vanadium	998		0.54	U	1000	100	75-125		6020A
Zinc	993		21		1000	97	75-125		6020A
Silver	100		0.030	U	100	100	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-76704-Q-1-B MS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	65800		13000		50000	105	75-125		6010C
Potassium	54300		2400	J	50000	104	75-125		6010C
Magnesium	55800		3500	J	50000	104	75-125		6010C
Sodium	57400		7000		50000	101	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW81A-031317 MSD
Lab ID: 240-76678-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-76678-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	99.1		100	98	75-125	2	20		6020A
Arsenic	973		1000	97	75-125	0	20		6020A
Barium	1210		1000	105	75-125	1	20		6020A
Beryllium	995		1000	99	75-125	1	20		6020A
Cadmium	996		1000	100	75-125	1	20		6020A
Cobalt	1010		1000	100	75-125	0	20		6020A
Chromium	968		1000	97	75-125	0	20		6020A
Copper	976		1000	98	75-125	2	20		6020A
Iron	118000		10000	102	75-125	1	20	4	6020A
Molybdenum	101		100	101	75-125	0	20		6020A
Manganese	4190		1000	106	75-125	2	20		6020A
Nickel	1020		1000	101	75-125	0	20		6020A
Lead	1000		1000	100	75-125	4	20		6020A
Selenium	999		1000	100	75-125	2	20		6020A
Thallium	247		250	99	75-125	3	20		6020A
Vanadium	990		1000	99	75-125	1	20		6020A
Zinc	973		1000	95	75-125	2	20		6020A
Silver	101		100	101	75-125	0	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-76704-Q-1-C MSD

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	66100		50000	106	75-125	1	20		6010C
Potassium	53900		50000	103	75-125	1	20		6010C
Magnesium	55900		50000	105	75-125	0	20		6010C
Sodium	57000		50000	100	75-125	1	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-270659/2-A

Lab Name: TestAmerica Canton Job No.: 240-76678-1

Sample Matrix: Water LCS Source: MTICP2A_00068

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	48200		96	80	120		6010C
Potassium	50000	47700		95	80	120		6010C
Magnesium	50000	47900		96	80	120		6010C
Sodium	50000	47100		94	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-270659/2-A

Lab Name: TestAmerica Canton Job No.: 240-76678-1

Sample Matrix: Water LCS Source: MTICP1_00061

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
SiO2, Silica	2140	2120		99	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-270659/3-A

Lab Name: TestAmerica Canton Job No.: 240-76678-1

Sample Matrix: Water LCS Source: MTICPMSB_00030

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	97.7		98	80	120		6020A
Arsenic	1000	999		100	80	120		6020A
Barium	1000	1010		101	80	120		6020A
Beryllium	1000	1000		100	80	120		6020A
Cadmium	1000	1030		103	80	120		6020A
Cobalt	1000	1020		102	80	120		6020A
Chromium	1000	976		98	80	120		6020A
Copper	1000	1010		101	80	120		6020A
Iron	10000	9800		98	80	120		6020A
Molybdenum	100	96.8		97	80	120		6020A
Manganese	1000	1000		100	80	120		6020A
Nickel	1000	1030		103	80	120		6020A
Lead	1000	1000		100	80	120		6020A
Selenium	1000	1060		106	80	120		6020A
Thallium	250	250		100	80	120		6020A
Vanadium	1000	988		99	80	120		6020A
Zinc	1000	1020		102	80	120		6020A
Silver	100	99.8		100	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-76704-Q-1-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-76678-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	13000		13700	J	NC		6010C
Potassium	2400	J	5920	J	NC		6010C
Magnesium	3500	J	3600	J	NC		6010C
Sodium	7000		9310	J	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-76678-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-76678-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	1.3	J	1.4	U	NC		6020A
Arsenic	3.1	J	3.27	J	NC		6020A
Barium	160		170		NC		6020A
Beryllium	0.98	J	2.0	U	NC		6020A
Cadmium	0.31	U	1.6	U	NC		6020A
Cobalt	4.3		4.72	J	NC		6020A
Chromium	0.41	J	1.3	U	NC		6020A
Copper	0.44	J	1.8	U	NC		6020A
Iron	110000		118000		9.2		6020A
Molybdenum	0.65	J	2.6	U	NC		6020A
Manganese	3100		3430		9.4		6020A
Nickel	12		13.7		NC		6020A
Lead	0.32	J	0.80	U	NC		6020A
Selenium	3.4	J	4.31	J	NC		6020A
Thallium	0.28	U	1.4	U	NC		6020A
Vanadium	0.54	U	2.7	U	NC		6020A
Zinc	21		31	U	NC		6020A
Silver	0.030	U	0.15	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/16/2017 End Date: 03/16/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-270964/3 I	10:15	99		102		100		99		101	
STD2 240-270964/4 I	10:19	96		104		100		93		96	
STD3 240-270964/5 I	10:23	96		102		99		91		96	
STD4 240-270964/6 I	10:27	97		101		96		97		100	
ICV 240-270964/7	10:31	95		99		97		93		95	
ICB 240-270964/8	10:36	97		97		97		99		100	
ICVL 240-270964/9	10:40	100		102		101		102		103	
ICSA 240-270964/10	10:44	86		95		90		85		90	
ICSAB 240-270964/11	10:48	80		89		86		83		87	
CCV 240-270964/70	15:06	85		108		106		97		98	
CCB 240-270964/71	15:10	83		94		96		95		95	
MB 240-270659/1-A	15:31	74		77		76		77		77	
LCS 240-270659/3-A	15:35	75		73		79		69		70	
240-76678-2	15:39	71		76		75		71		74	
240-76678-2 SD	15:43	74		79		79		78		80	
240-76678-2 MS	15:52	65		71		70		66		69	
CCV 240-270964/82	15:56	72		76		76		74		76	
CCB 240-270964/83	16:00	74		74		75		78		80	
240-76678-2 MSD	16:04	64		72		66		66		68	
240-76678-3	16:08	67		67		67		66		69	
240-76678-4	16:12	68		69		69		68		71	
240-76678-5	16:16	62		62		63		54		59	
CCV 240-270964/94	16:46	69		75		71		72		76	
CCB 240-270964/95	16:50	70		70		70		75		77	
CCVL 240-270964/100	17:11	70		71		70		74		77	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/16/2017 End Date: 03/16/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-270964/3 I	10:15	100		101		97					
STD2 240-270964/4 I	10:19	98		98		94					
STD3 240-270964/5 I	10:23	97		97		92					
STD4 240-270964/6 I	10:27	99		99		99					
ICV 240-270964/7	10:31	97		97		95					
ICB 240-270964/8	10:36	100		99		99					
ICVL 240-270964/9	10:40	102		101		102					
ICSA 240-270964/10	10:44	92		91		91					
ICSAB 240-270964/11	10:48	89		88		87					
CCV 240-270964/70	15:06	95		95		87					
CCB 240-270964/71	15:10	90		90		89					
MB 240-270659/1-A	15:31	77		77		79					
LCS 240-270659/3-A	15:35	73		74		71					
240-76678-2	15:39	76		77		72					
240-76678-2 SD	15:43	81		82		79					
240-76678-2 MS	15:52	73		74		68					
CCV 240-270964/82	15:56	78		79		73					
CCB 240-270964/83	16:00	80		80		79					
240-76678-2 MSD	16:04	73		73		70					
240-76678-3	16:08	72		73		72					
240-76678-4	16:12	74		73		73					
240-76678-5	16:16	63		64		58					
CCV 240-270964/94	16:46	79		78		75					
CCB 240-270964/95	16:50	77		78		78					
CCVL 240-270964/100	17:11	78		78		79					

FORM XV - IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	710
Magnesium	279.078	5000	230
Potassium	766.491	5000	70
Sodium	330.232	5000	330

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	710
Magnesium	279.078	5000	230
Potassium	766.491	5000	70
Sodium	330.232	5000	330

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
SiO2, Silica	251.6	1070	140

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
SiO2, Silica	251.6	1070	140

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 12/13/2016 11:36

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.27
Arsenic	75.00	5	0.35
Barium	137.00	5	0.52
Beryllium	9.00	1	0.4
Cadmium	111.00	1	0.31
Chromium	52.00	2	0.26
Cobalt	59.00	1	0.13
Copper	65.00	2	0.36
Lead	208.00	1	0.16
Molybdenum	95.00	10	0.51
Nickel	60.00	2	0.28
Selenium	78.00	5	0.48
Silver	107.00	1	0.03
Thallium	205.00	1	0.28
Vanadium	51.00	5	0.54
Zinc	66.00	20	6.22

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 09/15/2014 17:03

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.16
Arsenic	75.00	5	0.49
Barium	137.00	5	1.1
Beryllium	9.00	1	0.053
Cadmium	111.00	1	0.061
Chromium	52.00	2	0.6
Cobalt	59.00	1	0.021
Copper	65.00	2	0.75
Lead	208.00	1	0.11
Molybdenum	95.00	10	0.23
Nickel	60.00	2	0.23
Selenium	78.00	5	0.25
Silver	107.00	1	0.02
Thallium	205.00	1	0.074
Vanadium	51.00	5	0.23
Zinc	66.00	20	7.3

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-76678-1

SDG No.:

Instrument ID: I12 Date: 01/24/2017 12:29

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		800000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Sodium		500000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-76678-1

SDG No.:

Instrument ID: I9 Date: 08/22/2016 11:36

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
SiO2, Silica		428000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-76678-1

SDG No.:

Instrument ID: I10 Date: 10/14/2016 11:32

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Arsenic		10000	6020A
Barium		10000	6020A
Beryllium		2000	6020A
Cadmium		4000	6020A
Cobalt		5000	6020A
Chromium		10000	6020A
Copper		10000	6020A
Molybdenum		2000	6020A
Nickel		10000	6020A
Lead		4000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Vanadium		10000	6020A
Zinc		10000	6020A
Silver		300	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-270659/1-A	03/15/2017 14:00	270659		50	50
LCS 240-270659/2-A	03/15/2017 14:00	270659		50	50
240-76678-4	03/15/2017 14:00	270659		50	50
240-76704-Q-1-B MS	03/15/2017 14:00	270659		50	50
240-76704-Q-1-C MSD	03/15/2017 14:00	270659		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-270659/1-A	03/15/2017 14:00	270659		50	50
LCS 240-270659/3-A	03/15/2017 14:00	270659		50	50
240-76678-2	03/15/2017 14:00	270659		50	50
240-76678-2 MS	03/15/2017 14:00	270659		50	50
240-76678-2 MSD	03/15/2017 14:00	270659		50	50
240-76678-3	03/15/2017 14:00	270659		50	50
240-76678-4	03/15/2017 14:00	270659		50	50
240-76678-5	03/15/2017 14:00	270659		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 03/16/2017 08:20 End Date: 03/17/2017 03:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	K	Mg	Na																					
ICIS 240-270927/1	1		08:20	X	X	X	X																					
CALSTD 240-270927/2 IC			08:25	X	X	X	X																					
CALSTD 240-270927/3 IC			08:29	X	X	X	X																					
ICV 240-270927/4	1		08:34	X	X	X	X																					
ICB 240-270927/5	1		08:38	X	X	X	X																					
ICVL 240-270927/6	1		08:43	X	X	X	X																					
ZZZZZZ			08:47																									
ICSA 240-270927/8	1		08:52	X	X	X	X																					
ICSAB 240-270927/9	1		08:56	X	X	X	X																					
CCV 240-270927/10			09:00																									
CCB 240-270927/11			09:05																									
ZZZZZZ			09:09																									
ZZZZZZ			09:14																									
ZZZZZZ			09:18																									
ZZZZZZ			09:23																									
ZZZZZZ			09:27																									
ZZZZZZ			09:32																									
CCV 240-270927/18	1		09:37	X	X	X	X																					
CCB 240-270927/19	1		09:41	X	X	X	X																					
MB 240-270659/1-A	1	R	10:06	X	X	X	X																					
LCS 240-270659/2-A	1	R	10:11	X	X	X	X																					
ZZZZZZ			10:15																									
ZZZZZZ			10:20																									
ZZZZZZ			10:25																									
ZZZZZZ			10:29																									
ZZZZZZ			10:34																									
ZZZZZZ			10:38																									
ZZZZZZ			10:42																									
ZZZZZZ			10:47																									
CCV 240-270927/30	1		10:51	X	X	X	X																					
CCB 240-270927/31	1		10:55	X	X	X	X																					
ZZZZZZ			11:00																									
ZZZZZZ			11:04																									
ZZZZZZ			11:08																									
ZZZZZZ			11:12																									
ZZZZZZ			11:17																									
ZZZZZZ			11:21																									
ZZZZZZ			11:25																									
ZZZZZZ			11:30																									
ZZZZZZ			11:34																									
ZZZZZZ			11:38																									
CCV 240-270927/42			11:42																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 03/16/2017 08:20 End Date: 03/17/2017 03:56

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
CCB 240-270927/43			11:46																										
ZZZZZZ			11:51																										
ZZZZZZ			11:56																										
ZZZZZZ			12:00																										
ZZZZZZ			12:05																										
ZZZZZZ			12:09																										
ZZZZZZ			12:14																										
ZZZZZZ			12:18																										
ZZZZZZ			12:23																										
ZZZZZZ			12:27																										
ZZZZZZ			12:31																										
CCV 240-270927/54			12:36																										
CCB 240-270927/55			12:40																										
CCV 240-270927/56			12:45																										
CCB 240-270927/57			12:49																										
CCV 240-270927/58			12:54																										
CCB 240-270927/59			12:58																										
ZZZZZZ			13:03																										
ZZZZZZ			13:07																										
ZZZZZZ			13:12																										
ZZZZZZ			13:16																										
ZZZZZZ			13:20																										
CCVL 240-270927/65			13:25																										
CCV 240-270927/66			13:29																										
CCB 240-270927/67			13:33																										
ICSA 240-270927/68			13:38																										
ICSAB 240-270927/69			13:43																										
ZZZZZZ			13:47																										
ZZZZZZ			13:51																										
ZZZZZZ			13:56																										
ZZZZZZ			14:01																										
ZZZZZZ			14:05																										
ZZZZZZ			14:10																										
ZZZZZZ			14:14																										
ZZZZZZ			14:18																										
CCV 240-270927/78			14:23																										
CCB 240-270927/79			14:27																										
ZZZZZZ			14:32																										
ZZZZZZ			14:37																										
ZZZZZZ			14:41																										
ZZZZZZ			14:46																										
ZZZZZZ			14:51																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 03/16/2017 08:20 End Date: 03/17/2017 03:56

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			14:55																										
ZZZZZZ			15:00																										
ZZZZZZ			15:04																										
ZZZZZZ			15:09																										
ZZZZZZ			15:14																										
CCV 240-270927/90			15:18																										
CCB 240-270927/91			15:22																										
ZZZZZZ			15:27																										
CCV 240-270927/93	1		15:32	X	X	X	X																						
CCB 240-270927/94	1		15:36	X	X	X	X																						
ZZZZZZ			15:46																										
240-76704-Q-1-A SD ^5	5	D	15:50	X	X	X	X																						
ZZZZZZ			15:55																										
240-76704-Q-1-B MS	1	D	15:59	X	X	X	X																						
240-76704-Q-1-C MSD	1	D	16:03	X	X	X	X																						
240-76678-4	1	R	16:07	X	X	X	X																						
ZZZZZZ			16:12																										
ZZZZZZ			16:16																										
ZZZZZZ			16:21																										
ZZZZZZ			16:25																										
CCV 240-270927/105	1		16:30	X	X	X	X																						
CCB 240-270927/106	1		16:34	X	X	X	X																						
ZZZZZZ			16:38																										
ZZZZZZ			16:43																										
ZZZZZZ			16:47																										
ZZZZZZ			16:52																										
ZZZZZZ			16:56																										
ZZZZZZ			17:01																										
ZZZZZZ			17:05																										
ZZZZZZ			17:10																										
ZZZZZZ			17:14																										
ZZZZZZ			17:18																										
CCV 240-270927/117			17:22																										
CCB 240-270927/118			17:26																										
ZZZZZZ			17:31																										
ZZZZZZ			17:35																										
ZZZZZZ			17:40																										
ZZZZZZ			17:44																										
ZZZZZZ			17:49																										
ZZZZZZ			17:53																										
ZZZZZZ			17:58																										
ZZZZZZ			18:03																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 03/16/2017 08:20 End Date: 03/17/2017 03:56

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			18:07																										
ZZZZZZ			18:12																										
CCV 240-270927/129			18:16																										
CCB 240-270927/130			18:20																										
ZZZZZZ			18:25																										
ZZZZZZ			18:29																										
ZZZZZZ			18:34																										
CCVL 240-270927/134	1		18:39	X	X	X	X																						
ZZZZZZ			18:43																										
ZZZZZZ			18:48																										
ZZZZZZ			18:52																										
ZZZZZZ			18:57																										
ZZZZZZ			19:02																										
ZZZZZZ			19:06																										
CCV 240-270927/141			19:11																										
CCB 240-270927/142			19:15																										
ZZZZZZ			19:20																										
ZZZZZZ			19:24																										
ZZZZZZ			19:29																										
ZZZZZZ			19:33																										
ZZZZZZ			19:38																										
ZZZZZZ			19:42																										
ZZZZZZ			19:46																										
ZZZZZZ			19:51																										
ZZZZZZ			19:55																										
ZZZZZZ			20:00																										
CCV 240-270927/153			20:04																										
CCB 240-270927/154			20:08																										
ZZZZZZ			20:13																										
ZZZZZZ			20:17																										
ZZZZZZ			20:22																										
ZZZZZZ			20:26																										
ZZZZZZ			20:31																										
ZZZZZZ			20:35																										
ZZZZZZ			20:40																										
ZZZZZZ			20:44																										
ZZZZZZ			20:49																										
ZZZZZZ			20:53																										
CCV 240-270927/165			20:58																										
CCB 240-270927/166			21:02																										
ZZZZZZ			21:06																										
ZZZZZZ			21:11																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 03/16/2017 08:20 End Date: 03/17/2017 03:56

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			21:15																										
ZZZZZZ			21:20																										
ZZZZZZ			21:25																										
ZZZZZZ			21:29																										
ZZZZZZ			21:33																										
ZZZZZZ			21:38																										
ZZZZZZ			21:42																										
ZZZZZZ			21:47																										
CCV 240-270927/177			21:52																										
CCB 240-270927/178			21:56																										
ZZZZZZ			22:01																										
ZZZZZZ			22:05																										
ZZZZZZ			22:10																										
ZZZZZZ			22:14																										
ZZZZZZ			22:19																										
ZZZZZZ			22:23																										
ZZZZZZ			22:28																										
ZZZZZZ			22:32																										
ZZZZZZ			22:37																										
ZZZZZZ			22:42																										
CCV 240-270927/189			22:47																										
CCB 240-270927/190			22:51																										
ZZZZZZ			22:55																										
ZZZZZZ			23:00																										
ZZZZZZ			23:05																										
ZZZZZZ			23:09																										
ZZZZZZ			23:14																										
ZZZZZZ			23:18																										
ZZZZZZ			23:23																										
ZZZZZZ			23:27																										
ZZZZZZ			23:32																										
ZZZZZZ			23:36																										
CCV 240-270927/201			23:41																										
CCB 240-270927/202			23:45																										
ZZZZZZ			23:49																										
ZZZZZZ			23:54																										
ZZZZZZ			23:59																										
ZZZZZZ			00:03																										
ZZZZZZ			00:08																										
ZZZZZZ			00:13																										
ZZZZZZ			00:17																										
ZZZZZZ			00:22																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 03/16/2017 08:20 End Date: 03/17/2017 03:56

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			00:27																										
ZZZZZZ			00:31																										
CCV 240-270927/213			00:36																										
CCB 240-270927/214			00:40																										
ZZZZZZ			00:45																										
ZZZZZZ			00:49																										
ZZZZZZ			00:53																										
ZZZZZZ			00:58																										
ZZZZZZ			01:03																										
ZZZZZZ			01:08																										
ZZZZZZ			01:12																										
ZZZZZZ			01:17																										
ZZZZZZ			01:22																										
ZZZZZZ			01:27																										
CCV 240-270927/225			01:31																										
CCB 240-270927/226			01:36																										
ZZZZZZ			01:40																										
ZZZZZZ			01:45																										
ZZZZZZ			01:49																										
ZZZZZZ			01:53																										
ZZZZZZ			01:58																										
ZZZZZZ			02:02																										
ZZZZZZ			02:06																										
ZZZZZZ			02:10																										
ZZZZZZ			02:14																										
ZZZZZZ			02:19																										
CCV 240-270927/237			02:23																										
CCB 240-270927/238			02:27																										
ZZZZZZ			02:32																										
ZZZZZZ			02:36																										
ZZZZZZ			02:41																										
ZZZZZZ			02:45																										
ZZZZZZ			02:50																										
ZZZZZZ			02:54																										
ZZZZZZ			02:58																										
ZZZZZZ			03:03																										
ZZZZZZ			03:07																										
ZZZZZZ			03:12																										
CCV 240-270927/249			03:16																										
CCB 240-270927/250			03:20																										
ZZZZZZ			03:25																										
ZZZZZZ			03:30																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 03/16/2017 08:20 End Date: 03/17/2017 03:56

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			03:34																										
ZZZZZZ			03:39																										
ZZZZZZ			03:43																										
ZZZZZZ			03:48																										
CCV 240-270927/257			03:52																										
CCB 240-270927/258			03:56																										

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 03/16/2017 13:56 End Date: 03/16/2017 22:08

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ICIS 240-270966/1	1		13:56	X	X	X	X	X																						
CALSTD 240-270966/2 IC			14:01	X	X	X	X	X																						
CALSTD 240-270966/3 IC			14:05	X	X	X	X	X																						
ICV 240-270966/4	1		14:09	X	X	X	X	X																						
ICB 240-270966/5	1		14:13	X	X	X	X	X																						
ICVL 240-270966/6	1		14:17	X	X	X	X	X																						
ZZZZZZ			14:21																											
ICSA 240-270966/8	1		14:25	X	X	X	X																							
ICSAB 240-270966/9	1		14:30	X	X	X	X																							
CCV 240-270966/10			14:34																											
CCB 240-270966/11			14:38																											
ZZZZZZ			14:42																											
ZZZZZZ			14:46																											
ZZZZZZ			14:51																											
ZZZZZZ			14:55																											
ZZZZZZ			14:59																											
ZZZZZZ			15:03																											
CCV 240-270966/18			15:08																											
CCB 240-270966/19			15:12																											
ZZZZZZ			15:29																											
ZZZZZZ			15:34																											
ZZZZZZ			15:38																											
ZZZZZZ			15:42																											
ZZZZZZ			15:46																											
ZZZZZZ			15:50																											
ZZZZZZ			15:54																											
ZZZZZZ			15:58																											
ZZZZZZ			16:02																											
ZZZZZZ			16:07																											
CCV 240-270966/30			16:11																											
CCB 240-270966/31			16:15																											
ZZZZZZ			16:19																											
CCV 240-270966/33			16:25																											
CCB 240-270966/34			16:29																											
ZZZZZZ			16:33																											
ZZZZZZ			16:38																											
ZZZZZZ			16:42																											
ZZZZZZ			16:47																											
ZZZZZZ			16:51																											
ZZZZZZ			16:55																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 03/16/2017 13:56 End Date: 03/16/2017 22:08

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			17:00																											
ZZZZZZ			17:04																											
CCV 240-270966/43	1		17:08	X	X	X	X	X																						
CCB 240-270966/44	1		17:12	X	X	X	X	X																						
ZZZZZZ			17:16																											
ZZZZZZ			17:21																											
ZZZZZZ			17:25																											
ZZZZZZ			17:29																											
ZZZZZZ			17:33																											
ZZZZZZ			17:37																											
ZZZZZZ			17:41																											
ZZZZZZ			17:45																											
ZZZZZZ			17:50																											
ZZZZZZ			17:54																											
CCV 240-270966/55	1		17:58	X	X	X	X	X																						
CCB 240-270966/56	1		18:02	X	X	X	X	X																						
ZZZZZZ			18:06																											
ZZZZZZ			18:10																											
ZZZZZZ			18:15																											
ZZZZZZ			18:19																											
ZZZZZZ			18:24																											
ZZZZZZ			18:28																											
ZZZZZZ			18:32																											
ZZZZZZ			18:36																											
ZZZZZZ			18:41																											
ZZZZZZ			18:45																											
CCV 240-270966/67			18:49																											
CCB 240-270966/68			18:53																											
ZZZZZZ			18:58																											
ZZZZZZ			19:02																											
ZZZZZZ			19:06																											
ZZZZZZ			19:10																											
ZZZZZZ			19:15																											
ZZZZZZ			19:19																											
ZZZZZZ			19:23																											
ZZZZZZ			19:28																											
ZZZZZZ			19:32																											
ZZZZZZ			19:36																											
CCV 240-270966/79			19:41																											
CCB 240-270966/80			19:45																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 03/16/2017 13:56 End Date: 03/16/2017 22:08

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			19:49																											
CCVL 240-270966/82	1		19:53	X	X	X	X	X																						
ZZZZZZ			19:57																											
ZZZZZZ			20:02																											
ZZZZZZ			20:06																											
ZZZZZZ			20:10																											
ZZZZZZ			20:14																											
ZZZZZZ			20:18																											
ZZZZZZ			20:22																											
ZZZZZZ			20:26																											
CCV 240-270966/91			20:30																											
CCB 240-270966/92			20:35																											
ZZZZZZ			20:39																											
ZZZZZZ			20:43																											
ZZZZZZ			20:47																											
ZZZZZZ			20:52																											
ZZZZZZ			20:56																											
ZZZZZZ			21:00																											
ZZZZZZ			21:04																											
ZZZZZZ			21:09																											
ZZZZZZ			21:13																											
ZZZZZZ			21:17																											
CCV 240-270966/103			21:21																											
CCB 240-270966/104			21:25																											
ZZZZZZ			21:30																											
ZZZZZZ			21:34																											
ZZZZZZ			21:38																											
ZZZZZZ			21:42																											
ZZZZZZ			21:47																											
ZZZZZZ			21:51																											
ZZZZZZ			21:55																											
ZZZZZZ			22:00																											
CCV 240-270966/113			22:04																											
CCB 240-270966/114			22:08																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 03/17/2017 10:27 End Date: 03/17/2017 20:38

Lab Sample Id	D/F	Type	Time	Analytes
				SiO2
ICIS 240-271122/1	1		10:27	X
CALSTD 240-271122/2 IC			10:31	X
CALSTD 240-271122/3 IC			10:35	X
ICV 240-271122/4	1		10:39	X
ICB 240-271122/5	1		10:43	X
ICVL 240-271122/6	1		10:47	X
ZZZZZZ			10:52	
ICSA 240-271122/8	1		10:56	
ICSAB 240-271122/9	1		11:00	
CCV 240-271122/10			11:04	
CCB 240-271122/11			11:08	
ZZZZZZ			11:12	
ZZZZZZ			11:17	
ZZZZZZ			11:21	
ZZZZZZ			11:25	
ZZZZZZ			11:29	
ZZZZZZ			11:34	
CCV 240-271122/18	1		11:38	X
CCB 240-271122/19	1		11:42	X
ZZZZZZ			11:51	
ZZZZZZ			11:55	
ZZZZZZ			11:59	
ZZZZZZ			12:03	
ZZZZZZ			12:07	
ZZZZZZ			12:11	
ZZZZZZ			12:15	
ZZZZZZ			12:20	
ZZZZZZ			12:24	
MB 240-270659/1-A	1	R	12:28	X
CCV 240-271122/30	1		12:33	X
CCB 240-271122/31	1		12:37	X
ZZZZZZ			12:41	
240-76678-4	4	R	12:45	X
CCV 240-271122/34	1		12:49	X
CCB 240-271122/35	1		12:53	X
ZZZZZZ			12:57	
ZZZZZZ			13:01	
ZZZZZZ			13:05	
ZZZZZZ			13:10	
ZZZZZZ			13:14	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 03/17/2017 10:27 End Date: 03/17/2017 20:38

Lab Sample Id	D/F	Type	Time	Analytes																									
				SiO2																									
ZZZZZZ			13:18																										
CCV 240-271122/42			13:22																										
CCB 240-271122/43			13:26																										
CCV 240-271122/44	1		13:31	X																									
CCB 240-271122/45	1		13:35	X																									
LCS 240-270659/2-A	1	R	13:39	X																									
CCV 240-271122/47	1		13:43	X																									
CCB 240-271122/48	1		13:47	X																									
ZZZZZZ			13:51																										
ZZZZZZ			13:56																										
ZZZZZZ			14:00																										
ZZZZZZ			14:04																										
ZZZZZZ			14:08																										
CCV 240-271122/54			14:14																										
CCB 240-271122/55			14:18																										
ZZZZZZ			14:22																										
ZZZZZZ			14:26																										
ZZZZZZ			14:30																										
ZZZZZZ			14:35																										
ZZZZZZ			14:39																										
ZZZZZZ			14:43																										
ZZZZZZ			14:48																										
ZZZZZZ			14:52																										
ZZZZZZ			14:56																										
ZZZZZZ			15:01																										
CCV 240-271122/66			15:05																										
CCB 240-271122/67			15:09																										
CCVL 240-271122/68	1		15:14	X																									
ZZZZZZ			15:18																										
ZZZZZZ			15:23																										
ZZZZZZ			15:27																										
ZZZZZZ			15:31																										
ZZZZZZ			15:35																										
ZZZZZZ			15:39																										
ZZZZZZ			15:44																										
ZZZZZZ			15:48																										
ZZZZZZ			15:52																										
CCV 240-271122/78			15:56																										
CCB 240-271122/79			16:00																										
ZZZZZZ			16:05																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 03/17/2017 10:27 End Date: 03/17/2017 20:38

Lab Sample Id	D/F	Type	Time	Analytes																									
				SiO2																									
ZZZZZZ			16:09																										
ZZZZZZ			16:13																										
ZZZZZZ			16:17																										
ZZZZZZ			16:21																										
ZZZZZZ			16:25																										
ZZZZZZ			16:29																										
ZZZZZZ			16:33																										
ZZZZZZ			16:38																										
ZZZZZZ			16:42																										
CCV 240-271122/90			16:46																										
CCB 240-271122/91			16:50																										
ZZZZZZ			16:54																										
ZZZZZZ			16:59																										
ZZZZZZ			17:03																										
ZZZZZZ			17:07																										
ZZZZZZ			17:11																										
ZZZZZZ			17:16																										
ZZZZZZ			17:20																										
ZZZZZZ			17:24																										
ZZZZZZ			17:29																										
ZZZZZZ			17:33																										
CCV 240-271122/102			17:38																										
CCB 240-271122/103			17:42																										
ZZZZZZ			17:46																										
ZZZZZZ			17:50																										
ZZZZZZ			17:55																										
ZZZZZZ			17:59																										
ZZZZZZ			18:03																										
ZZZZZZ			18:07																										
ZZZZZZ			18:11																										
ZZZZZZ			18:15																										
ZZZZZZ			18:19																										
ZZZZZZ			18:23																										
CCV 240-271122/114			18:27																										
CCB 240-271122/115			18:31																										
ZZZZZZ			18:36																										
ZZZZZZ			18:40																										
ZZZZZZ			18:44																										
ZZZZZZ			18:48																										
ZZZZZZ			18:53																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 03/17/2017 10:27 End Date: 03/17/2017 20:38

Lab Sample Id	D/F	Type	Time	Analytes																									
				SiO2																									
ZZZZZZ			18:57																										
ZZZZZZ			19:01																										
CCV 240-271122/123			19:05																										
CCB 240-271122/124			19:09																										
CCVL 240-271122/125			19:14																										
CCV 240-271122/126			19:18																										
CCB 240-271122/127			19:22																										
ZZZZZZ			19:26																										
ZZZZZZ			19:30																										
ZZZZZZ			19:34																										
ZZZZZZ			19:39																										
ZZZZZZ			19:43																										
ZZZZZZ			19:47																										
ZZZZZZ			19:52																										
ZZZZZZ			19:56																										
ZZZZZZ			20:00																										
ZZZZZZ			20:04																										
CCV 240-271122/138			20:09																										
CCB 240-271122/139			20:13																										
ZZZZZZ			20:17																										
ZZZZZZ			20:22																										
ZZZZZZ			20:26																										
ZZZZZZ			20:30																										
CCV 240-271122/144			20:34																										
CCB 240-271122/145			20:38																										

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/16/2017 10:06 End Date: 03/16/2017 17:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			10:06																									
ICIS 240-270964/2			10:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-270964/3 IC	1		10:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-270964/4 IC	1		10:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-270964/5 IC	1		10:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-270964/6 IC	1		10:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-270964/7	1		10:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-270964/8	1		10:36	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ICVL 240-270964/9	1		10:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-270964/10	1		10:44	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X								
ICSAB 240-270964/11	1		10:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-270964/12			10:52																									
CCB 240-270964/13			10:57																									
CCV 240-270964/14			11:05																									
CCB 240-270964/15			11:09																									
ZZZZZZ			11:14																									
ZZZZZZ			11:18																									
ZZZZZZ			11:22																									
ZZZZZZ			11:27																									
ZZZZZZ			11:31																									
ZZZZZZ			11:35																									
ZZZZZZ			11:39																									
ZZZZZZ			11:44																									
ZZZZZZ			11:48																									
ZZZZZZ			11:52																									
CCV 240-270964/26			11:56																									
CCB 240-270964/27			12:01																									
ZZZZZZ			12:05																									
ZZZZZZ			12:09																									
ZZZZZZ			12:13																									
ZZZZZZ			12:18																									
ZZZZZZ			12:22																									
ZZZZZZ			12:26																									
ZZZZZZ			12:30																									
ZZZZZZ			12:35																									
ZZZZZZ			12:39																									
ZZZZZZ			12:43																									
CCV 240-270964/38			12:47																									
CCB 240-270964/39			12:52																									
ZZZZZZ			12:56																									
ZZZZZZ			13:00																									
ZZZZZZ			13:04																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/16/2017 10:06 End Date: 03/16/2017 17:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			13:09																									
ZZZZZZ			13:13																									
ZZZZZZ			13:17																									
CCV 240-270964/46			13:26																									
CCB 240-270964/47			13:30																									
CCVL 240-270964/48			13:34																									
ZZZZZZ			13:38																									
ZZZZZZ			13:43																									
ZZZZZZ			13:46																									
ZZZZZZ			13:51																									
ZZZZZZ			13:55																									
ZZZZZZ			13:59																									
ZZZZZZ			14:03																									
ZZZZZZ			14:07																									
ZZZZZZ			14:11																									
CCV 240-270964/58			14:15																									
CCB 240-270964/59			14:19																									
ZZZZZZ			14:24																									
ZZZZZZ			14:28																									
ZZZZZZ			14:32																									
ZZZZZZ			14:36																									
ZZZZZZ			14:40																									
ZZZZZZ			14:45																									
ZZZZZZ			14:49																									
ZZZZZZ			14:53																									
ZZZZZZ			14:57																									
ZZZZZZ			15:01																									
CCV 240-270964/70	1		15:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-270964/71	1		15:10	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
CCVL 240-270964/72			15:14																									
ZZZZZZ			15:18																									
ZZZZZZ			15:23																									
ZZZZZZ			15:27																									
MB 240-270659/1-A	1	R	15:31	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
LCS 240-270659/3-A	1	R	15:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-76678-2	1	R	15:39	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
240-76678-2 SD	5	R	15:43	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
ZZZZZZ			15:48																									
240-76678-2 MS	1	R	15:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCV 240-270964/82	1		15:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-270964/83	1		16:00	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
240-76678-2 MSD	1	R	16:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/16/2017 10:06 End Date: 03/16/2017 17:24

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
240-76678-3	1	R	16:08	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X									
240-76678-4	1	R	16:12	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X									
240-76678-5	1	R	16:16	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X									
ZZZZZZ			16:21																											
ZZZZZZ			16:25																											
ZZZZZZ			16:29																											
ZZZZZZ			16:33																											
ZZZZZZ			16:38																											
ZZZZZZ			16:42																											
CCV 240-270964/94	1		16:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCB 240-270964/95	1		16:50	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X									
ZZZZZZ			16:54																											
ZZZZZZ			16:59																											
CCV 240-270964/98			17:03																											
CCB 240-270964/99			17:07																											
CCVL 240-270964/100	1		17:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			17:16																											
CCV 240-270964/102			17:20																											
CCB 240-270964/103			17:24																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 270659 Batch Start Date: 03/15/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 03/15/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00068	MTICP1 00061	MTICP2A 00068	MTTMHCL 00148
MB 240-270659/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-270659/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-76678-P-4	MRC-MW60B-031317	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-76704-Q-1 MS		3005A, 6010C	D	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-76704-Q-1 MSD		3005A, 6010C	D	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00112
MB 240-270659/1		3005A, 6010C		1 mL
LCS 240-270659/2		3005A, 6010C		1 mL
240-76678-P-4	MRC-MW60B-031317	3005A, 6010C	R	1 mL
240-76704-Q-1 MS		3005A, 6010C	D	1 mL
240-76704-Q-1 MSD		3005A, 6010C	D	1 mL

Batch Notes	
Filter Paper ID	9719597
Hot Block ID	HB3
Pipette ID	MP1-MP3
Digestion Tube/Cup ID	1605323

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 270659 Batch Start Date: 03/15/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 03/15/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00028	MTICPMSA 00030	MTICPMSB 00030	MTTMHCL 00148
MB 240-270659/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-270659/3		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-76678-C-2	MRC-MW81A-031317	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-76678-C-2 MS	MRC-MW81A-031317	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-76678-C-2 MSD	MRC-MW81A-031317	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-76678-F-3	MRC-MW60A-031317	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-76678-P-4	MRC-MW60B-031317	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-76678-D-5	MRC-MW78B-031317	3005A, 6020A	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00112					
MB 240-270659/1		3005A, 6020A		1 mL					
LCS 240-270659/3		3005A, 6020A		1 mL					
240-76678-C-2	MRC-MW81A-031317	3005A, 6020A	R	1 mL					
240-76678-C-2 MS	MRC-MW81A-031317	3005A, 6020A	R	1 mL					
240-76678-C-2 MSD	MRC-MW81A-031317	3005A, 6020A	R	1 mL					
240-76678-F-3	MRC-MW60A-031317	3005A, 6020A	R	1 mL					
240-76678-P-4	MRC-MW60B-031317	3005A, 6020A	R	1 mL					
240-76678-D-5	MRC-MW78B-031317	3005A, 6020A	R	1 mL					

Batch Notes	
Filter Paper ID	9719597
Hot Block ID	HB3
Pipette ID	MP1-MP3
Digestion Tube/Cup ID	1605323

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 270659 Batch Start Date: 03/15/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 03/15/17 22:00

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Analyst: LKG Batch Start Date: 11/24/2016

Reporting Units: mg/L Analytical Batch No.: 256972

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	12:13	Chloride	52.6	50.0	105	90-110		WCICLCS_00582
			Sulfate	52.7	50.0	105	90-110		WCICLCS_00582
11	ICB	12:33	Chloride	0.41				U	
			Sulfate	0.137				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Analyst: LKG Batch Start Date: 11/24/2016

Reporting Units: mg/L Analytical Batch No.: 256973

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	12:13	Nitrite as N	2.72	2.50	109	90-110		WCICLCS_00582
			Nitrate as N	2.52	2.50	101	90-110		WCICLCS_00582
11	ICB	12:33	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Analyst: LCN Batch Start Date: 03/14/2017

Reporting Units: mg/L Analytical Batch No.: 270522

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	20:21	Chloride	53.7	50.0	107	90-110		WCICCCV_00764
			Sulfate	54.4	50.0	109	90-110		WCICCCV_00764
2	CCB	20:41	Chloride	0.41				U	
			Sulfate	0.13				U	
13	CCV	00:23	Chloride	53.7	50.0	107	90-110		WCICCCV_00764
			Sulfate	54.3	50.0	109	90-110		WCICCCV_00764
14	CCB	00:43	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Analyst: LCN Batch Start Date: 03/14/2017

Reporting Units: mg/L Analytical Batch No.: 270523

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	20:21	Nitrite as N	2.64	2.50	106	90-110		WCICCCV_00764
			Nitrate as N	2.48	2.50	99	90-110		WCICCCV_00764
2	CCB	20:41	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
13	CCV	00:23	Nitrite as N	2.64	2.50	105	90-110		WCICCCV_00764
			Nitrate as N	2.47	2.50	99	90-110		WCICCCV_00764
14	CCB	00:43	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Analyst: JWW Batch Start Date: 03/14/2017

Reporting Units: mg/L Analytical Batch No.: 270540

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
11	ICV	13:18	Orthophosphate as P	0.551	0.509	108	90-110		WCWIBBYNUTRIE_00072
12	ICB	13:22	Orthophosphate as P	0.0050				U	
18	CCV	13:42	Orthophosphate as P	0.514	0.500	103	90-110		WCPhos 1ppm_00023
19	CCB	13:45	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Analyst: TPH Batch Start Date: 03/21/2017

Reporting Units: mg/L Analytical Batch No.: 271370

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
2	CCVL	10:33	Dissolved Organic Carbon	4.91	5.00	98	90-110		WC TOC CCVL_00144
3	CCB	10:40	Dissolved Organic Carbon	0.080				U	
10	CCVL	12:17	Dissolved Organic Carbon	4.94	5.00	99	90-110		WC TOC CCVL_00144
11	CCB	12:25	Dissolved Organic Carbon	0.080				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 270996 Date: 03/16/2017 12:58							
2320B-1997	MB 240-270996/5	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 270522 Date: 03/14/2017 21:01							
300.0	MB 240-270522/3	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-270522/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 270523 Date: 03/14/2017 21:01							
300.0	MB 240-270523/3	Nitrite as N	0.038	U	mg/L	0.10	1
300.0	MB 240-270523/3	Nitrate as N	0.035	U	mg/L	0.10	1
Batch ID: 271207 Date: 03/20/2017 13:43 Prep Batch: 271204 Date: 03/20/2017 11:37							
4500 NH3 C-1997	MB 240-271204/1-A	Ammonia	0.87	U	mg/L	2.0	1
Batch ID: 270540 Date: 03/14/2017 13:25							
4500 P E-1999	MB 240-270540/13	Orthophosphate as P	0.0050	U	mg/L	0.10	1
Batch ID: 271370 Date: 03/21/2017 10:49							
9060	MB 240-271370/4	Dissolved Organic Carbon	0.080	U	mg/L	1.0	1
Batch ID: 271165 Date: 03/20/2017 09:50							
SM 2540C	MB 240-271165/1	Total Dissolved Solids	7.4	U	mg/L	10	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 270522	Date: 03/14/2017 22:02										
300.0	240-76678-4	Chloride	18		mg/L						
300.0	240-76678-4 MS	Chloride	72.1		mg/L	50.0	109	80-120			
300.0	240-76678-4	Sulfate	2.9		mg/L						
300.0	240-76678-4 MS	Sulfate	58.5		mg/L	50.0	111	80-120			
Batch ID: 270523	Date: 03/14/2017 22:02										
300.0	240-76678-4	Nitrite as N	0.038	U	mg/L						
300.0	240-76678-4 MS	Nitrite as N	2.76		mg/L	2.50	110	80-120			
300.0	240-76678-4	Nitrate as N	0.035	U	mg/L						
300.0	240-76678-4 MS	Nitrate as N	2.58		mg/L	2.50	103	80-120			
Batch ID: 271207	Date: 03/20/2017 13:59	Prep Batch: 271204	Date: 03/20/2017 11:37								
4500 NH3 C-1997	240-76691-N-1 -B	Ammonia	0.87	U	mg/L						
4500 NH3 C-1997	240-76691-N-1 -B MS	Ammonia	4.48		mg/L	4.00	112	67-127			
Batch ID: 270540	Date: 03/14/2017 13:35										
4500 P E-1999	240-76678-4	Orthophosphate as P	0.020	J	mg/L						
4500 P E-1999	240-76678-4 MS	Orthophosphate as P	0.519		mg/L	0.500	100	31-154			
Batch ID: 271370	Date: 03/21/2017 11:33										
9060	240-76678-4	Dissolved Organic Carbon	0.41	J	mg/L						
9060	240-76678-4 MS	Dissolved Organic Carbon	5.33		mg/L	5.00	99	65-134			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 270522	Date: 03/14/2017 22:22										
300.0	240-76678-4 MSD	Chloride	71.1		mg/L	50.0	107	80-120	1	15	
300.0	240-76678-4 MSD	Sulfate	57.5		mg/L	50.0	109	80-120	2	15	
Batch ID: 270523	Date: 03/14/2017 22:22										
300.0	240-76678-4 MSD	Nitrite as N	2.67		mg/L	2.50	107	80-120	3	15	
300.0	240-76678-4 MSD	Nitrate as N	2.54		mg/L	2.50	102	80-120	1	15	
Batch ID: 271207	Date: 03/20/2017 14:00		Prep Batch: 271204		Date: 03/20/2017 11:37						
4500 NH3 C-1997	240-76691-N-1 -C MSD	Ammonia	4.20		mg/L	4.00	105	67-127	6	16	
Batch ID: 270540	Date: 03/14/2017 13:38										
4500 P E-1999	240-76678-4 MSD	Orthophosphate as P	0.525		mg/L	0.500	101	31-154	1	11	
Batch ID: 271370	Date: 03/21/2017 11:41										
9060	240-76678-4 MSD	Dissolved Organic Carbon	5.34		mg/L	5.00	99	65-134	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 270996 Date: 03/16/2017 13:18								
2320B-1997		240-76601-M-1	Alkalinity	51	mg/L			
2320B-1997		240-76601-M-1 DU	Alkalinity	52.4	mg/L	3	20	
Batch ID: 271165 Date: 03/20/2017 09:50								
SM 2540C	MRC-MW60B-031317	240-76678-4	Total Dissolved Solids	110	mg/L			
SM 2540C	MRC-MW60B-031317	240-76678-4 DU	Total Dissolved Solids	95.0	mg/L	12	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 270996	Date: 03/16/2017 12:52										
						LCS Source: WCPHENOMINER_00016					
2320B-1997	LCS 240-270996/4	Alkalinity	321		mg/L	334	96	86-123			
Batch ID: 270522	Date: 03/14/2017 21:21										
						LCS Source: WCICLCS_00601					
300.0	LCS 240-270522/4	Chloride	54.3		mg/L	50.0	109	90-110			
300.0	LCS 240-270522/4	Sulfate	54.3		mg/L	50.0	109	90-110			
Batch ID: 270523	Date: 03/14/2017 21:21										
						LCS Source: WCICLCS_00601					
300.0	LCS 240-270523/4	Nitrite as N	2.51		mg/L	2.50	100	90-110			
300.0	LCS 240-270523/4	Nitrate as N	2.57		mg/L	2.50	103	90-110			
Batch ID: 271207	Date: 03/20/2017 13:44	Prep Batch: 271204	Date: 03/20/2017 11:37								
						LCS Source: WCWIBBYNUTRIE_00074					
4500 NH3 C-1997	LCS 240-271204/2-A	Ammonia	10.1		mg/L	10.3	98	82-116			
Batch ID: 270540	Date: 03/14/2017 13:28										
						LCS Source: WCWIBBYNUTRIE_00072					
4500 P E-1999	LCS 240-270540/14	Orthophosphate as P	0.560		mg/L	0.509	110	80-120			
Batch ID: 271165	Date: 03/20/2017 09:50										
						LCS Source: WCPHENOVSOLID_00020					
SM 2540C	LCS 240-271165/2	Total Dissolved Solids	218		mg/L	208	105	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LOW LEVEL CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 271370	Date: 03/21/2017 10:57										
						LCS Source: WC LCS_00058					
9060	LLCS 240-271370/5	Dissolved Organic Carbon	4.72		mg/L	4.63	102	88-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 MDL Date: 05/28/2013 15:29

Prep Method: 4500 NH3 B-1997

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia		2	0.87

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 XMDL Date: 05/28/2013 15:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		2	0.87

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 MDL Date: 07/12/2013 09:18

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	1.9

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 XMDL Date: 07/12/2013 09:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.9

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 MDL Date: 08/12/2014 17:01

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 XMDL Date: 08/12/2014 17:02

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: 4500 P E-1999 MDL Date: 03/31/2016 13:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: 4500 P E-1999 XMDL Date: 02/17/2016 10:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 MDL Date: 04/28/2015 15:58

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 XMDL Date: 04/28/2015 15:59

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 01/28/2010 09:50

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76678-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 01/28/2010 09:51

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.4

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Prep Method: 4500 NH3 B-1997

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-271204/1-A	03/20/2017 11:37	271204		50	50
LCS 240-271204/2-A	03/20/2017 11:37	271204		50	50
240-76678-4	03/20/2017 11:37	271204		50	50
240-76691-N-1-B MS	03/20/2017 11:37	271204		50	50
240-76691-N-1-C MSD	03/20/2017 11:37	271204		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 4500 NH3 C-1997

Start Date: 03/20/2017 13:43 End Date: 03/20/2017 14:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
MB 240-271204/1-A	1	T	13:43	X																								
LCS 240-271204/2-A	1	T	13:44	X																								
ZZZZZZ			13:45																									
ZZZZZZ			13:47																									
ZZZZZZ			13:48																									
ZZZZZZ			13:49																									
ZZZZZZ			13:51																									
ZZZZZZ			13:52																									
ZZZZZZ			13:53																									
240-76678-4	1	T	13:55	X																								
ZZZZZZ			13:56																									
ZZZZZZ			13:57																									
240-76691-N-1-B MS	1	T	13:59	X																								
240-76691-N-1-C MSD	1	T	14:00	X																								
ZZZZZZ			14:01																									
ZZZZZZ			14:03																									
ZZZZZZ			14:04																									
ZZZZZZ			14:05																									
ZZZZZZ			14:07																									
ZZZZZZ			14:08																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 03/16/2017 12:14 End Date: 03/16/2017 17:05

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 240-270996/1			12:14																									
RINSE 240-270996/2			12:20																									
ZZZZZZ			12:40																									
LCS 240-270996/4	1	T	12:52	X																								
MB 240-270996/5	1	T	12:58	X																								
ZZZZZZ			13:02																									
ZZZZZZ			13:10																									
240-76601-M-1 DU	1	T	13:18	X																								
ZZZZZZ			13:40																									
ZZZZZZ			13:50																									
240-76678-4	1	T	13:57	X																								
ZZZZZZ			14:05																									
ZZZZZZ			14:15																									
ZZZZZZ			14:23																									
ZZZZZZ			14:31																									
ZZZZZZ			14:39																									
ZZZZZZ			14:43																									
ZZZZZZ			14:50																									
ZZZZZZ			14:57																									
ZZZZZZ			15:06																									
ZZZZZZ			15:13																									
ZZZZZZ			15:20																									
ZZZZZZ			15:28																									
ZZZZZZ			15:34																									
ZZZZZZ			15:43																									
ZZZZZZ			15:49																									
ZZZZZZ			15:57																									
ZZZZZZ			16:01																									
ZZZZZZ			16:14																									
ZZZZZZ			16:20																									
ZZZZZZ			16:26																									
ZZZZZZ			16:34																									
ZZZZZZ			16:43																									
ZZZZZZ			16:51																									
ZZZZZZ			17:01																									
ZZZZZZ			17:05																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 11/24/2016 09:12 End Date: 11/24/2016 12:33

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
STD1 240-256972/1 IC	1		09:12	X	X																								
STD2 240-256972/2 IC	1		09:32	X	X																								
STD3 240-256972/3 IC	1		09:52	X	X																								
STD4 240-256972/4 IC	1		10:12	X	X																								
STD5 240-256972/5 ICRT	1		10:32	X	X																								
STD6 240-256972/6 IC	1		10:53	X	X																								
STD7 240-256972/7 IC	1		11:13	X	X																								
STD8 240-256972/8 IC	1		11:33	X	X																								
STD9 240-256972/9 IC	1		11:53	X	X																								
ICV 240-256972/10	1		12:13	X	X																								
ICB 240-256972/11	1		12:33	X	X																								

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 11/24/2016 09:12 End Date: 11/24/2016 12:33

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
STD1 240-256973/1 IC	1		09:12	X	X																								
STD2 240-256973/2 IC	1		09:32	X	X																								
STD3 240-256973/3 IC	1		09:52	X	X																								
STD4 240-256973/4 IC	1		10:12	X	X																								
STD5 240-256973/5 ICRT	1		10:32	X	X																								
STD6 240-256973/6 IC	1		10:53	X	X																								
STD7 240-256973/7 IC	1		11:13	X	X																								
STD8 240-256973/8 IC	1		11:33	X	X																								
STD9 240-256973/9 IC	1		11:53	X	X																								
ICV 240-256973/10	1		12:13	X	X																								
ICB 240-256973/11	1		12:33	X	X																								

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/14/2017 20:21 End Date: 03/16/2017 11:50

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
CCV 240-270522/1	1		20:21	X	X																								
CCB 240-270522/2	1		20:41	X	X																								
MB 240-270522/3	1	T	21:01	X	X																								
LCS 240-270522/4	1	T	21:21	X	X																								
240-76678-4	1	T	21:42	X	X																								
240-76678-4 MS	1	T	22:02	X	X																								
240-76678-4 MSD	1	T	22:22	X	X																								
ZZZZZZ			22:42																										
ZZZZZZ			23:02																										
ZZZZZZ			23:23																										
ZZZZZZ			23:43																										
ZZZZZZ			00:03																										
CCV 240-270522/13	1		00:23	X	X																								
CCB 240-270522/14	1		00:43	X	X																								
ZZZZZZ			01:03																										
ZZZZZZ			01:23																										
ZZZZZZ			01:43																										
ZZZZZZ			02:03																										
ZZZZZZ			02:24																										
ZZZZZZ			02:44																										
ZZZZZZ			03:04																										
ZZZZZZ			03:24																										
ZZZZZZ			03:44																										
ZZZZZZ			04:04																										
CCV 240-270522/25			04:24																										
CCB 240-270522/26			04:44																										
ZZZZZZ			05:04																										
ZZZZZZ			05:24																										
ZZZZZZ			05:44																										
ZZZZZZ			06:05																										
ZZZZZZ			06:25																										
ZZZZZZ			06:45																										
ZZZZZZ			07:05																										
ZZZZZZ			07:25																										
ZZZZZZ			07:45																										
ZZZZZZ			08:05																										
CCV 240-270522/37			08:25																										
CCB 240-270522/38			08:45																										
ZZZZZZ			09:05																										
ZZZZZZ			09:25																										
ZZZZZZ			09:45																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/14/2017 20:21 End Date: 03/16/2017 11:50

Lab Sample Id	D/F	Type	Time	Analytes																									
				Cl-	SO4																								
ZZZZZZ			10:06																										
CCV 240-270522/43			05:28																										
CCB 240-270522/44			05:48																										
ZZZZZZ			06:28																										
ZZZZZZ			06:49																										
ZZZZZZ			07:09																										
ZZZZZZ			07:29																										
ZZZZZZ			07:49																										
ZZZZZZ			08:09																										
ZZZZZZ			08:29																										
CCV 240-270522/53			08:49																										
CCB 240-270522/54			09:09																										
ZZZZZZ			09:29																										
ZZZZZZ			09:49																										
ZZZZZZ			10:09																										
ZZZZZZ			10:29																										
ZZZZZZ			10:50																										
ZZZZZZ			11:10																										
CCV 240-270522/61			11:30																										
CCB 240-270522/62			11:50																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/14/2017 20:21 End Date: 03/16/2017 11:50

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-270523/1	1		20:21	X	X																								
CCB 240-270523/2	1		20:41	X	X																								
MB 240-270523/3	1	T	21:01	X	X																								
LCS 240-270523/4	1	T	21:21	X	X																								
240-76678-4	1	T	21:42	X	X																								
240-76678-4 MS	1	T	22:02	X	X																								
240-76678-4 MSD	1	T	22:22	X	X																								
CCV 240-270523/13	1		00:23	X	X																								
CCB 240-270523/14	1		00:43	X	X																								
CCV 240-270523/43			05:28																										
CCB 240-270523/44			05:48																										
ZZZZZZ			06:08																										
ZZZZZZ			06:28																										
ZZZZZZ			06:49																										
ZZZZZZ			07:09																										
ZZZZZZ			07:29																										
ZZZZZZ			07:49																										
ZZZZZZ			08:09																										
ZZZZZZ			08:29																										
CCV 240-270523/53			08:49																										
CCB 240-270523/54			09:09																										
ZZZZZZ			09:29																										
ZZZZZZ			09:49																										
ZZZZZZ			10:09																										
ZZZZZZ			10:29																										
ZZZZZZ			10:50																										
ZZZZZZ			11:10																										
CCV 240-270523/61			11:30																										
CCB 240-270523/62			11:50																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: ERNIE Analysis Method: 4500 P E-1999

Start Date: 03/14/2017 12:45 End Date: 03/14/2017 13:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp P																								
IC 240-270540/1	1		12:45	X																								
IC 240-270540/2	1		12:48	X																								
IC 240-270540/3	1		12:51	X																								
IC 240-270540/4	1		12:55	X																								
IC 240-270540/5	1		12:58	X																								
IC 240-270540/6	1		13:01	X																								
IC 240-270540/7	1		13:05	X																								
IC 240-270540/8	1		13:08	X																								
IC 240-270540/9	1		13:11	X																								
IC 240-270540/10	1		13:15	X																								
ICV 240-270540/11	1		13:18	X																								
ICB 240-270540/12	1		13:22	X																								
MB 240-270540/13	1	T	13:25	X																								
LCS 240-270540/14	1	T	13:28	X																								
240-76678-4	1	T	13:32	X																								
240-76678-4 MS	1	T	13:35	X																								
240-76678-4 MSD	1	T	13:38	X																								
CCV 240-270540/18	1		13:42	X																								
CCB 240-270540/19	1		13:45	X																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: Clark Analysis Method: 9060

Start Date: 03/21/2017 10:00 End Date: 03/21/2017 12:25

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			10:00																									
CCVL 240-271370/2	1		10:33	X																								
CCB 240-271370/3	1		10:40	X																								
MB 240-271370/4	1	D	10:49	X																								
LLCS 240-271370/5	1	D	10:57	X																								
240-76678-4	1	D	11:06	X																								
240-76678-4 MS	2	D	11:33	X																								
240-76678-4 MSD	2	D	11:41	X																								
ZZZZZZ			11:51																									
CCVL 240-271370/10	1		12:17	X																								
CCB 240-271370/11	1		12:25	X																								

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 03/20/2017 09:50 End Date: 03/20/2017 09:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-271165/1	1	T	09:50	X																								
LCS 240-271165/2	1	T	09:50	X																								
240-76678-4 DU	1	T	09:50	X																								
240-76678-4	1	T	09:50	X																								
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
ZZZZZZ			09:50																									
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ZZZZZZ			09:50																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 271204 Batch Start Date: 03/20/17 11:37 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 B-1997 Batch End Date: 03/20/17 13:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	AdjustedpH	WCNH31000 00046	WCWIBBYNUTRIE 00074
MB 240-271204/1		4500 NH3 B-1997, 4500 NH3 C-1997		x	50 mL	50 mL	x SU		
LCS 240-271204/2		4500 NH3 B-1997, 4500 NH3 C-1997		x	50 mL	50 mL	x SU		50 mL
240-76678-M-4	MRC-MW60B-031317	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		
240-76691-N-1 MS		4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU	0.2 mL	
240-76691-N-1 MSD		4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU	0.2 mL	

Batch Notes	
Base used for pH adjustment	2932916
Batch Comment	beakers 2950648
Borate Buffer Dispenser ID	2899113
Boric Acid Dispenser ID	2921781
Distilliation Unit ID	distillation block in wet prep
Distillation Temperature	162 Degrees C
Glass Beads Lot #	hengar 10/15/2015
Phenolphthalein ID	2959101
Pipette ID	B8 C9 E12

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 271207 Batch Start Date: 03/20/17 13:43 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 C-1997 Batch End Date: 03/20/17 14:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TitrantVolume1	CalcMsg		
MB 240-271204/1-A		4500 NH3 C-1997		50 mL	50 mL	0.00 mL	OK		
LCS 240-271204/2-A		4500 NH3 C-1997		50 mL	50 mL	1.80 mL	OK		
240-76678-M-4-A	MRC-MW60B-031317	4500 NH3 C-1997	T	50 mL	50 mL	0.10 mL	OK		
240-76691-N-1-B MS		4500 NH3 C-1997	T	50 mL	50 mL	0.80 mL	OK		
240-76691-N-1-C MSD		4500 NH3 C-1997	T	50 mL	50 mL	0.75 mL	OK		

Batch Notes	
Batch Comment	indicator 2914203
Sulfuric Acid Lot Number	2851240
Nominal Amount Used	50 mL
Perform Calculation (0=No, 1=Yes)	1
Normality of First Titrant	0.0200 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 270996 Batch Start Date: 03/16/17 12:14 Batch Analyst: Larue, Charles

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	FinalAmount	WCPHENOMINER 00016			
LCS 240-270996/4		2320B-1997		InitialAmount is blank	50 mL	50 mL			
MB 240-270996/5		2320B-1997		InitialAmount is blank	50 mL				
240-76601-M-1 DU		2320B-1997	T	InitialAmount is blank	50 mL				
240-76678-N-4	MRC-MW60B-031317	2320B-1997	T	InitialAmount is blank	50 mL				

Batch Notes	
pH Buffer 1 ID	4-2916912
pH Buffer 2 ID	7-2951052
pH Buffer 3 ID	10-2951044
pH Buffer 4 ID	12-2916963
Sulfuric Acid Lot Number	2851240
Nominal Amount Used	50 mL
Probe ID	112
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 256972 Batch Start Date: 11/24/16 09:12 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00272	WCICLCS 00582			
STD1 240-256972/1 IC		300.0		5 mL	0.025 mL				
STD2 240-256972/2 IC		300.0		5 mL	0.125 mL				
STD3 240-256972/3 IC		300.0		5 mL	0.25 mL				
STD4 240-256972/4 IC		300.0		5 mL	0.5 mL				
STD5 240-256972/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-256972/6 IC		300.0		5 mL	2 mL				
STD7 240-256972/7 IC		300.0		5 mL	2.5 mL				
STD8 240-256972/8 IC		300.0		5 mL	3.75 mL				
STD9 240-256972/9 IC		300.0		5 mL	5 mL				
ICV 240-256972/10		300.0		5 mL		5 mL			
ICB 240-256972/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 256973 Batch Start Date: 11/24/16 09:12 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00272	WCICLCS 00582			
STD1 240-256973/1 IC		300.0		5 mL	0.025 mL				
STD2 240-256973/2 IC		300.0		5 mL	0.125 mL				
STD3 240-256973/3 IC		300.0		5 mL	0.25 mL				
STD4 240-256973/4 IC		300.0		5 mL	0.5 mL				
STD5 240-256973/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-256973/6 IC		300.0		5 mL	2 mL				
STD7 240-256973/7 IC		300.0		5 mL	2.5 mL				
STD8 240-256973/8 IC		300.0		5 mL	3.75 mL				
STD9 240-256973/9 IC		300.0		5 mL	5 mL				
ICV 240-256973/10		300.0		5 mL		5 mL			
ICB 240-256973/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 270522 Batch Start Date: 03/14/17 20:21 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00764	WCICLCS 00601	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-270522/1		300.0		5 mL	5 mL				
CCB 240-270522/2		300.0		5 mL					
MB 240-270522/3		300.0		5 mL					
LCS 240-270522/4		300.0		5 mL		5 mL			
240-76678-N-4	MRC-MW60B-031317	300.0	T	5 mL					
240-76678-N-4 MS	MRC-MW60B-031317	300.0	T	5 mL			0.1 mL	0.1 mL	
240-76678-N-4 MSD	MRC-MW60B-031317	300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-270522/13		300.0		5 mL	5 mL				
CCB 240-270522/14		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 270523 Batch Start Date: 03/14/17 20:21 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00764	WCICLCS 00601	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-270523/1		300.0		5 mL	5 mL				
CCB 240-270523/2		300.0		5 mL					
MB 240-270523/3		300.0		5 mL					
LCS 240-270523/4		300.0		5 mL		5 mL			
240-76678-N-4	MRC-MW60B-031317	300.0	T	5 mL					
240-76678-N-4 MS	MRC-MW60B-031317	300.0	T	5 mL			0.1 mL	0.1 mL	
240-76678-N-4 MSD	MRC-MW60B-031317	300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-270523/13		300.0		5 mL	5 mL				
CCB 240-270523/14		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 270540 Batch Start Date: 03/14/17 12:45 Batch Analyst: Weimer, Joshua W

Batch Method: 4500 P E-1999 Batch End Date: 03/14/17 13:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	UnCorResp	ColorBlk	WCPhos 1ppm 00023	WCPHOS50PPM 00088
IC 240-270540/1		4500 P E-1999		10 mL	10 mL				
IC 240-270540/2		4500 P E-1999		10 mL	10 mL			0.1 mL	
IC 240-270540/3		4500 P E-1999		10 mL	10 mL			0.2 mL	
IC 240-270540/4		4500 P E-1999		10 mL	10 mL			0.6 mL	
IC 240-270540/5		4500 P E-1999		10 mL	10 mL			1 mL	
IC 240-270540/6		4500 P E-1999		10 mL	10 mL			2 mL	
IC 240-270540/7		4500 P E-1999		10 mL	10 mL			4 mL	
IC 240-270540/8		4500 P E-1999		10 mL	10 mL			6 mL	
IC 240-270540/9		4500 P E-1999		10 mL	10 mL			8 mL	
IC 240-270540/10		4500 P E-1999		10 mL	10 mL			10 mL	
ICV 240-270540/11		4500 P E-1999		10 mL	10 mL				
ICB 240-270540/12		4500 P E-1999		10 mL	10 mL				
MB 240-270540/13		4500 P E-1999		10 mL	10 mL				
LCS 240-270540/14		4500 P E-1999		10 mL	10 mL				
240-76678-N-4	MRC-MW60B-031317	4500 P E-1999	T	10 mL	10 mL	0.045 Absorbance	0.023 Absorbance		
240-76678-N-4 MS	MRC-MW60B-031317	4500 P E-1999	T	10 mL	10 mL	0.534 Absorbance	0.023 Absorbance		0.1 mL
240-76678-N-4 MSD	MRC-MW60B-031317	4500 P E-1999	T	10 mL	10 mL	0.540 Absorbance	0.023 Absorbance		0.1 mL
CCV 240-270540/18		4500 P E-1999		10 mL	10 mL			5 mL	
CCB 240-270540/19		4500 P E-1999		10 mL	10 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	WCWIBBYNUTRIE 00072					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 270540 Batch Start Date: 03/14/17 12:45 Batch Analyst: Weimer, Joshua W

Batch Method: 4500 P E-1999 Batch End Date: 03/14/17 13:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	WCWIBBYNUTRIE 00072					
IC 240-270540/1		4500 P E-1999							
IC 240-270540/2		4500 P E-1999							
IC 240-270540/3		4500 P E-1999							
IC 240-270540/4		4500 P E-1999							
IC 240-270540/5		4500 P E-1999							
IC 240-270540/6		4500 P E-1999							
IC 240-270540/7		4500 P E-1999							
IC 240-270540/8		4500 P E-1999							
IC 240-270540/9		4500 P E-1999							
IC 240-270540/10		4500 P E-1999							
ICV 240-270540/11		4500 P E-1999		1 mL					
ICB 240-270540/12		4500 P E-1999							
MB 240-270540/13		4500 P E-1999							
LCS 240-270540/14		4500 P E-1999		1 mL					
240-76678-N-4	MRC-MW60B-031317	4500 P E-1999	T						
240-76678-N-4 MS	MRC-MW60B-031317	4500 P E-1999	T						
240-76678-N-4 MSD	MRC-MW60B-031317	4500 P E-1999	T						
CCV 240-270540/18		4500 P E-1999							
CCB 240-270540/19		4500 P E-1999							

Batch Notes	
Pipette ID	B8/C2/E1/F5

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 270540 Batch Start Date: 03/14/17 12:45 Batch Analyst: Weimer, Joshua W

Batch Method: 4500 P E-1999 Batch End Date: 03/14/17 13:49

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 271370 Batch Start Date: 03/21/17 10:00 Batch Analyst: Harshman, Tom

Batch Method: 9060 Batch End Date: 03/21/17 12:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WC LCS 00058	WC TOC CCVL 00144		
CCVL 240-271370/2		9060		40 mL	40 mL		40 mL		
CCB 240-271370/3		9060		40 mL	40 mL				
MB 240-271370/4		9060		40 mL	40 mL				
LLCS 240-271370/5		9060		40 mL	40 mL	4 mL			
240-76678-I-4	MRC-MW60B-031317	9060	D	40 mL	40 mL				
240-76678-I-4 MS	MRC-MW60B-031317	9060	D	40 mL	40 mL		20 mL		
240-76678-I-4 MSD	MRC-MW60B-031317	9060	D	40 mL	40 mL		20 mL		
CCVL 240-271370/10		9060		40 mL	40 mL		40 mL		
CCB 240-271370/11		9060		40 mL	40 mL				

Batch Notes	
Phosphoric Acid ID	2959670
Sodium Persulfate ID	2959671

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 271165 Batch Start Date: 03/20/17 09:50 Batch Analyst: Burns, Jill

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	WeightOne%Diff
MB 240-271165/1		SM 2540C			100 mL	3.6056 g	3.6057 g	3.6058 g	Pass No Unit
LCS 240-271165/2		SM 2540C			50 mL	3.6272 g	3.6380 g	3.6381 g	Pass No Unit
240-76678-N-4 DU	MRC-MW60B-031317	SM 2540C	T	160 umhos/cm	100 mL	3.6179 g	3.6269 g	3.6274 g	Pass No Unit
240-76678-N-4	MRC-MW60B-031317	SM 2540C	T	160 umhos/cm	100 mL	3.6917 g	3.7028 g	3.7024 g	Pass No Unit

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3	Residue4
MB 240-271165/1		SM 2540C		N/A No Unit	N/A	0.0001 g	0.0002 g	N/A g	N/A g
LCS 240-271165/2		SM 2540C		N/A No Unit	N/A	0.0108 g	0.0109 g	N/A g	N/A g
240-76678-N-4 DU	MRC-MW60B-031317	SM 2540C	T	N/A No Unit	N/A	0.009 g	0.0095 g	N/A g	N/A g
240-76678-N-4	MRC-MW60B-031317	SM 2540C	T	N/A No Unit	N/A	0.0111 g	0.0107 g	N/A g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WCPHENOVSOLID 00020			
MB 240-271165/1		SM 2540C		100 mL	OK				
LCS 240-271165/2		SM 2540C		100 mL	OK	50 mL			
240-76678-N-4 DU	MRC-MW60B-031317	SM 2540C	T	100 mL	OK				
240-76678-N-4	MRC-MW60B-031317	SM 2540C	T	100 mL	OK				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG No.:

Batch Number: 271165 Batch Start Date: 03/20/17 09:50 Batch Analyst: Burns, Jill

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	B048
Batch Comment	TDS VESSELS--122116LR-6356
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	3/21/17 1435
Constant Weight (WT2) Date/Time Out	3/21/17 1642
Uncorrected CW (Wt2) Temp In	178 Degrees C
Uncorrected CW (Wt2) Temp Out	178 Degrees C
Constant Weight (WT3) Date/time In	3/21/17 1758
Constant Weight (WT3) Date/Time Out	3/22/17 7:30
Uncorrected CW (Wt3) Temp In	178 Degrees C
Uncorrected CW (Wt3) Temp Out	180 Degrees C
Corrected Temperature in Oven	104 Degrees C
Date/Time Samples placed in Oven	03/20/17 11:07
Date/Time Samples Removed from Oven	3/21/17 0945
Filter Paper ID	2793792
Nominal Amount Used	100 mL
Oven ID	O06/O01
Uncorrected Out Temperature	102 Degrees C
Weight(WT1) Start Date/Time	3/21/17 0945
Weight(WT1) Date/Time Out	3/21/17 1307
Uncorrected Weight(WT1) Start Temp	178 Degrees C
Uncorrected Weight(WT1) Temp Out	178 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

SAMPLE IDENTIFICATION	MRC-MW60A-031317
COMPOUND	cis-1,2-Dichloroethene
COMPOUND AREA	228374
INTERNAL STANDARD AMOUNT	20
DILUTION FACTOR	50
INTERNAL STANDARD AREA	927787
AVERAGE RRF	0.4714

522.17 µg/L

228374 x 20 x 50 / 927787 x 0.4714

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW60A-031317 | Lab Sample ID: 240-76678-3

Matrix: Water | Lab File ID: U1256091.D

Analysis Method: 8260C | Date Collected: 03/13/2017 11:19

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 16:47

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	12	U	50	12
79-34-5	1,1,2,2-Tetrachloroethane	16	U	50	16
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	21	U	50	21
79-00-5	1,1,2-Trichloroethane	17	U	50	17
75-34-3	1,1-Dichloroethane	13	U	50	13
75-35-4	1,1-Dichloroethene	14	U	50	14
120-82-1	1,2,4-Trichlorobenzene	14	U	50	14
96-12-8	1,2-Dibromo-3-Chloropropane	24	U	100	24
106-93-4	Ethylene Dibromide	12	U	50	12
95-50-1	1,2-Dichlorobenzene	13	U	50	13
107-06-2	1,2-Dichloroethane	15	U	50	15
78-87-5	1,2-Dichloropropane	15	U	50	15
541-73-1	1,3-Dichlorobenzene	16	U	50	16
106-46-7	1,4-Dichlorobenzene	12	U	50	12
78-93-3	2-Butanone (MEK)	51	U	500	51
591-78-6	2-Hexanone	62	U	500	62
108-10-1	4-Methyl-2-pentanone (MIBK)	36	U	500	36
67-64-1	Acetone	88	U	500	88
71-43-2	Benzene	14	U	50	14
75-27-4	Dichlorobromomethane	15	U	50	15
75-25-2	Bromoform	22	U	50	22
74-83-9	Bromomethane	21	U	50	21
75-15-0	Carbon disulfide	17	U	50	17
56-23-5	Carbon tetrachloride	18	U	50	18
108-90-7	Chlorobenzene	16	U	50	16
75-00-3	Chloroethane	21	U	50	21
67-66-3	Chloroform	16	U	50	16
74-87-3	Chloromethane	22	U	50	22
156-59-2	cis-1,2-Dichloroethene	520		50	15
10061-01-5	cis-1,3-Dichloropropene	13	U	50	13
110-82-7	Cyclohexane	22	U	50	22
124-48-1	Chlorodibromomethane	13	U	50	13
75-71-8	Dichlorodifluoromethane	25	U	50	25
100-41-4	Ethylbenzene	13	U	50	13
98-82-8	Isopropylbenzene	11	U	50	11

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20170323-63379.b\U1256091.D
Lims ID: 240-76678-A-3
Client ID: MRC-MW60A-031317
Sample Type: Client
Inject. Date: 23-Mar-2017 16:47:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 240-0063379-019
Operator ID: 001765 Instrument ID: A3UX12

Method: \\ChromNA\Canton\ChromData\A3UX12\20170323-63379.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 24-Mar-2017 08:20:50 Calib Date: 05-Jan-2017 00:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20170104-61282.b\U1254942.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bosworthh Date: 24-Mar-2017 08:23:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.157	5.157	0.000	99	927787	20.0	
* 2 Chlorobenzene-d5	117	7.819	7.820	-0.001	85	806792	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.032	10.032	0.000	95	399901	20.0	
$ 4 Dibromofluoromethane (Surr	113	4.601	4.601	0.000	94	221818	18.2	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.885	4.885	0.000	90	260037	16.8	
$ 6 Toluene-d8 (Surr)	98	6.518	6.518	0.000	93	993919	15.4	
$ 7 4-Bromofluorobenzene (Surr	95	8.920	8.920	0.000	93	358238	14.0	
9 Dichlorodifluoromethane	85		1.406				ND	
10 Chloromethane	50		1.536				ND	
11 Vinyl chloride	62	1.654	1.643	0.011	96	32323	1.39	
13 Bromomethane	94		1.939				ND	
14 Chloroethane	64		2.045				ND	
16 Trichlorofluoromethane	101		2.258				ND	
21 1,1-Dichloroethene	61		2.720				ND	
20 1,1,2-Trichloro-1,2,2-trif	101		2.732				ND	
22 Acetone	43		2.755				ND	
24 Carbon disulfide	76		2.909				ND	
27 Methyl acetate	43		3.039				ND	
28 Methylene Chloride	49	3.157	3.146	0.011	93	33803	1.44	
32 trans-1,2-Dichloroethene	61		3.347				ND	
31 Methyl tert-butyl ether	73		3.359				ND	
34 1,1-Dichloroethane	63		3.714				ND	
40 cis-1,2-Dichloroethene	61	4.199	4.199	0.000	79	228374	10.4	
41 2-Butanone (MEK)	43		4.211				ND	
47 Chloroform	83		4.459				ND	
48 1,1,1-Trichloroethane	97		4.625				ND	
49 Cyclohexane	84		4.672				ND	
51 Carbon tetrachloride	117		4.767				ND	
53 Benzene	78		4.932				ND	
54 1,2-Dichloroethane	62		4.944				ND	
58 Trichloroethene	130	5.477	5.477	0.000	98	412158	26.6	
60 Methylcyclohexane	83		5.642				ND	

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76678-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.6210 0.3277	0.5791	0.5426	0.3933	0.3862	Qua	0.2080	0.4694	-0.002399						0.9960		0.9900
Methyl acetate	0.3912 0.2619	0.3554	0.2642	0.2018	0.2639	Lin1	0.3597	0.2515			0.1000				0.9910		0.9900
Methylene Chloride	+++++ 0.4713	0.6069	0.4991	0.4768	0.4793	Ave		0.5067			0.1000	11.2		20.0			
2-Methyl-2-propanol	0.0464 0.0453	0.0550	0.0433	0.0471	0.0482	Ave		0.0475				8.4		20.0			
Acrylonitrile	0.1536 0.1502	0.1591	0.1458	0.1521	0.1493	Ave		0.1517				3.0		20.0			
trans-1,2-Dichloroethene	0.4305 0.4370	0.4475	0.4276	0.4424	0.4340	Ave		0.4365			0.1000	1.7		20.0			
Methyl tert-butyl ether	1.0427 1.0276	1.0339	0.9955	1.0040	0.9988	Ave		1.0171			0.1000	2.0		20.0			
Hexane	0.4486 0.3943	0.4501	0.4630	0.4278	0.4054	Ave		0.4315				6.3		20.0			
1,1-Dichloroethane	0.5335 0.5647	0.6038	0.5627	0.5728	0.5722	Ave		0.5683			0.2000	4.0		20.0			
Vinyl acetate	0.8483 0.6698	0.8788	0.6659	0.6839	0.6710	Ave		0.7363				13.5		20.0			
cis-1,2-Dichloroethene	0.4797 0.4613	0.4772	0.4761	0.4680	0.4663	Ave		0.4714			0.1000	1.5		20.0			
2,2-Dichloropropane	0.2862 0.2300	0.2787	0.2689	0.2557	0.2419	Ave		0.2602				8.4		20.0			
2-Butanone (MEK)	+++++ 0.1870	0.2513	0.1753	0.1880	0.1879	Ave		0.1979			0.0100	15.3		20.0			
Chlorobromomethane	0.2504 0.2548	0.2768	0.2645	0.2612	0.2670	Ave		0.2625				3.6		20.0			
Tetrahydrofuran	0.1437 0.1224	0.1462	0.1238	0.1280	0.1244	Ave		0.1314				8.1		20.0			
Chloroform	0.4612 0.4916	0.5153	0.5004	0.4949	0.4938	Ave		0.4929			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.3724 0.3778	0.3484	0.4017	0.3901	0.3914	Ave		0.3803			0.1000	4.9		20.0			
Cyclohexane	0.4902 0.4885	0.5629	0.5622	0.5272	0.4938	Ave		0.5208			0.1000	6.8		20.0			
1,1-Dichloropropene	0.4736 0.4223	0.4147	0.4437	0.4344	0.4313	Ave		0.4367				4.7		20.0			
Carbon tetrachloride	0.2764 0.3400	0.3256	0.3542	0.3458	0.3376	Ave		0.3299			0.1000	8.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

SAMPLE CALCULATION - SVOC	WATER	
SAMPLE IDENTIFICATION	MRC-MW81A-031317	
COMPOUND	1,4-Dioxane	
COMPOUND AREA	35447	
INTERNAL STANDARD AMOUNT (ng)	0.5	
INTERNAL STANDARD AREA	280351	
AVERAGE RRF	0.6245	
35447 x 0.5 x 1 / 280351 x 0.6245	0.1012	ng/ul
DILUTION FACTOR	1	
SAMPLE VOLUME (ml)	100	
VOLUME EXTRACT (ml)	2	
µl in 1ml	1000	
0.101231328739311 x 1 x 1000 x 2 / (100)	2.0	ug/L

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76678-1

SDG No.:

Client Sample ID: MRC-MW81A-031317 | Lab Sample ID: 240-76678-2

Matrix: Water | Lab File ID: Z24401_08.D

Analysis Method: 522 | Date Collected: 03/13/2017 09:51

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 16:57

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.0		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	90		46-130

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHZ.i\20170322-24401.b\Z24401_08.D
Lims ID: 240-76678-A-2-A
Client ID: MRC-MW81A-031317
Sample Type: Client
Inject. Date: 22-Mar-2017 16:57:30 ALS Bottle#: 6 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 200-0024401-008
Operator ID: TPB Instrument ID: CHZ.i

Method: \\ChromNA\Burlington\ChromData\CHZ.i\20170322-24401.b\522_MOD_Z.m
Limit Group: SV_522_Limits
Last Update: 23-Mar-2017 09:10:42 Calib Date: 08-Mar-2017 12:03:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\CHZ.i\20170308-24230.b\Z24230_08.D

Column 1 : Rxi-5ms (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: bourdeaut Date: 23-Mar-2017 08:16:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 Tetrahydrofuran-d8	46	3.252	3.246	0.006	85	280351	0.5000	
$ 2 1,4-Dioxane-d8 (Surr)	64	4.168	4.163	0.005	99	30509	0.0901	
3 1,4-Dioxane	58	4.210	4.204	0.006	90	35447	0.1012	
$ 4 BFB								

Reagents:

SV522ISi_00032 Amount Added: 4.00 Units: uL Run Reagent

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-76678-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

SAMPLE CALCULATION - OVG	WATER
SAMPLE IDENTIFICATION	MRC-MW60B-031317
COMPOUND	Methane
COMPOUND AREA	1029394
AVERAGE RRF	15344.897
1029394 x 1 / 15344.897	67.1 ug/L

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW60B-031317 Lab Sample ID: 240-76678-4

Lab Name: TestAmerica Canton Job No.: 240-76678-1

SDG ID.:

Matrix: Water Date Sampled: 03/13/2017 13:46

Reporting Basis: WET Date Received: 03/14/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	3400	5000	710	ug/L	J		1	6010C
7440-09-7	Potassium	2900	5000	70	ug/L	J		1	6010C
7439-95-4	Magnesium	5200	5000	230	ug/L			1	6010C
7440-23-5	Sodium	11000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	10000	4300	560	ug/L			4	6010C
7440-36-0	Antimony	0.59	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	0.49	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	61	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.44	1.0	0.40	ug/L	J		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	41	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.29	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.36	2.0	0.36	ug/L	U		1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	71	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	0.37	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.63	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	120	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

Sample Name: 240-76678-p-4-a Acquired: 3/16/2017 16:07:33 Type: Unk
Method: ICP I12 6010 200.7 Methods(v113) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.16470	77.788	-.35909	5.6427	60.813	.08747	3407.2	-.1014
Stddev	.08752	3.351	2.6108	.8998	.246	.09421	20.2	.0778
%RSD	53.141	4.3073	727.06	15.945	.40483	107.71	.59168	76.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	38.375	-.47239	.28044	19190.	2941.8	42.168	5201.7	2064.6
Stddev	.432	.15866	.25647	119.	7.4	.929	61.3	4.9
%RSD	1.1251	33.587	91.452	.61946	.25302	2.2032	1.1788	.23703
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.29127	11439.	67.088	.16851	4.566	.56836	.10797	-1.8252
Stddev	.44863	57.	.331	1.2454	1.514	2.4656	.17026	.3038
%RSD	154.02	.49483	.49368	739.02	33.16	433.82	157.70	16.646
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **APRIL 27, 2017**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – VOC / 1,4-DIOXANE / DISSOLVED GASES / PCB HOMOLOGS / SELECT METALS / MISCELLANEOUS PARAMETERS**
MRC GROUNDWATER – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-76810-1

SAMPLES: 6 / Water / VOC

MRC-MW34B-031517	MRC-MW34C-031517	MRC-MW43A-031517*
MRC-MW62A-031517*	MRC-MW62C-031517*	TB-031517

2 /Water / 1,4-Dioxane

MRC-MW34B-031517 MRC-MW34C-031517

1 / Water / Dissolved Gases / Select Metals / Miscellaneous Parameters

MRC-MW34B-031517

3 /Water / PCB Homologs

MRC-MW43A-031517 MRC-MW62A-031517 MRC-MW62C-031517

*Sample was analyzed for chlorinated benzenes only.

OVERVIEW

The sample set for MRC GW, SDG 240-76810-1, consists of five (5) groundwater environmental samples and one (1) trip blank. Samples were analyzed for volatile organic compounds (VOC), 1,4-dioxane, dissolved gases, polychlorinated biphenyl (PCB) homologs, select metals, and miscellaneous parameters. No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on March 15, 2017 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Methods 8260C (for VOC), 6010C (for metals), and 9060 (for dissolved organic carbon) as well as EPA Method 522 (for 1,4-dioxane), Method RSK-175 (for dissolved gases), EPA Method 680 (for PCB homologs), Standard Methods 2320B-1997 (for alkalinity), 4500 PE (for orthophosphate), and 2540C (for total dissolved solids), and MCAWW Methods 300.0 (for anions) and 350.2 (for nitrogen, ammonia) analysis and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard areas and recoveries, analyte identification, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- Detected results below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Non-detected results were reported to the MDL.

The laboratory case narrative report indicates that a VOC matrix spike (MS)/matrix spike duplicate (MSD) sample was not analyzed in batch 271291 due to an instrument malfunction. No validation action was necessary.

VOCs in sample MRC-MW43A-031517 were analyzed at a dilution factor of 250.

Chloride was analyzed at a dilution factor of 5 in sample MRC-MW34B-031517.

The following analyte was detected in the VOC method/trip blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Methylene chloride	1.17 ug/L(1)	11.7 ug/L
Methylene chloride	0.83 ug/L(2)	8.3 ug/L

1 – Maximum concentration detected in method blank associated with preparation batch 271291 affecting samples MRC-MW34B-031517, MRC-MW34C-031517, and TB-031517.
2 – Maximum concentration detected in trip blank TB-031517 affecting all VOC samples.

Action levels of 10x the maximum concentrations of the common laboratory contaminant methylene chloride were used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were considered in evaluating for blank contamination. No action was necessary, as results for methylene chloride were non-detected in the affected environmental samples and trip blank results are not qualified for blank contamination.

The laboratory case narrative report for the dissolved gases fraction indicates that a MS/MSD for batch 240-271163 was not analyzed due to insufficient sample volume. No validation action was necessary.

For the metals sample, the calibration percent recoveries (%Rs) were less than the than the 90-110% quality control range for silicon dioxide in the initial and continuing calibrations analyzed on 03/21/17 at 09:22 and 12:05, respectively. No action was necessary because the environmental sample from this SDG was not associated with these calibrations.

In the miscellaneous parameters fraction, sulfate was detected in the initial calibration blank analyzed on 11/24/16 at 12:33. No action was necessary because the environmental sample in this SDG was not affected by this calibration blank.

The following analyte was detected in the metals calibration blank at the following maximum concentration:

Analyte	Maximum Concentration	RL (< or >)
Potassium	416 ug/L(1)	< RL

1 – Maximum concentration detected in calibration blanks analyzed on 03/21/17 at 10:17 and 11:44 affecting sample MRC-MW34B-031517.

No action was necessary, as the detected result for potassium in sample MRC-MW34B-031517 was greater than the action level.

For the metals fraction, the MS performed on sample 190-13000-A-1-B (laboratory identification) and the MSD performed on sample 190-13000-A-1-C (laboratory identification) had %Rs that were greater than the laboratory quality control limits for silicon dioxide. Additionally, the post digestion spike (PDS) associated with this MS/MSD had a %R for silicon dioxide that was greater than the quality control limits. No action was necessary because the MS/MSD and PDS were not performed on samples from this SDG.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Detected results below RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Superfund Organic Methods Data Review" (January 2017) and "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Leigh A. Ciofani

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-MW34B-031517			MRC-MW34C-031517			MRC-MW43A-031517			MRC-MW62A-031517		
SDG: 240-76810-1	LAB_ID	240-76810-2			240-76810-3			240-76810-5			240-76810-4		
FRACTION: OV	SAMP_DATE	3/15/2017			3/15/2017			3/15/2017			3/15/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U							
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U							
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U							
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U							
1,1-DICHLOROETHANE		0.68	J	P	0.25	U							
1,1-DICHLOROETHENE		0.27	U		0.27	U							
1,2,3-TRICHLOROBENZENE								1300			1.4		
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		5300			6		
1,2,4-TRIMETHYLBENZENE		0.24	U		0.24	U							
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U							
1,2-DIBROMOETHANE		0.23	U		0.23	U							
1,2-DICHLOROBENZENE		0.26	U		0.26	U		310			0.58	J	P
1,2-DICHLOROETHANE		0.3	U		0.3	U							
1,2-DICHLOROPROPANE		0.3	U		0.3	U							
1,3,5-TRICHLOROBENZENE								83	U		0.33	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		80	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		350			0.94	J	P
2-BUTANONE		1	U		1	U							
2-HEXANONE		1.2	U		1.2	U							
4-METHYL-2-PENTANONE		0.71	U		0.71	U							
ACETONE		1.8	U		1.8	U							
BENZENE		0.28	U		0.28	U							
BROMODICHLOROMETHANE		0.3	U		0.3	U							
BROMOFORM		0.43	U		0.43	U							
BROMOMETHANE		0.42	U		0.42	U							
CARBON DISULFIDE		0.34	U		0.34	U							
CARBON TETRACHLORIDE		3.9			0.35	U							
CHLOROBENZENE		0.32	U		0.32	U		80	U		0.5	J	P
CHLORODIBROMOMETHANE		0.25	U		0.25	U							
CHLOROETHANE		0.41	U		0.41	U							
CHLOROFORM		1.4			0.31	U							
CHLOROMETHANE		0.43	U		0.43	U							
CIS-1,2-DICHLOROETHENE		13			0.3	U							
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U							
CYCLOHEXANE		0.44	U		0.44	U							

PROJ_NO: 07776	NSAMPLE	MRC-MW62C-031517			TB-031517		
SDG: 240-76810-1	LAB_ID	240-76810-6			240-76810-1		
FRACTION: OV	SAMP_DATE	3/15/2017			3/15/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					0.23	U	
1,1,2,2-TETRACHLOROETHANE					0.32	U	
1,1,2-TRICHLOROETHANE					0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE					0.41	U	
1,1-DICHLOROETHANE					0.25	U	
1,1-DICHLOROETHENE					0.27	U	
1,2,3-TRICHLOROBENZENE		0.35	U				
1,2,4-TRICHLOROBENZENE		0.58	J	P	0.27	U	
1,2,4-TRIMETHYLBENZENE					0.24	U	
1,2-DIBROMO-3-CHLOROPROPANE					0.47	U	
1,2-DIBROMOETHANE					0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U	
1,2-DICHLOROETHANE					0.3	U	
1,2-DICHLOROPROPANE					0.3	U	
1,3,5-TRICHLOROBENZENE		0.33	U				
1,3-DICHLOROBENZENE		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U	
2-BUTANONE					1	U	
2-HEXANONE					1.2	U	
4-METHYL-2-PENTANONE					0.71	U	
ACETONE					1.8	U	
BENZENE					0.28	U	
BROMODICHLOROMETHANE					0.3	U	
BROMOFORM					0.43	U	
BROMOMETHANE					0.42	U	
CARBON DISULFIDE					0.34	U	
CARBON TETRACHLORIDE					0.35	U	
CHLOROBENZENE		0.32	U		0.32	U	
CHLORODIBROMOMETHANE					0.25	U	
CHLOROETHANE					0.41	U	
CHLOROFORM					0.31	U	
CHLOROMETHANE					0.43	U	
CIS-1,2-DICHLOROETHENE					0.3	U	
CIS-1,3-DICHLOROPROPENE					0.26	U	
CYCLOHEXANE					0.44	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW34B-031517			MRC-MW34C-031517			MRC-MW43A-031517			MRC-MW62A-031517		
SDG: 240-76810-1	LAB_ID	240-76810-2			240-76810-3			240-76810-5			240-76810-4		
FRACTION: OV	SAMP_DATE	3/15/2017			3/15/2017			3/15/2017			3/15/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U							
ETHYLBENZENE		0.26	U		0.26	U							
ISOPROPYLBENZENE		0.21	U		0.21	U							
METHYL ACETATE		1.4	U		1.4	U							
METHYL CYCLOHEXANE		0.45	U		0.45	U							
METHYL TERT-BUTYL ETHER		23			0.27	U							
METHYLENE CHLORIDE		0.53	U		0.53	U							
STYRENE		0.23	U		0.23	U							
TETRACHLOROETHENE		0.3	U		0.3	U							
TOLUENE		0.23	U		0.23	U							
TOTAL XYLENES		0.24	U		0.24	U							
TRANS-1,2-DICHLOROETHENE		0.8	J	P	0.29	U							
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U							
TRICHLOROETHENE		14			0.33	U							
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U							
VINYL CHLORIDE		1.5			0.45	U							

PROJ_NO: 07776	NSAMPLE	MRC-MW62C-031517			TB-031517		
SDG: 240-76810-1	LAB_ID	240-76810-6			240-76810-1		
FRACTION: OV	SAMP_DATE	3/15/2017			3/15/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE					0.5	U	
ETHYLBENZENE					0.26	U	
ISOPROPYLBENZENE					0.21	U	
METHYL ACETATE					1.4	U	
METHYL CYCLOHEXANE					0.45	U	
METHYL TERT-BUTYL ETHER					0.27	U	
METHYLENE CHLORIDE					0.83	J	P
STYRENE					0.23	U	
TETRACHLOROETHENE					0.3	U	
TOLUENE					0.23	U	
TOTAL XYLENES					0.24	U	
TRANS-1,2-DICHLOROETHENE					0.29	U	
TRANS-1,3-DICHLOROPROPENE					0.31	U	
TRICHLOROETHENE					0.33	U	
TRICHLOROFLUOROMETHANE					0.5	U	
VINYL CHLORIDE					0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW34B-031517			MRC-MW34C-031517		
SDG: 240-76810-1	LAB_ID	240-76810-2			240-76810-3		
FRACTION: OS	SAMP_DATE	3/15/2017			3/15/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.45			0.057	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW34B-031517		
SDG: 240-76810-1	LAB_ID	240-76810-2		
FRACTION: OVG	SAMP_DATE	3/15/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ETHANE		0.14	U	
ETHENE		0.13	U	
METHANE		24		

PROJ_NO: 07776	NSAMPLE	MRC-MW43A-031517			MRC-MW62A-031517			MRC-MW62C-031517		
SDG: 240-76810-1	LAB_ID	240-76810-5			240-76810-4			240-76810-6		
FRACTION: PCB	SAMP_DATE	3/15/2017			3/15/2017			3/15/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		0.07	U		0.069	U		0.069	U	
DICHLOROBIPHENYLS		0.061	J	P	0.0053	U		0.0053	U	
HEPTACHLOROBIPHENYLS		0.03	U		0.03	U		0.03	U	
HEXACHLOROBIPHENYLS		0.023	J	P	0.015	U		0.015	U	
MONOCHLOROBIPHENYLS		0.26			0.0055	U		0.0055	U	
NONACHLOROBIPHENYLS		0.049	U		0.048	U		0.048	U	
OCTACHLOROBIPHENYLS		0.038	U		0.037	U		0.038	U	
PENTACHLOROBIPHENYLS		0.2			0.014	U		0.014	U	
TETRACHLOROBIPHENYLS		0.05	J	P	0.013	U		0.013	U	
TRICHLOROBIPHENYLS		0.007	J	P	0.0064	U		0.0064	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW34B-031517		
SDG: 240-76810-1	LAB_ID	240-76810-2		
FRACTION: M	SAMP_DATE	3/15/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CALCIUM		16000		
MAGNESIUM		13000		
POTASSIUM		7500		
SILICON DIOXIDE		9300		
SODIUM		83000		

PROJ_NO: 07776	NSAMPLE	MRC-MW34B-031517		
SDG: 240-76810-1	LAB_ID	240-76810-2		
FRACTION: MISC	SAMP_DATE	3/15/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ALKALINITY		1.9	U	
AMMONIA-N		0.87	U	
CHLORIDE		200		
DISSOLVED ORGANIC CARBON		1.2		
NITRATE-N		0.14		
NITRITE-N		0.038	U	
ORTHOPHOSPHATE-P		0.03	J	P
SULFATE		18		
TOTAL DISSOLVED SOLIDS		360		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW34B-031517 | Lab Sample ID: 240-76810-2

Matrix: Water | Lab File ID: UXM1315.D

Analysis Method: 8260C | Date Collected: 03/15/2017 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 14:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
71-43-2	Benzene	0.28	U	1.0	0.28
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
75-25-2	Bromoform	0.43	U	1.0	0.43
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
75-34-3	1,1-Dichloroethane	0.68	J	1.0	0.25
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
67-64-1	Acetone	1.8	U	10	1.8
79-20-9	Methyl acetate	1.4	U	10	1.4
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
74-87-3	Chloromethane	0.43	U	1.0	0.43
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
74-83-9	Bromomethane	0.42	U	1.0	0.42
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
108-88-3	Toluene	0.23	U	1.0	0.23
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
1634-04-4	Methyl tert-butyl ether	23		1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.80	J	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
79-01-6	Trichloroethene	14		1.0	0.33
591-78-6	2-Hexanone	1.2	U	10	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW34B-031517 | Lab Sample ID: 240-76810-2

Matrix: Water | Lab File ID: UXM1315.D

Analysis Method: 8260C | Date Collected: 03/15/2017 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 14:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
110-82-7	Cyclohexane	0.44	U	1.0	0.44
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	13		1.0	0.30
67-66-3	Chloroform	1.4		1.0	0.31
75-01-4	Vinyl chloride	1.5		1.0	0.45
56-23-5	Carbon tetrachloride	3.9		1.0	0.35
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-124
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	103		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW34C-031517 | Lab Sample ID: 240-76810-3

Matrix: Water | Lab File ID: UXM1316.D

Analysis Method: 8260C | Date Collected: 03/15/2017 10:04

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 14:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
71-43-2	Benzene	0.28	U	1.0	0.28
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
75-25-2	Bromoform	0.43	U	1.0	0.43
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
67-64-1	Acetone	1.8	U	10	1.8
79-20-9	Methyl acetate	1.4	U	10	1.4
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
74-87-3	Chloromethane	0.43	U	1.0	0.43
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
74-83-9	Bromomethane	0.42	U	1.0	0.42
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
108-88-3	Toluene	0.23	U	1.0	0.23
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
79-01-6	Trichloroethene	0.33	U	1.0	0.33
591-78-6	2-Hexanone	1.2	U	10	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW34C-031517 | Lab Sample ID: 240-76810-3

Matrix: Water | Lab File ID: UXM1316.D

Analysis Method: 8260C | Date Collected: 03/15/2017 10:04

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 14:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
110-82-7	Cyclohexane	0.44	U	1.0	0.44
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
67-66-3	Chloroform	0.31	U	1.0	0.31
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	106		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW43A-031517 | Lab Sample ID: 240-76810-5

Matrix: Water | Lab File ID: UXM1318.D

Analysis Method: 8260C | Date Collected: 03/15/2017 13:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 15:15

Soil Aliquot Vol: | Dilution Factor: 250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
87-61-6	1,2,3-Trichlorobenzene	1300		250	88
120-82-1	1,2,4-Trichlorobenzene	5300		250	68
95-50-1	1,2-Dichlorobenzene	310		250	65
108-70-3	1,3,5-Trichlorobenzene	83	U	250	83
541-73-1	1,3-Dichlorobenzene	80	U	250	80
106-46-7	1,4-Dichlorobenzene	350		250	58
108-90-7	Chlorobenzene	80	U	250	80

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-124
1868-53-7	Dibromofluoromethane (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	107		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW62A-031517 | Lab Sample ID: 240-76810-4

Matrix: Water | Lab File ID: UXM1317.D

Analysis Method: 8260C | Date Collected: 03/15/2017 11:33

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 14:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
87-61-6	1,2,3-Trichlorobenzene	1.4		1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	6.0		1.0	0.27
95-50-1	1,2-Dichlorobenzene	0.58	J	1.0	0.26
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.94	J	1.0	0.23
108-90-7	Chlorobenzene	0.50	J	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-124
1868-53-7	Dibromofluoromethane (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	112		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW62C-031517 | Lab Sample ID: 240-76810-6

Matrix: Water | Lab File ID: UXM1319.D

Analysis Method: 8260C | Date Collected: 03/15/2017 14:42

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 15:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	0.58	J	1.0	0.27
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
108-90-7	Chlorobenzene	0.32	U	1.0	0.32

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-124
1868-53-7	Dibromofluoromethane (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	104		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: TB-031517 | Lab Sample ID: 240-76810-1

Matrix: Water | Lab File ID: UXM1314.D

Analysis Method: 8260C | Date Collected: 03/15/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 13:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
71-43-2	Benzene	0.28	U	1.0	0.28
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
75-25-2	Bromoform	0.43	U	1.0	0.43
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
67-64-1	Acetone	1.8	U	10	1.8
79-20-9	Methyl acetate	1.4	U	10	1.4
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
75-09-2	Methylene Chloride	0.83	J B	1.0	0.53
74-87-3	Chloromethane	0.43	U	1.0	0.43
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
74-83-9	Bromomethane	0.42	U	1.0	0.42
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
108-88-3	Toluene	0.23	U	1.0	0.23
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
79-01-6	Trichloroethene	0.33	U	1.0	0.33
591-78-6	2-Hexanone	1.2	U	10	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: TB-031517 | Lab Sample ID: 240-76810-1

Matrix: Water | Lab File ID: UXM1314.D

Analysis Method: 8260C | Date Collected: 03/15/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 13:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
110-82-7	Cyclohexane	0.44	U	1.0	0.44
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
67-66-3	Chloroform	0.31	U	1.0	0.31
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-124
1868-53-7	Dibromofluoromethane (Surr)	109		80-120
460-00-4	4-Bromofluorobenzene (Surr)	108		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		63-132

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW34B-031517 | Lab Sample ID: 240-76810-2

Matrix: Water | Lab File ID: Z24401_11.D

Analysis Method: 522 | Date Collected: 03/15/2017 08:35

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 17:48

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.45		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	99		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW34C-031517 | Lab Sample ID: 240-76810-3

Matrix: Water | Lab File ID: Z24401_12.D

Analysis Method: 522 | Date Collected: 03/15/2017 10:04

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 18:05

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	103		46-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW34B-031517 Lab Sample ID: 240-76810-2

Matrix: Water Lab File ID: RSK0320007.D

Analysis Method: RSK-175 Date Collected: 03/15/2017 08:35

Sample wt/vol: 33(mL) Date Analyzed: 03/20/2017 14:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 271163 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-85-1	Ethene	0.13	U	0.50	0.13
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	24		0.50	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	88		76-121

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW43A-031517 | Lab Sample ID: 240-76810-5

Matrix: Water | Lab File ID: xc2710.D

Analysis Method: 680 | Date Collected: 03/15/2017 13:00

Extract. Method: 680 | Date Extracted: 03/21/2017 13:57

Sample wt/vol: 1002.3(mL) | Date Analyzed: 03/27/2017 19:14

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 473797 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.023	J	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.26		0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.061	J	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.20		0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.050	J	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0070	J	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	85		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW62A-031517 | Lab Sample ID: 240-76810-4

Matrix: Water | Lab File ID: xc2709.D

Analysis Method: 680 | Date Collected: 03/15/2017 11:33

Extract. Method: 680 | Date Extracted: 03/21/2017 13:57

Sample wt/vol: 1015.5(mL) | Date Analyzed: 03/27/2017 18:45

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 473797 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.048	U	0.49	0.048
55722-26-4	Octachlorobiphenyl	0.037	U	0.30	0.037
27323-18-8	Monochlorobiphenyl	0.0055	U	0.098	0.0055
2051-24-3	DCB Decachlorobiphenyl	0.069	U	0.49	0.069
25512-42-9	Dichlorobiphenyl	0.0053	U	0.098	0.0053
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0064	U	0.098	0.0064

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	75		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW62C-031517 | Lab Sample ID: 240-76810-6

Matrix: Water | Lab File ID: xc2711.D

Analysis Method: 680 | Date Collected: 03/15/2017 14:42

Extract. Method: 680 | Date Extracted: 03/21/2017 13:57

Sample wt/vol: 1010.5(mL) | Date Analyzed: 03/27/2017 19:42

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 473797 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.048	U	0.49	0.048
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0055	U	0.099	0.0055
2051-24-3	DCB Decachlorobiphenyl	0.069	U	0.49	0.069
25512-42-9	Dichlorobiphenyl	0.0053	U	0.099	0.0053
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0064	U	0.099	0.0064

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	88		25-113

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW34B-031517 Lab Sample ID: 240-76810-2

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG ID.:

Matrix: Water Date Sampled: 03/15/2017 08:35

Reporting Basis: WET Date Received: 03/16/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	16000	5000	710	ug/L			1	6010C
7440-09-7	Potassium	7500	5000	70	ug/L			1	6010C
7439-95-4	Magnesium	13000	5000	230	ug/L			1	6010C
7440-23-5	Sodium	83000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	9300	1100	140	ug/L			1	6010C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW34B-031517 Lab Sample ID: 240-76810-2

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG ID.:

Matrix: Water Date Sampled: 03/15/2017 08:35

Reporting Basis: WET Date Received: 03/16/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Alkalinity	1.9	5.0	1.9	mg/L	U		1	2320B-1997
16887-00-6	Chloride	200	5.0	2.0	mg/L			5	300.0
14797-65-0	Nitrite as N	0.038	0.10	0.038	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.14	0.10	0.035	mg/L			1	300.0
14808-79-8	Sulfate	18	1.0	0.13	mg/L			1	300.0
7664-41-7	Ammonia (as N)	0.87	2.0	0.87	mg/L	U		1	350.2
	Total Dissolved Solids	360	10	7.4	mg/L			1	SM 2540C
	Orthophosphate as P	0.030	0.10	0.0050	mg/L	J		1	SM 4500 P E

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW34B-031517 Lab Sample ID: 240-76810-2

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG ID.:

Matrix: Water Date Sampled: 03/15/2017 08:35

Reporting Basis: WET Date Received: 03/16/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	1.2	1.0	0.080	mg/L			1	9060

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-76810-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 522 1,4-Dioxane analysis was performed at the TestAmerica Burlington Laboratory. The 680 Polychlorinated Biphenyls analysis was performed at the TestAmerica Savannah Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 3/16/2017 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.3º C and 2.5º C.

1,4-DIOXANE
Samples MRC-MW34B-031517 (240-76810-2) and MRC-MW34C-031517 (240-76810-3) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 03/20/2017 and analyzed on 03/22/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples TB-031517 (240-76810-1), MRC-MW34B-031517 (240-76810-2), MRC-MW34C-031517 (240-76810-3), MRC-MW62A-031517 (240-76810-4), MRC-MW43A-031517 (240-76810-5) and MRC-MW62C-031517 (240-76810-6) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/21/2017.

Sample MRC-MW43A-031517 (240-76810-5)[250X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The MS/MSD for batch 271291 was not analyzed due to an instrument malfunction. Batch included: TB-031517 (240-76810-1), MRC-MW34B-031517 (240-76810-2), MRC-MW34C-031517 (240-76810-3), MRC-MW62A-031517 (240-76810-4), MRC-MW43A-031517 (240-76810-5) and MRC-MW62C-031517 (240-76810-6)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED GASES
Sample MRC-MW34B-031517 (240-76810-2) was analyzed for dissolved gases in accordance with RSK_175. The sample was analyzed on 03/20/2017.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-271163.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)
Samples MRC-MW62A-031517 (240-76810-4), MRC-MW43A-031517 (240-76810-5) and MRC-MW62C-031517 (240-76810-6) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 03/21/2017 and analyzed on 03/27/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)
Sample MRC-MW34B-031517 (240-76810-2) was analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 03/20/2017 and analyzed on 03/21/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY
Sample MRC-MW34B-031517 (240-76810-2) was analyzed for alkalinity in accordance with SM 2320B. The sample was analyzed on 03/23/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS
Sample MRC-MW34B-031517 (240-76810-2) was analyzed for total dissolved solids in accordance with SM 2540C. The sample was analyzed on 03/22/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS
Sample MRC-MW34B-031517 (240-76810-2) was analyzed for anions in accordance with EPA Method 300.0. The sample was analyzed on 03/16/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS
Sample MRC-MW34B-031517 (240-76810-2) was analyzed for anions in accordance with EPA Method 300.0. The sample was analyzed on 03/16/2017 and 03/17/2017.

Sample MRC-MW34B-031517 (240-76810-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA
Sample MRC-MW34B-031517 (240-76810-2) was analyzed for ammonia in accordance with EPA Method 350.2. The sample was prepared and analyzed on 03/22/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ORTHOPHOSPHATE AS P
Sample MRC-MW34B-031517 (240-76810-2) was analyzed for orthophosphate as P in accordance with SM 4500 P E. The sample was analyzed on 03/16/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED ORGANIC CARBON
Sample MRC-MW34B-031517 (240-76810-2) was analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The sample was analyzed on 03/21/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76810-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
680	Polychlorinated Biphenyls (PCBs) (GC/MS)	EPA	TAL SAV
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
350.2	Nitrogen, Ammonia, Distillation	MCAWW	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN
SM 4500 P E	Orthophosphate	SM	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76810-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-76810-1	TB-031517	Water	03/15/17 00:00	03/16/17 10:00
240-76810-2	MRC-MW34B-031517	Water	03/15/17 08:35	03/16/17 10:00
240-76810-3	MRC-MW34C-031517	Water	03/15/17 10:04	03/16/17 10:00
240-76810-4	MRC-MW62A-031517	Water	03/15/17 11:33	03/16/17 10:00
240-76810-5	MRC-MW43A-031517	Water	03/15/17 13:00	03/16/17 10:00
240-76810-6	MRC-MW62C-031517	Water	03/15/17 14:42	03/16/17 10:00

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

2.8/C2.5
1.6/C1.3

Chain of Custody Record

180325

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Payon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.1
Client Contact: Mr. Stuart Cameron	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3022	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Middle River Center	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (meth 522)	PCBs Homo and Benzene (625, 8260C)	MEE RSK-175	DOC (9060)	Total sekat metals (6010C)	Alkalinity (2320B)	Ammonia (SM4500NH3)	Anions - NO2, NO3 (300)	Anions - SO4 (300.1&2)	Calcd - Total Diss (2540C)	PE Ortho (4500)	Total Number of containers	Special Instructions/Note:
				Preservation Code:			A													
TB-031517	3/15/17	—	G	Water			2													
MRC-MW34B-031517		0835		Water			3	2	-	3	3	1	1	1	→	→	→	→		
MRC-MW34C-031517		1004		Water			3	2	-	-	-	-	-	-	-	-	-	-		
MRC-MW62A-031517		1133		Water			3	-	2	-	-	-	-	-	-	-	-	-		
MRC-MW43A-031517		1300		Water			3	-	2	-	-	-	-	-	-	-	-	-		
MRC-MW62C-031517		1442		Water			3	-	2	-	-	-	-	-	-	-	-	-		
				Water																
				Water																
				Water																
				Water																
				Water																

240-76810 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Payon	3/15/17 1500	TT INC	Dalice A Carter	3/15/17 1500	TA
Relinquished by: Dalice Carter	Date/Time: 3/15/17 1647	Company TA	Received by:	Date/Time: 03/16/17 1000	Company TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 76810
Canton Facility

Client Tetra Tech Site Name MRC 2017 GW Cooler unpacked by: DsO

Cooler Received on 03/16/17 Opened on 03/16/17

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: (Bubble Wrap) Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 each (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? (Yes) No
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Are these work share samples? Yes (No)

If yes, Questions 11-15 have been checked at the originating laboratory.

11. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? (Yes) No
13. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # B630301VB (Yes) No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes (No)

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # :** 76810

Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	8	2.4	2.5	Ice
↓	↓	1.6	1.3	↓

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW34B-031517	240-76810-K-2	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MRC-MW34B-031517	240-76810-L-2	Amber Glass 250mL - hydrochloric	_____	_____	_____
MRC-MW34B-031517	240-76810-M-2	Amber Glass 250mL - hydrochloric	_____	_____	_____
MRC-MW34B-031517	240-76810-O-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MRC-MW34C-031517	240-76810-D-3	Amber Glass 250mL - hydrochloric	_____	_____	_____
MRC-MW34C-031517	240-76810-E-3	Amber Glass 250mL - hydrochloric	_____	_____	_____

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab File ID: BFB5159.D BFB Injection Date: 02/08/2017

Instrument ID: A3UX16 BFB Injection Time: 10:47

Analysis Batch No.: 265930

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.1	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.8) 1
174	50.0 - 120.00 % of mass 95	72.1	
175	5.0 - 9.0 % of mass 174	5.1	(7.1) 1
176	95.0 - 101.0 % of mass 174	70.6	(97.9) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-265930/8	UXM0695.D	02/08/2017	11:17
	STD8260 240-265930/9	UXM0696.D	02/08/2017	11:40
	STD8260 240-265930/10	UXM0697.D	02/08/2017	12:04
	ICIS 240-265930/11	UXM0698.D	02/08/2017	12:27
	STD8260 240-265930/12	UXM0699.D	02/08/2017	12:57
	STD8260 240-265930/13	UXM0700.D	02/08/2017	13:20
	STDA9 240-265930/15	UXM0702.D	02/08/2017	14:06
	STDA9 240-265930/16	UXM0703.D	02/08/2017	14:29
	STDA9 240-265930/17	UXM0704.D	02/08/2017	14:53
	STDA9 240-265930/18	UXM0705.D	02/08/2017	15:16
	STDA9 240-265930/19	UXM0706.D	02/08/2017	15:39
	STDA9 240-265930/20	UXM0707.D	02/08/2017	16:03
	ICV 240-265930/23	UXM0710.D	02/08/2017	17:12

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-265930/8	UXM0695.D
Level 2	STD8260 240-265930/9	UXM0696.D
Level 3	STD8260 240-265930/10	UXM0697.D
Level 4	ICIS 240-265930/11	UXM0698.D
Level 5	STD8260 240-265930/12	UXM0699.D
Level 6	STD8260 240-265930/13	UXM0700.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1648 0.2371	0.1692	0.2445	0.2601	0.2654	Lin1	-0.052	0.2514			0.1000				0.9970		0.9900
Chloromethane	0.4176 0.3938	0.3642	0.3776	0.3900	0.4257	Ave		0.3948			0.1000	5.9		20.0			
Vinyl chloride	0.3830 0.3750	0.3080	0.3686	0.3646	0.4142	Ave		0.3689			0.1000	9.4		20.0			
Butadiene	0.3484 0.3252	0.2381	0.3291	0.3238	0.3641	Ave		0.3214				13.6		20.0			
Bromomethane	0.1794 0.1963	0.1680	0.1933	0.1981	0.2210	Ave		0.1927			0.0500	9.4		20.0			
Chloroethane	0.2453 0.2306	0.1810	0.2149	0.2223	0.2522	Ave		0.2244			0.0500	11.3		20.0			
Dichlorofluoromethane	0.5077 0.5236	0.4527	0.5011	0.5103	0.5663	Ave		0.5103				7.2		20.0			
Trichlorofluoromethane	0.2007 0.3322	0.2156	0.3366	0.3398	0.3782	Lin1	-0.094	0.3506			0.1000				0.9960		0.9900
Ethyl ether	0.2121 0.2339	0.2161	0.2095	0.2328	0.2556	Ave		0.2267				7.8		20.0			
Acrolein	0.0441 0.0375	0.0415	0.0358	0.0369	0.0416	Ave		0.0396				8.3		20.0			
1,1-Dichloroethene	0.2886 0.2619	0.2156	0.2493	0.2670	0.2859	Ave		0.2614			0.1000	10.3		20.0			
Acetone	+++++ 0.0698	0.0989	0.0759	0.0856	0.0890	Ave		0.0838			0.0100	13.6		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1206 0.1526	0.1262	0.1451	0.1655	0.1714	Ave		0.1469			0.0500	14.0		20.0			
Iodomethane	0.4284 0.4153	0.3437	0.3824	0.4244	0.4536	Ave		0.4080				9.6		20.0			
Carbon disulfide	+++++ 0.9426	0.8293	0.8744	0.9656	1.0423	Ave		0.9308			0.1000	8.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2014 0.2040	0.1555	0.1808	0.2002	0.2159	Ave		0.1930				11.2		20.0			
Methyl acetate	0.1928 0.1423	0.1613	0.1385	0.1524	0.1649	Ave		0.1587			0.1000	12.4		20.0			
Methylene Chloride	+++++ 0.3066	0.9852	0.3287	0.3276	0.3246	Lin1	0.6613	0.2969			0.1000				0.9980		0.9900
2-Methyl-2-propanol	0.0194 0.0160	0.0174	0.0155	0.0179	0.0188	Ave		0.0175				8.8		20.0			
Acrylonitrile	0.0787 0.0773	0.0707	0.0707	0.0792	0.0881	Ave		0.0774				8.3		20.0			
trans-1,2-Dichloroethene	0.3908 0.3021	0.2608	0.2594	0.3017	0.3136	Ave		0.3047			0.1000	15.7		20.0			
Methyl tert-butyl ether	0.6950 0.7470	0.6660	0.6579	0.7653	0.8048	Ave		0.7227			0.1000	8.1		20.0			
Hexane	0.3470 0.2380	0.2502	0.2515	0.2654	0.2531	Ave		0.2675				14.9		20.0			
1,1-Dichloroethane	0.5289 0.5356	0.4351	0.4707	0.5253	0.5533	Ave		0.5082			0.2000	8.9		20.0			
Vinyl acetate	0.4775 0.4322	0.4393	0.4025	0.4356	0.4609	Ave		0.4413				5.8		20.0			
cis-1,2-Dichloroethene	0.3839 0.3315	0.2759	0.2961	0.3258	0.3367	Ave		0.3250			0.1000	11.4		20.0			
2,2-Dichloropropane	0.2956 0.3630	0.3145	0.3454	0.3747	0.3844	Ave		0.3463				10.1		20.0			
2-Butanone (MEK)	0.1259 0.0860	0.1104	0.0861	0.0928	0.0999	Ave		0.1002			0.0100	15.6		20.0			
Chlorobromomethane	0.1378 0.1414	0.1098	0.1231	0.1370	0.1441	Ave		0.1322				9.9		20.0			
Tetrahydrofuran	0.0884 0.0544	0.0672	0.0515	0.0554	0.0618	Lin1	0.0260	0.0562							0.9950		0.9900
Chloroform	0.4736 0.4816	0.4116	0.4242	0.4731	0.4849	Ave		0.4582			0.2000	6.9		20.0			
1,1,1-Trichloroethane	0.3228 0.3986	0.3088	0.3648	0.3873	0.4126	Ave		0.3658			0.1000	11.5		20.0			
Cyclohexane	0.3822 0.4251	0.3558	0.3911	0.4304	0.4532	Ave		0.4063			0.1000	8.9		20.0			
1,1-Dichloropropene	0.3968 0.3935	0.3258	0.3630	0.3843	0.4157	Ave		0.3799				8.3		20.0			
Carbon tetrachloride	0.2740 0.3322	0.2705	0.2967	0.3240	0.3502	Ave		0.3079			0.1000	10.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0068 0.0054	0.0053	0.0051	0.0060	0.0064	Ave		0.0058				11.4		20.0			
Benzene	1.1322 1.1868	0.9742	1.0448	1.1522	1.2464	Ave		1.1228			0.5000	8.8		20.0			
1,2-Dichloroethane	0.3413 0.3337	0.3076	0.2973	0.3297	0.3608	Ave		0.3284			0.1000	7.0		20.0			
n-Heptane	+++++ 0.1058	0.7533	0.1688	0.1330	0.1264	Lin1	0.6568	0.1009							0.9950		0.9900
Trichloroethene	0.3387 0.2898	0.2398	0.2535	0.2790	0.3046	Ave		0.2843			0.1500	12.5		20.0			
Methylcyclohexane	0.3152 0.3343	0.2967	0.3159	0.3386	0.3619	Ave		0.3271			0.1000	7.0		20.0			
1,2-Dichloropropane	0.2673 0.2805	0.2220	0.2480	0.2729	0.2960	Ave		0.2644			0.1000	9.9		20.0			
Dibromomethane	0.1495 0.1371	0.1148	0.1226	0.1335	0.1522	Ave		0.1350				10.9		20.0			
1,4-Dioxane	+++++ 0.0017	0.0015	0.0015	0.0018	0.0020	Ave		0.0017				11.7		20.0			
Dichlorobromomethane	0.3071 0.3373	0.2812	0.2963	0.3113	0.3539	Ave		0.3145			0.1500	8.5		20.0			
2-Chloroethyl vinyl ether	0.1020 0.1278	0.1027	0.1175	0.1262	0.1445	Ave		0.1201				13.6		20.0			
cis-1,3-Dichloropropene	0.4904 0.4546	0.3504	0.4007	0.4229	0.4801	Ave		0.4332			0.1500	12.2		20.0			
4-Methyl-2-pentanone (MIBK)	0.1791 0.1747	0.1777	0.1749	0.1879	0.2045	Ave		0.1831			0.0500	6.3		20.0			
Toluene	1.5807 1.6126	1.3100	1.5016	1.4843	1.6616	Ave		1.5251			0.4000	8.2		20.0			
trans-1,3-Dichloropropene	0.5455 0.4937	0.4272	0.4704	0.4666	0.5340	Ave		0.4896			0.1000	9.1		20.0			
Ethyl methacrylate	0.3523 0.3793	0.3777	0.4012	0.3922	0.4262	Ave		0.3881				6.4		20.0			
1,1,2-Trichloroethane	0.2419 0.2574	0.2368	0.2476	0.2361	0.2810	Ave		0.2501			0.1000	6.8		20.0			
Tetrachloroethene	0.2644 0.2657	0.2265	0.2433	0.2494	0.2762	Ave		0.2543			0.1500	7.1		20.0			
1,3-Dichloropropane	0.4258 0.4844	0.4640	0.4728	0.4626	0.5278	Ave		0.4729				7.0		20.0			
2-Hexanone	0.1922 0.1672	0.1848	0.1854	0.1888	0.2018	Ave		0.1867			0.0500	6.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2937 0.3013	0.2454	0.2787	0.2893	0.3224	Ave		0.2885				8.9		20.0			
Ethylene Dibromide	0.2513 0.2487	0.1951	0.2372	0.2443	0.2712	Ave		0.2413				10.5		20.0			
Chlorobenzene	1.1527 1.0056	0.8753	0.9036	0.9651	1.0385	Ave		0.9902			0.3000	10.1		20.0			
1,1,1,2-Tetrachloroethane	0.3207 0.3510	0.3023	0.3018	0.3369	0.3695	Ave		0.3304				8.2		20.0			
Ethylbenzene	0.5573 0.5456	0.4748	0.4781	0.5290	0.5713	Ave		0.5260				7.8		20.0			
m-Xylene & p-Xylene	0.7374 0.6843	0.5509	0.6226	0.6568	0.7048	Ave		0.6595				10.0		20.0			
o-Xylene	0.6736 0.6953	0.5721	0.6192	0.6710	0.7162	Ave		0.6579				8.1		20.0			
Styrene	1.0530 1.1585	0.9345	1.0311	1.1252	1.2061	Ave		1.0847			0.3000	9.1		20.0			
Bromoform	0.2210 0.1745	0.1790	0.1617	0.1757	0.1927	Ave		0.1841			0.1000	11.2		20.0			
Isopropylbenzene	1.7123 1.7084	1.3896	1.5478	1.6208	1.7853	Ave		1.6274			0.1000	8.8		20.0			
1,1,2,2-Tetrachloroethane	0.6184 0.5809	0.5680	0.5227	0.5931	0.6385	Ave		0.5869			0.3000	6.9		20.0			
Bromobenzene	0.8089 0.7120	0.6336	0.6141	0.6919	0.7270	Ave		0.6979				10.0		20.0			
1,2,3-Trichloropropane	0.1680 0.1709	0.1389	0.1627	0.1769	0.1874	Ave		0.1675				9.8		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1516	0.1408	0.1331	0.1501	0.1823	Ave		0.1516				12.4		20.0			
N-Propylbenzene	0.8774 0.7796	0.6552	0.6660	0.7565	0.8149	Ave		0.7583				11.3		20.0			
2-Chlorotoluene	0.7018 0.6984	0.5874	0.5990	0.6711	0.7182	Ave		0.6627				8.5		20.0			
1,3,5-Trimethylbenzene	2.6463 2.4475	2.0808	2.1384	2.3631	2.5782	Ave		2.3757				9.7		20.0			
4-Chlorotoluene	0.7921 0.7218	0.6402	0.6361	0.6965	0.7518	Ave		0.7064				8.7		20.0			
tert-Butylbenzene	2.0182 2.0625	1.7307	1.7602	1.9578	2.1584	Ave		1.9480				8.7		20.0			
1,2,4-Trimethylbenzene	3.3200 2.6339	2.1678	2.2129	2.5085	2.7112	Ave		2.5924				16.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.8244 2.7342	2.5123	2.3498	2.6066	2.8808	Ave		2.6514				7.6		20.0			
1,3-Dichlorobenzene	1.7262 1.3784	1.1578	1.2106	1.3360	1.4255	Ave		1.3724			0.6000	14.6		20.0			
4-Isopropyltoluene	2.4349 2.3998	1.9344	2.0990	2.2773	2.5078	Ave		2.2755				9.7		20.0			
1,4-Dichlorobenzene	+++++ 1.4020	1.1493	1.2473	1.3224	1.4564	Ave		1.3155			0.5000	9.3		20.0			
n-Butylbenzene	2.2888 2.0327	1.6485	1.6774	1.8467	2.0741	Ave		1.9280				12.9		20.0			
1,2-Dichlorobenzene	1.4426 1.3362	1.0751	1.1427	1.2497	1.3690	Ave		1.2692			0.4000	11.1		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1123	0.0947	0.0943	0.1065	0.1225	Ave		0.1060			0.0500	11.3		20.0			
1,2,4-Trichlorobenzene	+++++ 0.7379	0.6682	0.6057	0.6763	0.7662	Ave		0.6909			0.2000	9.1		20.0			
Hexachlorobutadiene	+++++ 0.2614	0.2042	0.2086	0.2363	0.2531	Ave		0.2327				11.1		20.0			
Naphthalene	+++++ 1.7405	1.5096	1.4202	1.6262	1.8750	Ave		1.6343				11.1		20.0			
1,2,3-Trichlorobenzene	+++++ 0.5985	0.4882	0.4828	0.5650	0.6417	Ave		0.5553				12.5		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2459	0.2091	0.2210	0.2407	0.2529	Ave		0.2339				7.8		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2708	0.2423	0.2463	0.2638	0.2859	Ave		0.2618				6.8		20.0			
Toluene-d8 (Surr)	+++++ 1.3757	1.1090	1.3199	1.2491	1.4370	Ave		1.2982				9.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4778	0.4815	0.4812	0.4899	0.5226	Ave		0.4906				3.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-265930/8	UXM0695.D
Level 2	STD8260 240-265930/9	UXM0696.D
Level 3	STD8260 240-265930/10	UXM0697.D
Level 4	ICIS 240-265930/11	UXM0698.D
Level 5	STD8260 240-265930/12	UXM0699.D
Level 6	STD8260 240-265930/13	UXM0700.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Lin1	4204 687315	8156	118923	246914	488281	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	10655 1141308	17553	183648	370272	783057	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	9773 1086862	14847	179315	346122	762063	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	8889 942390	11476	160096	307366	669736	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4576 568905	8099	94049	188116	406488	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	6258 668405	8723	104538	211007	463971	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	12953 1517482	21817	243740	484444	1041715	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Lin1	5121 962761	10393	163708	322566	695715	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5412 677982	10415	101899	221003	470198	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	5627 542939	9999	87005	175358	382404	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	7363 759112	10391	121286	253455	525922	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Ave	+++++ 404391	9533	73882	162494	327621	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	3077 442374	6084	70592	157144	315362	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	10931 1203573	16564	186029	402955	834498	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	+++++ 2731803	39971	425317	916730	1917497	+++++ 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	5139 591331	7494	87936	190019	397229	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	24597 2061489	38870	336748	723628	1516996	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 888743	47486	159902	310981	597131	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	4957 464149	8388	75351	169486	346242	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	20079 2239555	34059	344088	751761	1620485	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	9971 875545	12569	126157	286463	576830	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	17733 2164886	32098	320016	726518	1480605	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	8854 689924	12057	122355	251970	465568	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	13495 1552450	20970	228943	498734	1017797	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	12183 1252663	21172	195791	413522	847912	0.500 60.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	9795 960763	13300	144037	309311	619341	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7542 1052041	15159	168003	355749	707208	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	6423 498395	10639	83804	176209	367676	1.00 120	2.00	20.0	40.0	80.0
Chlorobromomethane	FB	Ave	3517 409769	5293	59896	130073	265071	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Lin1	4511 315194	6473	50130	105191	227296	1.00 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	12083 1395801	19840	206338	449185	892115	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	8235 1155238	14884	177442	367680	759125	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	9751 1231992	17150	190262	408616	833709	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	10125 1140599	15704	176562	364875	764820	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6990 962886	13038	144306	307573	644195	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	4307 388001	6398	62175	143248	292821	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	28888 3439605	46956	508201	1093860	2292910	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	8709 967083	14826	144618	312981	663679	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 306620	36308	82093	126219	232604	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	8642 840016	11557	123312	264913	560388	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	8041 968963	14302	153649	321470	665835	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6819 812861	10700	120644	259090	544464	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3815 397392	5533	59651	126781	280060	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 98191	1435	14905	34027	72789	+++++ 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7835 977670	13551	144123	295566	651051	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5205 740890	9895	114292	239695	531791	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	12512 1317443	16887	194915	401464	883203	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	9140 1012459	17129	170159	356824	752556	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	30234 3485260	47354	512502	1066239	2310110	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	10435 1067066	15442	160532	335183	742383	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6738 819681	13652	136920	281751	592501	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4626 556223	8561	84512	169574	390719	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	5057 574157	8189	83044	179155	384015	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8144 1046843	16771	161369	332283	733813	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	7353 722564	13359	126544	271287	561183	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5618 651305	8872	95120	207834	448227	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	4806 537424	7052	80945	175522	376992	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	22049 2173407	31640	308409	693317	1443779	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6135 758696	10928	102988	242043	513702	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	10660 1179270	17161	163186	380018	794283	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	14105 1478968	19912	212474	471798	979861	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	12885 1502819	20681	211338	482027	995741	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	20142 2503968	33780	351900	808289	1676813	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	4228 377209	6471	55195	126246	267859	0.500 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	32752 3692438	50228	528253	1164301	2481988	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6490 673044	11155	103713	238667	503701	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8490 824959	12443	121849	278414	573587	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1763 198043	2727	32292	71187	147822	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 175640	2765	26411	60379	143806	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	9209 903273	12867	132164	304408	642926	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7366 809276	11535	118870	270017	566581	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	27774 2835836	40863	424324	950870	2034074	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	8313 836311	12573	126219	280269	593154	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	21182 2389750	33988	349287	787786	1702872	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	34844 3051781	42571	439107	1009369	2138943	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	29643 3168001	49337	466281	1048831	2272821	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	18117 1597067	22737	240229	537584	1124662	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	25555 2780624	37987	416519	916327	1978523	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	+++++ 1624480	22570	247508	532094	1149007	+++++ 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	24022 2355198	32373	332845	743073	1636363	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	15141 1548170	21113	226747	502863	1080081	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 130083	1860	18704	42847	96644	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	+++++ 855020	13122	120189	272137	604510	+++++ 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	+++++ 302886	4010	41388	95079	199707	+++++ 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	+++++ 2016647	29646	281807	654344	1479232	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	+++++ 693497	9588	95806	227363	506268	+++++ 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 712768	10078	107520	228510	465153	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 784715	11678	119821	250450	525907	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2973365	40088	450490	897310	1997819	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1032676	17406	164241	351921	726530	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 14:06 Calibration End Date: 02/08/2017 16:03 Calibration ID: 38236

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-265930/15	UXM0702.D
Level 2	STDA9 240-265930/16	UXM0703.D
Level 3	STDA9 240-265930/17	UXM0704.D
Level 4	STDA9 240-265930/18	UXM0705.D
Level 5	STDA9 240-265930/19	UXM0706.D
Level 6	STDA9 240-265930/20	UXM0707.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0559 0.0271	0.0411	0.0268	0.0274	0.0278	Lin1	0.1397	0.0269							1.0000		0.9900
Isopropyl ether	0.2137 0.2744	0.2399	0.2707	0.2661	0.2759	Ave		0.2568				9.7		20.0			
2-Chloro-1,3-butadiene	0.4261 0.4837	0.4263	0.4764	0.4809	0.4864	Ave		0.4633				6.2		20.0			
Tert-butyl ethyl ether	0.8646 0.9359	0.8131	0.9111	0.9128	0.9378	Ave		0.8959				5.4		20.0			
Propionitrile	0.0274 0.0284	0.0266	0.0279	0.0283	0.0293	Ave		0.0280				3.3		20.0			
Ethyl acetate	0.1834 0.1694	0.1779	0.1772	0.1728	0.1774	Ave		0.1764				2.7		20.0			
Methacrylonitrile	0.1308 0.1317	0.1200	0.1324	0.1313	0.1355	Ave		0.1303				4.1		20.0			
Tert-amyl methyl ether	0.7342 0.8406	0.7331	0.8145	0.8259	0.8544	Ave		0.8004				6.7		20.0			
n-Butanol	0.0045 0.0052	0.0042	0.0049	0.0051	0.0054	Ave		0.0049				9.6		20.0			
Ethyl acrylate	0.2350 0.2376	0.2484	0.2502	0.2550	0.2571	Ave		0.2472				3.7		20.0			
Methyl methacrylate	0.1843 0.1801	0.1758	0.1906	0.1867	0.1883	Ave		0.1843				3.0		20.0			
2-Nitropropane	0.0615 0.0497	0.0462	0.0506	0.0500	0.0519	Ave		0.0517				10.1		20.0			
n-Butyl acetate	0.4234 0.3298	0.3605	0.3313	0.3402	0.3513	Ave		0.3561				9.8		20.0			
1-Chlorohexane	0.4213 0.4308	0.4250	0.4440	0.4316	0.4363	Ave		0.4315				1.9		20.0			
Cyclohexanone	+++++ 0.0137	0.0116	0.0140	0.0136	0.0142	Ave		0.0134				7.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 14:06 Calibration End Date: 02/08/2017 16:03 Calibration ID: 38236

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1928 0.2468	0.2005	0.2308	0.2258	0.2417	Lin1	-0.071	0.2419							0.9990		0.9900
1,2,3-Trimethylbenzene	2.4824 2.8101	2.4241	2.7316	2.6539	2.7707	Ave		2.6454				6.0		20.0			
Benzyl chloride	0.2263 0.2892	0.2357	0.2696	0.2602	0.2827	Lin1	-0.041	0.2826							0.9990		0.9900
1,3,5-Trichlorobenzene	0.7795 0.7930	0.7136	0.7651	0.7562	0.7600	Ave		0.7612				3.5		20.0			
2-Methylnaphthalene	0.4998 0.7711	0.5384	0.6698	0.6920	0.7439	Ave		0.6525				16.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 14:06 Calibration End Date: 02/08/2017 16:03 Calibration ID: 38236

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-265930/15	UXM0702.D
Level 2	STDA9 240-265930/16	UXM0703.D
Level 3	STDA9 240-265930/17	UXM0704.D
Level 4	STDA9 240-265930/18	UXM0705.D
Level 5	STDA9 240-265930/19	UXM0706.D
Level 6	STDA9 240-265930/20	UXM0707.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Lin1	12543 752712	18945	125186	255817	515099	5.00 600	10.0	100	200	400
Isopropyl ether	FB	Ave	4792 761632	11061	126464	248104	510534	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	9553 1342339	19659	222535	448355	900058	0.500 60.0	1.00	10.0	20.0	40.0
Tert-butyl ethyl ether	FB	Ave	19385 2597269	37497	425619	850906	1735339	0.500 60.0	1.00	10.0	20.0	40.0
Propionitrile	FB	Ave	6135 787334	12258	130115	263814	542455	5.00 600	10.0	100	200	400
Ethyl acetate	FB	Ave	8222 940224	16412	165563	322190	656741	1.00 120	2.00	20.0	40.0	80.0
Methacrylonitrile	FB	Ave	29320 3654332	55320	618508	1224308	2506552	5.00 600	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	16462 2332774	33804	380485	769963	1581073	0.500 60.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	2503 360193	4815	57711	117750	251196	12.5 1500	25.0	250	500	1000
Ethyl acrylate	FB	Ave	5269 659263	11457	116863	237718	475689	0.500 60.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	8265 999820	16217	178096	348063	696916	1.00 120	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	2760 275836	4258	47318	93255	192139	1.00 120	2.00	20.0	40.0	80.0
n-Butyl acetate	FB	Ave	9494 915151	16624	154738	317181	650026	0.500 60.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	6972 873799	14572	154264	304148	597957	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexanone	DCBd 4	Ave	+++++ 160135	2179	26555	53816	111010	+++++ 600	10.0	100	200	400
Pentachloroethane	CBNZ d5	Lin1	6381 1001058	13751	160392	318165	662596	1.00 120	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 14:06 Calibration End Date: 02/08/2017 16:03 Calibration ID: 38236

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	22484 3272980	45535	516762	1050035	2167165	0.500 60.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Lin1	2050 336865	4427	51001	102955	221137	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	7060 923604	13405	144733	299213	594474	0.500 60.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Ave	9053 1796135	20228	253436	547572	1163700	1.00 120	2.00	20.0	40.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: ICV 240-265930/23 Calibration Date: 02/08/2017 17:12

Instrument ID: A3UX16 Calib Start Date: 02/08/2017 11:17

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 02/08/2017 13:20

Lab File ID: UXM0710.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2339	0.2337		0.0200	0.0200	-0.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2618	0.2582		0.0197	0.0200	-1.4	20.0
Toluene-d8 (Surr)	Ave	1.298	1.341		0.0207	0.0200	3.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4906	0.5229		0.0213	0.0200	6.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: ICV 240-265930/23 Calibration Date: 02/08/2017 17:12

Instrument ID: A3UX16 Calib Start Date: 02/08/2017 14:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 02/08/2017 16:03

Lab File ID: UXM0710.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0264		0.191	0.200	-4.7	20.0
Isopropyl ether	Ave	0.2568	0.2803		0.0218	0.0200	9.2	20.0
2-Chloro-1,3-butadiene	Ave	0.4633	0.4649		0.0201	0.0200	0.4	20.0
Tert-butyl ethyl ether	Ave	0.8959	0.9211		0.0206	0.0200	2.8	20.0
Propionitrile	Ave	0.0280	0.0280		0.200	0.200	0.2	20.0
Ethyl acetate	Ave	0.1764	0.1679		0.0381	0.0400	-4.8	50.0
Methacrylonitrile	Ave	0.1303	0.1295		0.199	0.200	-0.6	20.0
Tert-amyl methyl ether	Ave	0.8004	0.8177		0.0204	0.0200	2.2	20.0
n-Butanol	Ave	0.0049	0.0049		0.504	0.500	0.8	20.0
Ethyl acrylate	Ave	0.2472	0.2403		0.0194	0.0200	-2.8	20.0
Methyl methacrylate	Ave	0.1843	0.1797		0.0390	0.0400	-2.5	20.0
2-Nitropropane	Ave	0.0517	0.0475		0.0368	0.0400	-8.1	20.0
n-Butyl acetate	Ave	0.3561	0.3339		0.0188	0.0200	-6.2	30.0
1-Chlorohexane	Ave	0.4315	0.4137		0.0192	0.0200	-4.1	20.0
Cyclohexanone	Ave	0.0134	0.0162		0.241	0.200	20.5*	20.0
Pentachloroethane	Lin1		0.2184		0.0364	0.0400	-9.0	20.0
1,2,3-Trimethylbenzene	Ave	2.645	2.799		0.0212	0.0200	5.8	20.0
Benzyl chloride	Lin1		0.2527		0.0180	0.0200	-9.9	20.0
1,3,5-Trichlorobenzene	Ave	0.7612	0.7969		0.0209	0.0200	4.7	20.0
2-Methylnaphthalene	Ave	0.6525	0.6624		0.0406	0.0400	1.5	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab File ID: BFB5177.D BFB Injection Date: 03/08/2017

Instrument ID: A3UX16 BFB Injection Time: 09:32

Analysis Batch No.: 269649

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.6	
75	30.0 - 60.0 % of mass 95	45.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.6	(0.8) 1
174	50.0 - 120.00 % of mass 95	71.5	
175	5.0 - 9.0 % of mass 174	5.1	(7.2) 1
176	95.0 - 101.0 % of mass 174	68.9	(96.4) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-269649/8	UXM1069.D	03/08/2017	10:00
	STD8260 240-269649/9	UXM1070.D	03/08/2017	10:23
	STD8260 240-269649/10	UXM1071.D	03/08/2017	10:46
	ICIS 240-269649/11	UXM1072.D	03/08/2017	11:10
	STD8260 240-269649/12	UXM1073.D	03/08/2017	11:33
	STD8260 240-269649/13	UXM1074.D	03/08/2017	11:56
	ICV 240-269649/22	UXM1076.D	03/08/2017	12:42

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-269649/8	UXM1069.D
Level 2	STD8260 240-269649/9	UXM1070.D
Level 3	STD8260 240-269649/10	UXM1071.D
Level 4	ICIS 240-269649/11	UXM1072.D
Level 5	STD8260 240-269649/12	UXM1073.D
Level 6	STD8260 240-269649/13	UXM1074.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2706	0.1484	0.2845	0.2994	0.2676	Lin1	-0.100	0.2780			0.1000				0.9970		0.9900
Chloromethane	0.4639 0.4076	0.3348	0.3784	0.3726	0.4101	Ave		0.3946			0.1000	11.1		20.0			
Vinyl chloride	0.4467 0.3847	0.3116	0.3639	0.3718	0.3874	Ave		0.3777			0.1000	11.5		20.0			
Butadiene	0.3907 0.3377	0.3033	0.3341	0.3294	0.3412	Ave		0.3394				8.4		20.0			
Bromomethane	0.1978 0.1965	0.1948	0.1890	0.1848	0.2057	Ave		0.1948			0.0500	3.7		20.0			
Chloroethane	0.2214 0.2294	0.1914	0.2118	0.2132	0.2373	Ave		0.2174			0.0500	7.4		20.0			
Dichlorofluoromethane	0.5301 0.5306	0.4525	0.4869	0.4883	0.5391	Ave		0.5046				6.8		20.0			
Trichlorofluoromethane	0.2359 0.3519	0.2405	0.3440	0.3510	0.3474	Ave		0.3118			0.1000	18.3		20.0			
Ethyl ether	0.2218 0.2301	0.2177	0.2158	0.2119	0.2374	Ave		0.2225				4.3		20.0			
Acrolein	0.0332 0.0274	0.0249	0.0243	0.0268	0.0287	Ave		0.0275				11.6		20.0			
1,1-Dichloroethene	0.3220 0.2778	0.2330	0.2656	0.2566	0.2759	Ave		0.2718			0.1000	10.9		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1588 0.1704	0.1426	0.1744	0.1781	0.1704	Ave		0.1658			0.0500	7.9		20.0			
Acetone	+++++ 0.0767	0.1535	0.0942	0.0922	0.0756	Lin1	0.1776	0.0773			0.0100				0.9940		0.9900
Iodomethane	0.4565 0.4372	0.3805	0.4045	0.3976	0.4375	Ave		0.4190				6.9		20.0			
Carbon disulfide	+++++ 0.9775	0.8688	0.9228	0.8849	0.9758	Ave		0.9260			0.1000	5.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	+++++ 0.2094	0.1742	0.1937	0.1886	0.2094	Ave		0.1951				7.7		20.0			
Methyl acetate	0.1613 0.1385	0.1513	0.1392	0.1379	0.1434	Ave		0.1453			0.1000	6.4		20.0			
Methylene Chloride	+++++ 0.3164	0.4027	0.3016	0.2845	0.3166	Ave		0.3244			0.1000	14.1		20.0			
2-Methyl-2-propanol	+++++ 0.0159	0.0187	0.0160	0.0168	0.0171	Ave		0.0169				6.6		20.0			
Acrylonitrile	0.0932 0.0757	0.0779	0.0738	0.0738	0.0786	Ave		0.0788				9.3		20.0			
trans-1,2-Dichloroethene	0.4270 0.3128	0.2972	0.2920	0.2809	0.3144	Ave		0.3207			0.1000	16.7		20.0			
Methyl tert-butyl ether	0.7696 0.7305	0.6698	0.7022	0.6837	0.7494	Ave		0.7175			0.1000	5.4		20.0			
Hexane	+++++ 0.2745	0.2477	0.3036	0.3266	0.2788	Ave		0.2862				10.5		20.0			
1,1-Dichloroethane	0.5266 0.5523	0.4600	0.5130	0.4897	0.5514	Ave		0.5155			0.2000	7.0		20.0			
Vinyl acetate	0.4562 0.4041	0.3949	0.3874	0.3810	0.4244	Ave		0.4080				6.9		20.0			
cis-1,2-Dichloroethene	0.3747 0.3460	0.2984	0.3201	0.3063	0.3457	Ave		0.3319			0.1000	8.7		20.0			
2,2-Dichloropropane	0.3194 0.3672	0.3389	0.3674	0.3461	0.3749	Ave		0.3523				6.0		20.0			
2-Butanone (MEK)	0.1250 0.0852	0.0999	0.0942	0.0941	0.0865	Ave		0.0975			0.0100	14.9		20.0			
Chlorobromomethane	0.1404 0.1424	0.1273	0.1333	0.1269	0.1419	Ave		0.1354				5.3		20.0			
Tetrahydrofuran	+++++ 0.0513	0.0486	0.0510	0.0508	0.0528	Ave		0.0509				3.0		20.0			
Chloroform	0.4631 0.4927	0.4431	0.4637	0.4381	0.4912	Ave		0.4653			0.2000	5.0		20.0			
1,1,1-Trichloroethane	0.3833 0.4104	0.3571	0.3818	0.3734	0.4060	Ave		0.3853			0.1000	5.2		20.0			
Cyclohexane	0.4458 0.4611	0.3890	0.4616	0.4808	0.4587	Ave		0.4495			0.1000	7.0		20.0			
1,1-Dichloropropene	0.4761 0.4069	0.3535	0.3871	0.3796	0.4036	Ave		0.4011				10.3		20.0			
Carbon tetrachloride	0.2795 0.3356	0.2843	0.3187	0.3137	0.3364	Ave		0.3114			0.1000	7.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0050 0.0052	0.0058	0.0051	0.0056	0.0055	Ave		0.0054				6.0		20.0			
Benzene	1.2096 1.2191	1.0404	1.1260	1.0851	1.2152	Ave		1.1492			0.5000	6.7		20.0			
1,2-Dichloroethane	0.3307 0.3277	0.3036	0.3133	0.3000	0.3330	Ave		0.3181			0.1000	4.5		20.0			
n-Heptane	+++++ 0.1201	0.7372	0.1861	0.1683	0.1255	Lin1	0.6424	0.1144							0.9910		0.9900
Trichloroethene	0.3361 0.2948	0.2679	0.2804	0.2686	0.2947	Ave		0.2904			0.1500	8.7		20.0			
Methylcyclohexane	0.3399 0.3765	0.3044	0.3820	0.4079	0.3769	Ave		0.3646			0.1000	10.0		20.0			
1,2-Dichloropropane	0.2239 0.2830	0.2410	0.2632	0.2526	0.2879	Ave		0.2586			0.1000	9.5		20.0			
Dibromomethane	0.1592 0.1371	0.1302	0.1268	0.1269	0.1394	Ave		0.1366				9.0		20.0			
1,4-Dioxane	+++++ 0.0019	0.0019	0.0019	0.0019	0.0020	Ave		0.0019				2.0		20.0			
Dichlorobromomethane	0.2862 0.3335	0.2917	0.3040	0.2990	0.3355	Ave		0.3083			0.1500	6.9		20.0			
2-Chloroethyl vinyl ether	0.1188 0.1274	0.1132	0.1187	0.1215	0.1305	Ave		0.1217				5.2		20.0			
cis-1,3-Dichloropropene	0.4494 0.4514	0.3628	0.4071	0.3880	0.4449	Ave		0.4173			0.1500	8.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2019 0.1615	0.1745	0.1749	0.1787	0.1735	Ave		0.1775			0.0500	7.5		20.0			
Toluene	1.5232 1.6752	1.4708	1.5684	1.4985	1.6799	Ave		1.5693			0.4000	5.7		20.0			
trans-1,3-Dichloropropene	0.5258 0.4877	0.4206	0.4624	0.4460	0.4985	Ave		0.4735			0.1000	8.0		20.0			
Ethyl methacrylate	0.3515 0.3673	0.3697	0.3837	0.3778	0.3934	Ave		0.3739				3.9		20.0			
1,1,2-Trichloroethane	0.2584 0.2579	0.2296	0.2463	0.2455	0.2705	Ave		0.2514			0.1000	5.6		20.0			
Tetrachloroethene	0.3025 0.2781	0.2448	0.2677	0.2551	0.2809	Ave		0.2715			0.1500	7.5		20.0			
1,3-Dichloropropane	0.4828 0.4949	0.4654	0.4779	0.4710	0.5075	Ave		0.4833				3.2		20.0			
2-Hexanone	0.1949 0.1656	0.1858	0.1979	0.2053	0.1732	Ave		0.1871			0.0500	8.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2613 0.3051	0.2571	0.2781	0.2748	0.3059	Ave		0.2804				7.5		20.0			
Ethylene Dibromide	0.2892 0.2509	0.2437	0.2442	0.2393	0.2581	Ave		0.2542				7.2		20.0			
Chlorobenzene	1.1521 1.0580	0.9115	0.9807	0.9446	1.0658	Ave		1.0188			0.3000	8.8		20.0			
1,1,1,2-Tetrachloroethane	0.3345 0.3660	0.2816	0.3405	0.3270	0.3694	Ave		0.3365				9.5		20.0			
Ethylbenzene	0.5366 0.5715	0.5048	0.5401	0.5132	0.5675	Ave		0.5389				5.1		20.0			
m-Xylene & p-Xylene	0.7466 0.7181	0.6034	0.6610	0.6457	0.7141	Ave		0.6815				7.9		20.0			
o-Xylene	0.7239 0.7248	0.6088	0.6691	0.6523	0.7431	Ave		0.6870				7.6		20.0			
Styrene	1.1950 1.2246	0.9959	1.1484	1.1008	1.2410	Ave		1.1510			0.3000	8.0		20.0			
Bromoform	0.1330 0.1704	0.1561	0.1604	0.1591	0.1722	Ave		0.1585			0.1000	8.9		20.0			
Isopropylbenzene	1.6496 1.8092	1.3914	1.6602	1.5709	1.7250	Ave		1.6344			0.1000	8.8		20.0			
1,1,2,2-Tetrachloroethane	0.6144 0.5807	0.5229	0.5923	0.5580	0.5895	Ave		0.5763			0.3000	5.5		20.0			
Bromobenzene	0.9353 0.7446	0.6498	0.7260	0.6535	0.7444	Ave		0.7422				14.0		20.0			
1,2,3-Trichloropropane	0.1466 0.1695	0.1557	0.1765	0.1642	0.1753	Ave		0.1646				7.1		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1457	0.0887	0.1460	0.1342	0.1482	Ave		0.1326				18.9		20.0			
N-Propylbenzene	0.7567 0.8326	0.6589	0.8013	0.7341	0.8280	Ave		0.7686				8.6		20.0			
2-Chlorotoluene	0.6478 0.7349	0.6397	0.6999	0.6511	0.7494	Ave		0.6871				7.0		20.0			
1,3,5-Trimethylbenzene	2.3887 2.6566	2.0612	2.4367	2.2384	2.6709	Ave		2.4087				9.8		20.0			
4-Chlorotoluene	0.8114 0.7722	0.6668	0.7350	0.6657	0.7828	Ave		0.7390				8.3		20.0			
tert-Butylbenzene	2.3441 2.2534	1.8461	2.0946	1.9100	2.2704	Ave		2.1198				9.7		20.0			
1,2,4-Trimethylbenzene	2.6904 2.7823	2.2464	2.5455	2.3513	2.7224	Ave		2.5564				8.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.7269 2.9607	2.3671	2.7307	2.5478	2.8655	Ave		2.6998				8.0		20.0			
1,3-Dichlorobenzene	1.6310 1.4559	1.1654	1.3556	1.3009	1.4230	Ave		1.3886			0.6000	11.3		20.0			
4-Isopropyltoluene	2.4521 2.5600	2.0718	2.3444	2.2751	2.4743	Ave		2.3630				7.4		20.0			
1,4-Dichlorobenzene	1.8122 1.4702	1.2671	1.4024	1.3371	1.4583	Ave		1.4579			0.5000	13.0		20.0			
n-Butylbenzene	2.0888 2.1352	1.6578	1.9397	1.8723	2.0358	Ave		1.9549				8.9		20.0			
1,2-Dichlorobenzene	1.4618 1.3619	1.1803	1.2901	1.2593	1.3490	Ave		1.3171			0.4000	7.3		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0965	0.0592	0.0928	0.0941	0.0988	Ave		0.0883			0.0500	18.6		20.0			
1,2,4-Trichlorobenzene	+++++ 0.6942	0.6194	0.6340	0.6280	0.7536	Ave		0.6658			0.2000	8.6		20.0			
Hexachlorobutadiene	0.3954 0.2792	0.2892	0.2493	0.2490	0.2917	Ave		0.2923				18.4		20.0			
Naphthalene	+++++ 1.4698	1.3198	1.3144	1.4025	1.5801	Ave		1.4173				7.9		20.0			
1,2,3-Trichlorobenzene	+++++ 0.5165	0.4609	0.4720	0.4832	0.5546	Ave		0.4974				7.7		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2463	0.2173	0.2240	0.2227	0.2492	Ave		0.2319				6.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2593	0.2248	0.2494	0.2416	0.2693	Ave		0.2489				6.8		20.0			
Toluene-d8 (Surr)	+++++ 1.4136	1.2176	1.3217	1.2733	1.4376	Ave		1.3327				7.0		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5118	0.4676	0.4760	0.4610	0.5059	Ave		0.4845				4.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-269649/8	UXM1069.D
Level 2	STD8260 240-269649/9	UXM1070.D
Level 3	STD8260 240-269649/10	UXM1071.D
Level 4	ICIS 240-269649/11	UXM1072.D
Level 5	STD8260 240-269649/12	UXM1073.D
Level 6	STD8260 240-269649/13	UXM1074.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Lin1	+++++ 781570	7363	144339	295422	518895	+++++ 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	11433 1177280	16616	191963	367648	795169	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	11008 1111222	15466	184616	366850	751062	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	9627 975600	15052	169511	325041	661484	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4874 567516	9668	95908	182373	398917	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	5457 662554	9501	107445	210363	460132	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	13064 1532802	22455	247042	481794	1045233	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	5813 1016517	11937	174532	346361	673500	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5466 664729	10804	109487	209107	460345	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	4089 395186	6175	61572	132322	277762	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	7935 802449	11561	134745	253180	534914	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	3913 492269	7079	88466	175760	330305	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 443297	15237	95549	181970	293106	+++++ 120	2.00	20.0	40.0	80.0
Iodomethane	FB	Ave	11250 1262998	18882	205220	392260	848334	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	+++++ 2823634	43118	468180	873072	1892009	+++++ 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	+++++ 604804	8643	98271	186064	406086	+++++ 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	19873 2000009	37552	353013	680492	1389694	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Ave	+++++ 913967	19987	153038	280668	613849	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	+++++ 459992	9278	81319	165945	331856	+++++ 600	10.0	100	200	400
Acrylonitrile	FB	Ave	22955 2186283	38638	374445	728441	1524897	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	10522 903659	14749	148153	277185	609536	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	18966 2110226	33242	356231	674545	1452926	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	+++++ 792881	12293	154023	322240	540532	+++++ 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	12976 1595327	22827	260284	483200	1069118	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	11241 1167315	19600	196566	375918	822923	0.500 60.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	9233 999338	14807	162412	302161	670339	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7871 1060636	16820	186375	341440	726884	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	6161 492164	9913	95609	185628	335474	1.00 120	2.00	20.0	40.0	80.0
Chlorobromomethane	FB	Ave	3461 411367	6320	67641	125252	275178	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 296314	4823	51747	100292	204821	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	11412 1423179	21989	235247	432290	952349	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9445 1185569	17724	193699	368417	787251	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	10987 1331898	19306	234187	474415	889446	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	11733 1175350	17541	196376	374564	782465	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6887 969389	14108	161690	309521	652222	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3077 375788	7242	65286	139058	265262	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	29807 3521603	51633	571237	1070650	2356052	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	8150 946717	15066	158938	295981	645637	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 346932	36585	94435	166050	243414	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	8282 851673	13294	142245	265024	571449	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	8376 1087416	15105	193808	402470	730685	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	5518 817531	11959	133528	249231	558189	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3922 396075	6461	64350	125175	270217	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 112459	1881	19404	37397	76927	+++++ 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7053 963272	14474	154223	295036	650540	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5853 735859	11232	120475	239729	505879	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	11074 1304042	18007	206536	382842	862630	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	9949 932838	17319	177453	352667	672855	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	28340 3514611	50678	572833	1068732	2365283	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	9782 1023168	14493	168887	318082	701926	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6540 770633	12739	140123	269418	553871	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4807 541029	7910	89938	175118	380856	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	5629 583389	8436	97756	181930	395531	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8983 1038320	16036	174556	335931	714494	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	7251 694863	12803	144575	292872	487735	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	4862 640066	8858	101582	195995	430702	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	5380 526392	8396	89172	170665	363380	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	21435 2219749	31408	358166	673698	1500534	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6224 767906	9704	124366	233229	520141	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	9983 1199011	17392	197254	365971	799053	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	13890 1506627	20790	241420	460496	1005430	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	13468 1520769	20977	244367	465219	1046325	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	22234 2569399	34316	419412	785041	1747299	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	2474 357550	5378	58579	113437	242428	0.500 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	30692 3795919	47941	606346	1120338	2428735	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6339 680972	9957	118108	220694	444918	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	9649 873193	12372	144763	258455	561865	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1512 198812	2964	35206	64932	132346	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 170805	1689	29117	53089	111830	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	7807 976376	12547	159781	290362	624927	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	6683 861821	12180	139559	257520	565620	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	24644 3115350	39247	485907	885315	2015967	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	8371 905522	12697	146569	263293	590864	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	24184 2642504	35152	417685	755457	1713665	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	27757 3262770	42773	507603	929989	2054828	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	28133 3471983	45072	544540	1007699	2162779	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	16827 1707362	22190	270320	514521	1074020	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	25298 3002059	39450	467510	899848	1867574	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	18696 1724125	24126	279655	528857	1100683	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	21550 2503872	31567	386793	740540	1536569	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	15081 1597094	22474	257257	498079	1018230	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 113109	1127	18498	37211	74560	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	+++++ 814042	11794	126419	248398	568777	+++++ 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4079 327414	5507	49705	98487	220182	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	+++++ 1723633	25131	262107	554730	1192625	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	+++++ 605654	8776	94116	191115	418595	+++++ 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 711519	10782	113630	219681	483071	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 749106	11156	126532	238378	522047	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2965794	41953	482714	908114	2024022	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1073793	16113	173841	328785	712309	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: ICV 240-269649/22 Calibration Date: 03/08/2017 12:42

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1076.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.2719	0.1000	0.0199	0.0200	-0.4	20.0
Chloromethane	Ave	0.3946	0.3908	0.1000	0.0198	0.0200	-1.0	20.0
Vinyl chloride	Ave	0.3777	0.3762	0.1000	0.0199	0.0200	-0.4	20.0
Butadiene	Ave	0.3394	0.3304		0.0195	0.0200	-2.7	30.0
Bromomethane	Ave	0.1948	0.1903	0.0500	0.0195	0.0200	-2.3	20.0
Chloroethane	Ave	0.2174	0.2233	0.0500	0.0205	0.0200	2.7	20.0
Dichlorofluoromethane	Ave	0.5046	0.4896		0.0194	0.0200	-3.0	20.0
Trichlorofluoromethane	Ave	0.3118	0.3299	0.1000	0.0212	0.0200	5.8	20.0
Ethyl ether	Ave	0.2225	0.2212		0.0199	0.0200	-0.6	20.0
Acrolein	Ave	0.0275	0.0308		0.112	0.100	12.0	50.0
1,1-Dichloroethene	Ave	0.2718	0.2590	0.1000	0.0191	0.0200	-4.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1658	0.1645	0.0500	0.0198	0.0200	-0.8	20.0
Acetone	Lin1		0.0589	0.0100	0.0282	0.0400	-29.5	50.0
Iodomethane	Ave	0.4190	0.4032		0.0192	0.0200	-3.8	20.0
Carbon disulfide	Ave	0.9260	0.9298	0.1000	0.0201	0.0200	0.4	20.0
3-Chloro-1-propene	Ave	0.1951	0.1897		0.0195	0.0200	-2.7	20.0
Methyl acetate	Ave	0.1453	0.1361	0.1000	0.0937	0.100	-6.3	20.0
Methylene Chloride	Ave	0.3244	0.2977	0.1000	0.0184	0.0200	-8.2	50.0
2-Methyl-2-propanol	Ave	0.0169	0.0170		0.201	0.200	0.4	50.0
Acrylonitrile	Ave	0.0788	0.0748		0.190	0.200	-5.1	20.0
trans-1,2-Dichloroethene	Ave	0.3207	0.2907	0.1000	0.0181	0.0200	-9.4	20.0
Methyl tert-butyl ether	Ave	0.7175	0.7209	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2862	0.2764		0.0193	0.0200	-3.4	20.0
1,1-Dichloroethane	Ave	0.5155	0.4990	0.2000	0.0194	0.0200	-3.2	20.0
Vinyl acetate	Ave	0.4080	0.3642		0.0179	0.0200	-10.7	50.0
2,2-Dichloropropane	Ave	0.3523	0.3499		0.0199	0.0200	-0.7	20.0
cis-1,2-Dichloroethene	Ave	0.3319	0.3162	0.1000	0.0191	0.0200	-4.7	20.0
2-Butanone (MEK)	Ave	0.0975	0.0717	0.0100	0.0294	0.0400	-26.5*	20.0
Chlorobromomethane	Ave	0.1354	0.1293		0.0191	0.0200	-4.5	20.0
Tetrahydrofuran	Ave	0.0509	0.0518		0.0407	0.0400	1.8	20.0
Chloroform	Ave	0.4653	0.4404	0.2000	0.0189	0.0200	-5.4	20.0
1,1,1-Trichloroethane	Ave	0.3853	0.3793	0.1000	0.0197	0.0200	-1.6	20.0
Cyclohexane	Ave	0.4495	0.4395	0.1000	0.0196	0.0200	-2.2	20.0
1,1-Dichloropropene	Ave	0.4011	0.3837		0.0191	0.0200	-4.3	20.0
Carbon tetrachloride	Ave	0.3114	0.3031	0.1000	0.0195	0.0200	-2.7	20.0
Isobutyl alcohol	Ave	0.0054	0.0054		0.504	0.500	0.7	20.0
1,2-Dichloroethane	Ave	0.3181	0.2972	0.1000	0.0187	0.0200	-6.6	20.0
Benzene	Ave	1.149	1.111	0.5000	0.0193	0.0200	-3.3	20.0
n-Heptane	Lin1		0.1358		0.0181	0.0200	-9.4	20.0
Trichloroethene	Ave	0.2904	0.2637	0.1500	0.0182	0.0200	-9.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: ICV 240-269649/22 Calibration Date: 03/08/2017 12:42

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1076.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3646	0.3520	0.1000	0.0193	0.0200	-3.4	20.0
1,2-Dichloropropane	Ave	0.2586	0.2527	0.1000	0.0195	0.0200	-2.3	20.0
Dibromomethane	Ave	0.1366	0.1261		0.0185	0.0200	-7.7	20.0
1,4-Dioxane	Ave	0.0019	0.0019		0.384	0.400	-4.0	50.0
Dichlorobromomethane	Ave	0.3083	0.2982	0.1500	0.0193	0.0200	-3.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1217	0.1133		0.0186	0.0200	-6.9	20.0
cis-1,3-Dichloropropene	Ave	0.4173	0.3763	0.1500	0.0180	0.0200	-9.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1775	0.1640	0.0500	0.0370	0.0400	-7.6	20.0
Toluene	Ave	1.569	1.502	0.4000	0.0191	0.0200	-4.3	20.0
trans-1,3-Dichloropropene	Ave	0.4735	0.4357	0.1000	0.0184	0.0200	-8.0	20.0
Ethyl methacrylate	Ave	0.3739	0.3790		0.0203	0.0200	1.4	20.0
1,1,2-Trichloroethane	Ave	0.2514	0.2519	0.1000	0.0200	0.0200	0.2	20.0
1,3-Dichloropropane	Ave	0.4833	0.4548		0.0188	0.0200	-5.9	20.0
Tetrachloroethene	Ave	0.2715	0.2516	0.1500	0.0185	0.0200	-7.3	20.0
2-Hexanone	Ave	0.1871	0.1656	0.0500	0.0354	0.0400	-11.5	20.0
Chlorodibromomethane	Ave	0.2804	0.2667		0.0190	0.0200	-4.9	20.0
Ethylene Dibromide	Ave	0.2542	0.2253		0.0177	0.0200	-11.4	20.0
Chlorobenzene	Ave	1.019	0.9259	0.3000	0.0182	0.0200	-9.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3365	0.3317		0.0197	0.0200	-1.4	20.0
Ethylbenzene	Ave	0.5389	0.5057		0.0188	0.0200	-6.2	20.0
m-Xylene & p-Xylene	Ave	0.6815	0.6249		0.0183	0.0200	-8.3	20.0
o-Xylene	Ave	0.6870	0.6495		0.0189	0.0200	-5.5	20.0
Styrene	Ave	1.151	1.073	0.3000	0.0186	0.0200	-6.8	20.0
Bromoform	Ave	0.1585	0.1542	0.1000	0.0194	0.0200	-2.8	20.0
Isopropylbenzene	Ave	1.634	1.580	0.1000	0.0193	0.0200	-3.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5763	0.5612	0.3000	0.0195	0.0200	-2.6	20.0
Bromobenzene	Ave	0.7422	0.6489		0.0175	0.0200	-12.6	20.0
1,2,3-Trichloropropane	Ave	0.1646	0.1636		0.0199	0.0200	-0.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1326	0.1291		0.0195	0.0200	-2.6	20.0
N-Propylbenzene	Ave	0.7686	0.7180		0.0187	0.0200	-6.6	20.0
2-Chlorotoluene	Ave	0.6871	0.6482		0.0189	0.0200	-5.7	20.0
1,3,5-Trimethylbenzene	Ave	2.409	2.247		0.0187	0.0200	-6.7	20.0
4-Chlorotoluene	Ave	0.7390	0.6668		0.0180	0.0200	-9.8	20.0
tert-Butylbenzene	Ave	2.120	1.803		0.0170	0.0200	-14.9	20.0
1,2,4-Trimethylbenzene	Ave	2.556	2.345		0.0183	0.0200	-8.3	20.0
sec-Butylbenzene	Ave	2.700	2.435		0.0180	0.0200	-9.8	20.0
1,3-Dichlorobenzene	Ave	1.389	1.256	0.6000	0.0181	0.0200	-9.5	20.0
4-Isopropyltoluene	Ave	2.363	2.134		0.0181	0.0200	-9.7	20.0
1,4-Dichlorobenzene	Ave	1.458	1.301	0.5000	0.0179	0.0200	-10.7	20.0
n-Butylbenzene	Ave	1.955	1.763		0.0180	0.0200	-9.8	20.0
1,2-Dichlorobenzene	Ave	1.317	1.235	0.4000	0.0188	0.0200	-6.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: ICV 240-269649/22 Calibration Date: 03/08/2017 12:42

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1076.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0883	0.0978	0.0500	0.0222	0.0200	10.8	50.0
1,2,4-Trichlorobenzene	Ave	0.6658	0.6684	0.2000	0.0201	0.0200	0.4	50.0
Hexachlorobutadiene	Ave	0.2923	0.2435		0.0167	0.0200	-16.7	20.0
Naphthalene	Ave	1.417	1.484		0.0209	0.0200	4.7	50.0
1,2,3-Trichlorobenzene	Ave	0.4974	0.5130		0.0206	0.0200	3.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2319	0.2290		0.0197	0.0200	-1.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2489	0.2469		0.0198	0.0200	-0.8	20.0
Toluene-d8 (Surr)	Ave	1.333	1.371		0.0206	0.0200	2.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4845	0.5087		0.0210	0.0200	5.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab File ID: BFB5189.D BFB Injection Date: 03/21/2017

Instrument ID: A3UX16 BFB Injection Time: 08:31

Analysis Batch No.: 271291

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.8	
75	30.0 - 60.0 % of mass 95	46.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	76.0	
175	5.0 - 9.0 % of mass 174	5.7	(7.5) 1
176	95.0 - 101.0 % of mass 174	74.0	(97.4) 1
177	5.0 - 9.0 % of mass 176	5.2	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-271291/3	UXM1305.D	03/21/2017	08:55
	LCS 240-271291/4	UXM1306.D	03/21/2017	09:18
	CCV 240-271291/5	UXM1307.D	03/21/2017	09:41
	MB 240-271291/7	UXM1309.D	03/21/2017	10:27
TB-031517	240-76810-1	UXM1314.D	03/21/2017	13:42
MRC-MW34B-031517	240-76810-2	UXM1315.D	03/21/2017	14:06
MRC-MW34C-031517	240-76810-3	UXM1316.D	03/21/2017	14:29
MRC-MW62A-031517	240-76810-4	UXM1317.D	03/21/2017	14:52
MRC-MW43A-031517	240-76810-5	UXM1318.D	03/21/2017	15:15
MRC-MW62C-031517	240-76810-6	UXM1319.D	03/21/2017	15:38

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCVIS 240-271291/3 Calibration Date: 03/21/2017 08:55

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.2995	0.1000	0.0219	0.0200	9.5	20.0
Chloromethane	Ave	0.3946	0.4165	0.1000	0.0211	0.0200	5.5	20.0
Vinyl chloride	Ave	0.3777	0.3825	0.1000	0.0203	0.0200	1.3	20.0
Butadiene	Ave	0.3394	0.3097		0.0182	0.0200	-8.8	20.0
Bromomethane	Ave	0.1948	0.2004	0.0500	0.0206	0.0200	2.9	20.0
Chloroethane	Ave	0.2174	0.2192	0.0500	0.0202	0.0200	0.8	20.0
Dichlorofluoromethane	Ave	0.5046	0.4978		0.0197	0.0200	-1.3	20.0
Trichlorofluoromethane	Ave	0.3118	0.3446	0.1000	0.0221	0.0200	10.5	20.0
Ethyl ether	Ave	0.2225	0.2218		0.0199	0.0200	-0.3	20.0
Acrolein	Ave	0.0275	0.0286		0.104	0.100	3.7	50.0
1,1-Dichloroethene	Ave	0.2718	0.2579	0.1000	0.0190	0.0200	-5.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1658	0.1493	0.0500	0.0180	0.0200	-10.0	20.0
Acetone	Lin1		0.0785	0.0100	0.0383	0.0400	-4.2	50.0
Iodomethane	Ave	0.4190	0.4164		0.0199	0.0200	-0.6	20.0
Carbon disulfide	Ave	0.9260	0.8884	0.1000	0.0192	0.0200	-4.1	20.0
3-Chloro-1-propene	Ave	0.1951	0.1928		0.0198	0.0200	-1.2	20.0
Methyl acetate	Ave	0.1453	0.1361	0.1000	0.0937	0.100	-6.3	20.0
Methylene Chloride	Ave	0.3244	0.3053	0.1000	0.0188	0.0200	-5.9	50.0
2-Methyl-2-propanol	Ave	0.0169	0.0159		0.188	0.200	-5.9	50.0
Acrylonitrile	Ave	0.0788	0.0744		0.189	0.200	-5.6	20.0
trans-1,2-Dichloroethene	Ave	0.3207	0.3010	0.1000	0.0188	0.0200	-6.1	20.0
Methyl tert-butyl ether	Ave	0.7175	0.7130	0.1000	0.0199	0.0200	-0.6	20.0
Hexane	Ave	0.2862	0.2494		0.0174	0.0200	-12.9	20.0
1,1-Dichloroethane	Ave	0.5155	0.5239	0.2000	0.0203	0.0200	1.6	20.0
Vinyl acetate	Ave	0.4080	0.3601		0.0177	0.0200	-11.7	50.0
cis-1,2-Dichloroethene	Ave	0.3319	0.3302	0.1000	0.0199	0.0200	-0.5	20.0
2,2-Dichloropropane	Ave	0.3523	0.3626		0.0206	0.0200	2.9	20.0
2-Butanone (MEK)	Ave	0.0975	0.0874	0.0100	0.0359	0.0400	-10.3	20.0
Chlorobromomethane	Ave	0.1354	0.1383		0.0204	0.0200	2.1	20.0
Tetrahydrofuran	Ave	0.0509	0.0499		0.0392	0.0400	-1.9	20.0
Chloroform	Ave	0.4653	0.4767	0.2000	0.0205	0.0200	2.4	20.0
1,1,1-Trichloroethane	Ave	0.3853	0.3810	0.1000	0.0198	0.0200	-1.1	20.0
Cyclohexane	Ave	0.4495	0.4060	0.1000	0.0181	0.0200	-9.7	20.0
1,1-Dichloropropene	Ave	0.4011	0.3881		0.0194	0.0200	-3.2	20.0
Carbon tetrachloride	Ave	0.3114	0.3118	0.1000	0.0200	0.0200	0.1	20.0
Isobutyl alcohol	Ave	0.0054	0.0054		0.498	0.500	-0.4	20.0
1,2-Dichloroethane	Ave	0.3181	0.3188	0.1000	0.0200	0.0200	0.2	20.0
Benzene	Ave	1.149	1.174	0.5000	0.0204	0.0200	2.2	20.0
n-Heptane	Lin1		0.1242		0.0161	0.0200	-19.5	20.0
Trichloroethene	Ave	0.2904	0.2884	0.1500	0.0199	0.0200	-0.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCVIS 240-271291/3 Calibration Date: 03/21/2017 08:55

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3646	0.3244	0.1000	0.0178	0.0200	-11.0	20.0
1,2-Dichloropropane	Ave	0.2586	0.2749	0.1000	0.0213	0.0200	6.3	20.0
Dibromomethane	Ave	0.1366	0.1340		0.0196	0.0200	-1.9	20.0
1,4-Dioxane	Ave	0.0019	0.0018		0.373	0.400	-6.8	50.0
Dichlorobromomethane	Ave	0.3083	0.3120	0.1500	0.0202	0.0200	1.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1217	0.1189		0.0391	0.0400	-2.2	20.0
cis-1,3-Dichloropropene	Ave	0.4173	0.4173	0.1500	0.0200	0.0200	0.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1775	0.1655	0.0500	0.0373	0.0400	-6.7	20.0
Toluene	Ave	1.569	1.529	0.4000	0.0195	0.0200	-2.5	20.0
trans-1,3-Dichloropropene	Ave	0.4735	0.4389	0.1000	0.0185	0.0200	-7.3	20.0
Ethyl methacrylate	Ave	0.3739	0.3587		0.0192	0.0200	-4.1	20.0
1,1,2-Trichloroethane	Ave	0.2514	0.2443	0.1000	0.0194	0.0200	-2.8	20.0
1,3-Dichloropropane	Ave	0.4833	0.4665		0.0193	0.0200	-3.5	20.0
Tetrachloroethene	Ave	0.2715	0.2563	0.1500	0.0189	0.0200	-5.6	20.0
2-Hexanone	Ave	0.1871	0.1785	0.0500	0.0381	0.0400	-4.6	20.0
Chlorodibromomethane	Ave	0.2804	0.2783		0.0199	0.0200	-0.7	20.0
Ethylene Dibromide	Ave	0.2542	0.2345		0.0185	0.0200	-7.7	20.0
Chlorobenzene	Ave	1.019	0.9774	0.3000	0.0192	0.0200	-4.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3365	0.3284		0.0195	0.0200	-2.4	20.0
Ethylbenzene	Ave	0.5389	0.5249		0.0195	0.0200	-2.6	20.0
m-Xylene & p-Xylene	Ave	0.6815	0.6473		0.0190	0.0200	-5.0	20.0
o-Xylene	Ave	0.6870	0.6601		0.0192	0.0200	-3.9	20.0
Styrene	Ave	1.151	1.112	0.3000	0.0193	0.0200	-3.4	20.0
Bromoform	Ave	0.1585	0.1588	0.1000	0.0200	0.0200	0.2	20.0
Isopropylbenzene	Ave	1.634	1.592	0.1000	0.0195	0.0200	-2.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5763	0.5668	0.3000	0.0197	0.0200	-1.6	20.0
Bromobenzene	Ave	0.7422	0.7051		0.0190	0.0200	-5.0	20.0
1,2,3-Trichloropropane	Ave	0.1646	0.1638		0.0199	0.0200	-0.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1326	0.1380		0.0208	0.0200	4.1	20.0
N-Propylbenzene	Ave	0.7686	0.7487		0.0195	0.0200	-2.6	20.0
2-Chlorotoluene	Ave	0.6871	0.6772		0.0197	0.0200	-1.4	20.0
1,3,5-Trimethylbenzene	Ave	2.409	2.290		0.0190	0.0200	-4.9	20.0
4-Chlorotoluene	Ave	0.7390	0.7074		0.0191	0.0200	-4.3	20.0
tert-Butylbenzene	Ave	2.120	1.916		0.0181	0.0200	-9.6	20.0
1,2,4-Trimethylbenzene	Ave	2.556	2.431		0.0190	0.0200	-4.9	20.0
sec-Butylbenzene	Ave	2.700	2.524		0.0187	0.0200	-6.5	20.0
1,3-Dichlorobenzene	Ave	1.389	1.334	0.6000	0.0192	0.0200	-3.9	20.0
4-Isopropyltoluene	Ave	2.363	2.186		0.0185	0.0200	-7.5	20.0
1,4-Dichlorobenzene	Ave	1.458	1.333	0.5000	0.0183	0.0200	-8.5	20.0
n-Butylbenzene	Ave	1.955	1.777		0.0182	0.0200	-9.1	20.0
1,2-Dichlorobenzene	Ave	1.317	1.246	0.4000	0.0189	0.0200	-5.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCVIS 240-271291/3 Calibration Date: 03/21/2017 08:55

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0883	0.0870	0.0500	0.0197	0.0200	-1.5	50.0
1,2,4-Trichlorobenzene	Ave	0.6658	0.6183	0.2000	0.0186	0.0200	-7.1	50.0
Hexachlorobutadiene	Ave	0.2923	0.2326		0.0159	0.0200	-20.4*	20.0
Naphthalene	Ave	1.417	1.300		0.0183	0.0200	-8.3	50.0
1,2,3-Trichlorobenzene	Ave	0.4974	0.4685		0.0188	0.0200	-5.8	20.0
Dibromofluoromethane (Surr)	Ave	0.2319	0.2343		0.0202	0.0200	1.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2489	0.2441		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.333	1.319		0.0198	0.0200	-1.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4845	0.5163		0.0213	0.0200	6.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCV 240-271291/5 Calibration Date: 03/21/2017 09:41

Instrument ID: A3UX16 Calib Start Date: 02/08/2017 14:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 02/08/2017 16:03

Lab File ID: UXM1307.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0255		0.184	0.200	-8.1	20.0
2-Chloro-1,3-butadiene	Ave	0.4633	0.4669		0.0202	0.0200	0.8	20.0
Isopropyl ether	Ave	0.2568	0.2472		0.0193	0.0200	-3.7	20.0
Tert-butyl ethyl ether	Ave	0.8959	0.8419		0.0188	0.0200	-6.0	20.0
Propionitrile	Ave	0.0280	0.0268		0.192	0.200	-4.1	20.0
Ethyl acetate	Ave	0.1764	0.1547		0.0351	0.0400	-12.3	50.0
Methacrylonitrile	Ave	0.1303	0.1196		0.184	0.200	-8.2	20.0
Tert-amyl methyl ether	Ave	0.8004	0.7630		0.0191	0.0200	-4.7	20.0
n-Butanol	Ave	0.0049	0.0045		0.458	0.500	-8.3	20.0
Ethyl acrylate	Ave	0.2472	0.2125		0.0172	0.0200	-14.0	20.0
Methyl methacrylate	Ave	0.1843	0.1532		0.0332	0.0400	-16.9	20.0
2-Nitropropane	Ave	0.0517	0.0349		0.0271	0.0400	-32.4*	20.0
n-Butyl acetate	Ave	0.3561	0.3011		0.0169	0.0200	-15.4	20.0
1-Chlorohexane	Ave	0.4315	0.3950		0.0183	0.0200	-8.5	20.0
Cyclohexanone	Ave	0.0134	0.0118		0.175	0.200	-12.3	20.0
Pentachloroethane	Lin1		0.2065		0.0344	0.0400	-13.9	
1,2,3-Trimethylbenzene	Ave	2.645	2.435		0.0184	0.0200	-8.0	20.0
Benzyl chloride	Lin1		0.2270		0.0162	0.0200	-18.9	
1,3,5-Trichlorobenzene	Ave	0.7612	0.6783		0.0178	0.0200	-10.9	20.0
2-Methylnaphthalene	Ave	0.6525	0.2939		0.0180	0.0400	-55.0*	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab File ID: UXM1309.D Lab Sample ID: MB 240-271291/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 03/21/2017 10:27

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-271291/4	UXM1306.D	03/21/2017 09:18
TB-031517	240-76810-1	UXM1314.D	03/21/2017 13:42
MRC-MW34B-031517	240-76810-2	UXM1315.D	03/21/2017 14:06
MRC-MW34C-031517	240-76810-3	UXM1316.D	03/21/2017 14:29
MRC-MW62A-031517	240-76810-4	UXM1317.D	03/21/2017 14:52
MRC-MW43A-031517	240-76810-5	UXM1318.D	03/21/2017 15:15
MRC-MW62C-031517	240-76810-6	UXM1319.D	03/21/2017 15:38

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-271291/7

Matrix: Water | Lab File ID: UXM1309.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 10:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
71-43-2	Benzene	0.28	U	1.0	0.28
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
75-25-2	Bromoform	0.43	U	1.0	0.43
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
67-64-1	Acetone	1.8	U	10	1.8
79-20-9	Methyl acetate	1.4	U	10	1.4
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
75-09-2	Methylene Chloride	1.17		1.0	0.53
74-87-3	Chloromethane	0.43	U	1.0	0.43
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
74-83-9	Bromomethane	0.42	U	1.0	0.42
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
108-88-3	Toluene	0.23	U	1.0	0.23
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-271291/7

Matrix: Water | Lab File ID: UXM1309.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 10:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.33	U	1.0	0.33
591-78-6	2-Hexanone	1.2	U	10	1.2
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
110-82-7	Cyclohexane	0.44	U	1.0	0.44
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
67-66-3	Chloroform	0.31	U	1.0	0.31
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	110		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-132

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1306.D

Lab ID: LCS 240-271291/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,2,3-Trichlorobenzene	20.0	20.3	102	53-135	
1,2,4-Trichlorobenzene	20.0	18.7	94	53-137	
1,2-Dichlorobenzene	20.0	19.0	95	80-120	
1,3-Dichlorobenzene	20.0	18.8	94	80-120	
1,4-Dichlorobenzene	20.0	18.4	92	80-120	
Chlorobenzene	20.0	18.9	95	80-120	
1,1,1-Trichloroethane	20.0	19.9	99	79-133	
Benzene	20.0	20.3	101	80-120	
cis-1,3-Dichloropropene	20.0	20.0	100	75-120	
Carbon disulfide	20.0	19.8	99	58-160	
Bromoform	20.0	19.9	100	52-157	
Tetrachloroethene	20.0	18.4	92	80-123	
1,1-Dichloroethane	20.0	20.3	101	77-121	
1,2-Dichloroethane	20.0	19.8	99	76-130	
1,2-Dichloropropane	20.0	21.1	105	79-121	
1,1,2-Trichloroethane	20.0	19.7	99	80-120	
Acetone	40.0	26.5	66	46-120	
Methyl acetate	100	98.8	99	65-124	
Dichlorodifluoromethane	20.0	16.6	83	32-140	
4-Methyl-2-pentanone (MIBK)	40.0	39.0	98	60-131	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.4	97	65-151	
Methylene Chloride	20.0	19.8	99	68-136	
Chloromethane	20.0	18.9	94	50-135	
1,2,4-Trimethylbenzene	20.0	18.9	94	77-120	
Bromomethane	20.0	19.8	99	24-160	
Chlorodibromomethane	20.0	19.3	96	68-131	
Toluene	20.0	19.2	96	80-121	
o-Xylene	20.0	18.9	95	80-120	
1,2-Dibromo-3-Chloropropane	20.0	21.5	107	46-140	
Methyl tert-butyl ether	20.0	20.6	103	75-126	
Styrene	20.0	19.1	96	80-120	
trans-1,2-Dichloroethene	20.0	19.3	97	80-123	
1,1,2,2-Tetrachloroethane	20.0	19.7	98	61-130	
Chloroethane	20.0	20.3	102	24-147	
1,1-Dichloroethene	20.0	19.2	96	70-141	
Trichloroethene	20.0	19.6	98	80-122	
2-Hexanone	40.0	32.8	82	56-124	
2-Butanone (MEK)	40.0	31.3	78	54-122	
Ethylbenzene	20.0	19.2	96	80-120	
Isopropylbenzene	20.0	19.3	96	80-120	
Methylcyclohexane	20.0	18.6	93	71-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1306.D

Lab ID: LCS 240-271291/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Trichlorofluoromethane	20.0	21.4	107	56-161	
Xylenes, Total	40.0	37.7	94	80-120	
Cyclohexane	20.0	19.3	96	66-135	
trans-1,3-Dichloropropene	20.0	18.2	91	65-120	
cis-1,2-Dichloroethene	20.0	20.0	100	80-120	
Chloroform	20.0	20.3	101	80-120	
m-Xylene & p-Xylene	20.0	18.8	94	80-120	
Vinyl chloride	20.0	18.9	94	60-129	
Carbon tetrachloride	20.0	20.4	102	69-149	
Dichlorobromomethane	20.0	21.0	105	76-125	
Ethylene Dibromide	20.0	18.5	92	80-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-031517	240-76810-1	109	109	100	108
MRC-MW34B-031517	240-76810-2	103	106	96	103
MRC-MW34C-031517	240-76810-3	104	108	94	106
MRC-MW62A-031517	240-76810-4	106	112	100	112
MRC-MW43A-031517	240-76810-5	105	110	98	107
MRC-MW62C-031517	240-76810-6	105	112	98	104
	MB 240-271291/7	101	101	100	110
	LCS 240-271291/4	104	99	99	106

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Sample No.: ICIS 240-265930/11 Date Analyzed: 02/08/2017 12:27

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM0698.D Heated Purge: (Y/N) N

Calibration ID: 38230

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		949364	5.25	718358	7.93	402378	10.16
UPPER LIMIT		1898728	5.75	1436716	8.43	804756	10.66
LOWER LIMIT		474682	4.75	359179	7.43	201189	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-265930/23		897837	5.25	665536	7.93	355800	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Sample No.: ICIS 240-269649/11 Date Analyzed: 03/08/2017 11:10

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1072.D Heated Purge: (Y/N) N

Calibration ID: 38701

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		986646	5.25	713182	7.93	395520	10.16
UPPER LIMIT		1973292	5.75	1426364	8.43	791040	10.66
LOWER LIMIT		493323	4.75	356591	7.43	197760	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-269649/22		982675	5.24	673177	7.92	383684	10.16
CCVIS 240-271291/3		1029470	5.25	775609	7.93	413333	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Sample No.: CCVIS 240-271291/3 Date Analyzed: 03/21/2017 08:55

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1305.D Heated Purge: (Y/N) N

Calibration ID: 38701

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1029470	5.25	775609	7.93	413333	10.16
UPPER LIMIT		2058940	5.75	1551218	8.43	826666	10.66
LOWER LIMIT		514735	4.75	387805	7.43	206667	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-271291/4		970501	5.24	755894	7.92	418809	10.16
CCV 240-271291/5		952366	5.24	728288	7.92	415543	10.16
MB 240-271291/7		927116	5.25	718070	7.92	385263	10.16
240-76810-1	TB-031517	897557	5.25	703175	7.92	382218	10.16
240-76810-2	MRC-MW34B-031517	925374	5.25	727424	7.92	404964	10.16
240-76810-3	MRC-MW34C-031517	892960	5.25	695865	7.92	392226	10.16
240-76810-4	MRC-MW62A-031517	854045	5.25	651397	7.92	368811	10.16
240-76810-5	MRC-MW43A-031517	832552	5.25	619884	7.92	344784	10.16
240-76810-6	MRC-MW62C-031517	787180	5.25	605697	7.92	330451	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

SAMPLE IDENTIFICATION	MRC-MW34B-031517
COMPOUND	Trichloroethene
COMPOUND AREA	193501
INTERNAL STANDARD AMOUNT (ug)	20
DILUTION FACTOR	1
INTERNAL STANDARD AREA	925374
AVERAGE RRF	0.2904

193501 x 20 x 1 / 925374 x 0.2904 = 14.40 ug/L

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW34B-031517 | Lab Sample ID: 240-76810-2

Matrix: Water | Lab File ID: UXM1315.D

Analysis Method: 8260C | Date Collected: 03/15/2017 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 14:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
71-43-2	Benzene	0.28	U	1.0	0.28
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
75-25-2	Bromoform	0.43	U	1.0	0.43
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
75-34-3	1,1-Dichloroethane	0.68	J	1.0	0.25
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
67-64-1	Acetone	1.8	U	10	1.8
79-20-9	Methyl acetate	1.4	U	10	1.4
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
74-87-3	Chloromethane	0.43	U	1.0	0.43
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
74-83-9	Bromomethane	0.42	U	1.0	0.42
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
108-88-3	Toluene	0.23	U	1.0	0.23
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
1634-04-4	Methyl tert-butyl ether	23		1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.80	J	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
79-01-6	Trichloroethene	14	✓	1.0	0.33
591-78-6	2-Hexanone	1.2	U	10	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW34B-031517 | Lab Sample ID: 240-76810-2

Matrix: Water | Lab File ID: UXM1315.D

Analysis Method: 8260C | Date Collected: 03/15/2017 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 14:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
110-82-7	Cyclohexane	0.44	U	1.0	0.44
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
156-59-2	cis-1,2-Dichloroethene	13		1.0	0.30
67-66-3	Chloroform	1.4		1.0	0.31
75-01-4	Vinyl chloride	1.5		1.0	0.45
56-23-5	Carbon tetrachloride	3.9		1.0	0.35
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-124
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	103		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		63-132

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX16\20170321-63306.b\UXM1315.D
Lims ID: 240-76810-B-2
Client ID: MRC-MW34B-031517
Sample Type: Client
Inject. Date: 21-Mar-2017 14:06:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0063306-013
Operator ID: 001765 Instrument ID: A3UX16

Method: \\ChromNA\Canton\ChromData\A3UX16\20170321-63306.b\8260_16.m
Limit Group: MSV 8260C ICAL
Last Update: 24-Mar-2017 18:16:35 Calib Date: 08-Mar-2017 11:56:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX16\20170308-62949.b\UXM1074.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: bosworthh Date: 21-Mar-2017 14:45:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.248	5.236	0.012	99	925374	20.0	
* 2 Chlorobenzene-d5	117	7.916	7.916	0.000	87	727424	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.157	10.157	0.000	96	404964	20.0	
$ 4 Dibromofluoromethane (Surr	113	4.667	4.666	0.001	93	220603	20.6	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.951	4.951	0.000	98	243661	21.2	
$ 6 Toluene-d8 (Surr)	98	6.611	6.611	0.000	93	931002	19.2	
$ 7 4-Bromofluorobenzene (Surr	95	9.030	9.030	0.000	86	363411	20.6	
82 Chlorobenzene	112		7.951				ND	
106 1,3-Dichlorobenzene	146		10.098				ND	
108 1,4-Dichlorobenzene	146		10.181				ND	
112 1,2-Dichlorobenzene	146		10.548				ND	
114 1,3,5-Trichlorobenzene	180		11.583				ND	
115 1,2,4-Trichlorobenzene	180		12.149				ND	
118 1,2,3-Trichlorobenzene	180		12.635				ND	
9 Dichlorodifluoromethane	85		1.441				ND	
10 Chloromethane	50		1.595				ND	
11 Vinyl chloride	62	1.690	1.702	-0.012	96	26145	1.50	
13 Bromomethane	94		1.998				ND	
14 Chloroethane	64		2.093				ND	
16 Trichlorofluoromethane	101		2.295				ND	
19 1,1-Dichloroethene	96		2.757				ND	
21 Acetone	43	2.793	2.793	0.000	84	8634	0.1159	
20 1,1,2-Trichloro-1,2,2-trif	151		2.793				ND	
24 Carbon disulfide	76		2.947				ND	
27 Methyl acetate	43		3.089				ND	
28 Methylene Chloride	84	3.161	3.172	-0.011	80	3846	0.2563	
32 trans-1,2-Dichloroethene	96	3.410	3.409	0.001	30	11877	0.8004	
31 Methyl tert-butyl ether	73	3.421	3.421	0.000	95	754359	22.7	
34 1,1-Dichloroethane	63	3.765	3.777	-0.012	93	16111	0.6755	
39 cis-1,2-Dichloroethene	96	4.263	4.263	0.000	80	195653	12.7	
40 2-Butanone (MEK)	43		4.275				ND	
47 Chloroform	83	4.536	4.536	0.000	93	29894	1.39	

Report Date: 31-Mar-2017 04:59:32 Chrom Revision: 2.2 22-Mar-2017 08:36:42
Data File: \\ChromNA\Canton\ChromData\A3UX16\20170321-63306.b\UXM1315.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
48 1,1,1-Trichloroethane	97		4.702				ND	
49 Cyclohexane	56		4.749				ND	
51 Carbon tetrachloride	117	4.844	4.844	0.000	98	55951	3.88	
54 Benzene	78		5.010				ND	
53 1,2-Dichloroethane	62		5.010				ND	
58 Trichloroethene	130	5.556	5.556	0.000	98	193501	14.4	
60 Methylcyclohexane	83		5.734				ND	
61 1,2-Dichloropropane	63		5.746				ND	
65 Dichlorobromomethane	83		5.971				ND	
68 cis-1,3-Dichloropropene	75		6.362				ND	
69 4-Methyl-2-pentanone (MIBK	43		6.505				ND	
70 Toluene	91		6.671				ND	
71 trans-1,3-Dichloropropene	75		6.848				ND	
73 1,1,2-Trichloroethane	97		7.014				ND	
75 Tetrachloroethene	164		7.169				ND	
76 2-Hexanone	43		7.240				ND	
78 Chlorodibromomethane	129		7.382				ND	
80 Ethylene Dibromide	107		7.489				ND	
84 Ethylbenzene	106		8.058				ND	
85 m-Xylene & p-Xylene	106		8.165				ND	
86 o-Xylene	106		8.532				ND	
87 Styrene	104		8.544				ND	
88 Bromoform	173		8.722				ND	
89 Isopropylbenzene	105		8.888				ND	
92 1,1,2,2-Tetrachloroethane	83		9.161				ND	
104 1,2,4-Trimethylbenzene	105		9.825				ND	
113 1,2-Dibromo-3-Chloropropan	157		11.319				ND	
S 133 Xylenes, Total	106		16.450				ND	

Reagents:

vm100is_stk_00031	Amount Added:	1.00	Units: uL	Run Reagent
vm100ss_stk_00024	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00089	Amount Added:	0.00	Units:	Run Reagent

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0050 0.0052	0.0058	0.0051	0.0056	0.0055	Ave		0.0054				6.0		20.0			
Benzene	1.2096 1.2191	1.0404	1.1260	1.0851	1.2152	Ave		1.1492			0.5000	6.7		20.0			
1,2-Dichloroethane	0.3307 0.3277	0.3036	0.3133	0.3000	0.3330	Ave		0.3181			0.1000	4.5		20.0			
n-Heptane	+++++ 0.1201	0.7372	0.1861	0.1683	0.1255	Lin1	0.6424	0.1144							0.9910		0.9900
Trichloroethene	0.3361 0.2948	0.2679	0.2804	0.2686	0.2947	Ave		0.2904			0.1500	8.7		20.0			
Methylcyclohexane	0.3399 0.3765	0.3044	0.3820	0.4079	0.3769	Ave		0.3646			0.1000	10.0		20.0			
1,2-Dichloropropane	0.2239 0.2830	0.2410	0.2632	0.2526	0.2879	Ave		0.2586			0.1000	9.5		20.0			
Dibromomethane	0.1592 0.1371	0.1302	0.1268	0.1269	0.1394	Ave		0.1366				9.0		20.0			
1,4-Dioxane	+++++ 0.0019	0.0019	0.0019	0.0019	0.0020	Ave		0.0019				2.0		20.0			
Dichlorobromomethane	0.2862 0.3335	0.2917	0.3040	0.2990	0.3355	Ave		0.3083			0.1500	6.9		20.0			
2-Chloroethyl vinyl ether	0.1188 0.1274	0.1132	0.1187	0.1215	0.1305	Ave		0.1217				5.2		20.0			
cis-1,3-Dichloropropene	0.4494 0.4514	0.3628	0.4071	0.3880	0.4449	Ave		0.4173			0.1500	8.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2019 0.1615	0.1745	0.1749	0.1787	0.1735	Ave		0.1775			0.0500	7.5		20.0			
Toluene	1.5232 1.6752	1.4708	1.5684	1.4985	1.6799	Ave		1.5693			0.4000	5.7		20.0			
trans-1,3-Dichloropropene	0.5258 0.4877	0.4206	0.4624	0.4460	0.4985	Ave		0.4735			0.1000	8.0		20.0			
Ethyl methacrylate	0.3515 0.3673	0.3697	0.3837	0.3778	0.3934	Ave		0.3739				3.9		20.0			
1,1,2-Trichloroethane	0.2584 0.2579	0.2296	0.2463	0.2455	0.2705	Ave		0.2514			0.1000	5.6		20.0			
Tetrachloroethene	0.3025 0.2781	0.2448	0.2677	0.2551	0.2809	Ave		0.2715			0.1500	7.5		20.0			
1,3-Dichloropropane	0.4828 0.4949	0.4654	0.4779	0.4710	0.5075	Ave		0.4833				3.2		20.0			
2-Hexanone	0.1949 0.1656	0.1858	0.1979	0.2053	0.1732	Ave		0.1871			0.0500	8.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

Method 522

1,4 Dioxane (GC/MS SIM) by Method 522

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Lab File ID: Z24230_01.D BFB Injection Date: 03/08/2017

Instrument ID: CHZ.i BFB Injection Time: 10:08

Analysis Batch No.: 114713

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 80.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.3	
175	5.0 - 9.0 % of mass 174	4.9	(7.2) 1
176	>95.0 but <101.0 % of mass 174	66.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-114713/2	Z24230_02.D	03/08/2017	10:20
	IC 200-114713/3	Z24230_03.D	03/08/2017	10:37
	IC 200-114713/4	Z24230_04.D	03/08/2017	10:54
	ICIS 200-114713/5	Z24230_05.D	03/08/2017	11:12
	IC 200-114713/6	Z24230_06.D	03/08/2017	11:29
	IC 200-114713/7	Z24230_07.D	03/08/2017	11:46
	IC 200-114713/8	Z24230_08.D	03/08/2017	12:03
	ICV 200-114713/9	Z24230_09.D	03/08/2017	12:21

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-76810-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-76810-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	2773 110705	6218 242998	14480	27995	48146	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	134256 141434	151964 143621	134009	136068	115570	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Lab Sample ID: ICV 200-114713/9 Calibration Date: 03/08/2017 12:21

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_09.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5752	0.0500	184	200	-7.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Lab File ID: Z24401_03.D BFB Injection Date: 03/22/2017

Instrument ID: CHZ.i BFB Injection Time: 15:37

Analysis Batch No.: 115085

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 80.0 % of mass 95	45.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	80.7	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	>95.0 but <101.0 % of mass 174	77.4	(95.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVL 200-115085/4	Z24401_04.D	03/22/2017	15:48
	LCSD 200-115022/3-A	Z24401_06.D	03/22/2017	16:23
	MB 200-115022/1-A	Z24401_07.D	03/22/2017	16:40
MRC-MW34B-031517	240-76810-2	Z24401_11.D	03/22/2017	17:48
MRC-MW34C-031517	240-76810-3	Z24401_12.D	03/22/2017	18:05
	CCV 200-115085/17	Z24401_17.D	03/22/2017	19:29
	CCV 200-115085/31	Z24401_31.D	03/22/2017	23:26
	LCS 200-115022/2-A	Z24401_35.D	03/23/2017	00:33
	CCV 200-115085/37	Z24401_37.D	03/23/2017	01:06

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCVL 200-115085/4 Calibration Date: 03/22/2017 15:48

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_04.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7735	0.0500	12.4	10.0	23.9	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6057	0.0500	502	500	0.3	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCV 200-115085/17 Calibration Date: 03/22/2017 19:29

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_17.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6844	0.0500	110	100	9.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6853	0.0500	568	500	13.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCV 200-115085/31 Calibration Date: 03/22/2017 23:26

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_31.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6764	0.0500	866	800	8.3	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6760	0.0500	560	500	12.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCV 200-115085/37 Calibration Date: 03/23/2017 01:06

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_37.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6844	0.0500	110	100	9.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6970	0.0500	577	500	15.5	30.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Lab File ID: Z24401_07.D Lab Sample ID: MB 200-115022/1-A

Matrix: Water Date Extracted: 03/20/2017 21:30

Instrument ID: CHZ.i Date Analyzed: 03/22/2017 16:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCSD 200-115022/3-A	Z24401_06.D	03/22/2017 16:23
MRC-MW34B-031517	240-76810-2	Z24401_11.D	03/22/2017 17:48
MRC-MW34C-031517	240-76810-3	Z24401_12.D	03/22/2017 18:05
	LCS 200-115022/2-A	Z24401_35.D	03/23/2017 00:33

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76810-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-115022/1-A

Matrix: Water | Lab File ID: Z24401_07.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 16:40

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	115		46-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24401_35.D

Lab ID: LCS 200-115022/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	8.00	8.01	100	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24401_06.D

Lab ID: LCSD 200-115022/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	8.00	8.26	103	3	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW34B-031517	240-76810-2	99
MRC-MW34C-031517	240-76810-3	103
	MB 200-115022/1-A	115
	LCS 200-115022/2-A	103
	LCSD 200-115022/3-A	104

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76810-1

SDG No.:

Sample No.: ICIS 200-114713/5 Date Analyzed: 03/08/2017 11:12

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24230_05.D Heated Purge: (Y/N) N

Calibration ID: 36785

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224595	3.32				
UPPER LIMIT		336893	3.82				
LOWER LIMIT		112298	2.82				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-114713/9		202920	3.32				
CCVL 200-115085/4		270907	3.25				
LCSD 200-115022/3-A		279648	3.23				
MB 200-115022/1-A		214689	3.23				
240-76810-2	MRC-MW34B-031517	261683	3.24				
240-76810-3	MRC-MW34C-031517	261888	3.25				
CCV 200-115085/17		266198	3.26				
CCV 200-115085/31		258214	3.23				
LCS 200-115022/2-A		247541	3.23				
CCV 200-115085/37		257376	3.23				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

SAMPLE CALCULATION	WATER	
SAMPLE IDENTIFICATION	MRC-MW34B-031517	
COMPOUND	1,4-Dioxane	
COMPOUND AREA	7395	
INTERNAL STANDARD AMOUNT (ng)	0.5	
INTERNAL STANDARD AREA	261683	
AVERAGE RRF	0.6245	
7395 x 0.5 x 1 / 261683 x 0.6245	0.0226	ng/ul
DILUTION FACTOR	1	
SAMPLE VOLUME (ml)	100	
VOLUME EXTRACT (ml)	2	
µl in 1ml	1000	
0.0226256065134969 x 1 x 1000 x 2 / (100)	0.45	ug/L

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW34B-031517 | Lab Sample ID: 240-76810-2

Matrix: Water | Lab File ID: Z24401_11.D

Analysis Method: 522 | Date Collected: 03/15/2017 08:35

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 17:48

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.45	✓	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	99		46-130

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHZ.i\20170322-24401.b\Z24401_11.D
Lims ID: 240-76810-L-2-A
Client ID: MRC-MW34B-031517
Sample Type: Client
Inject. Date: 22-Mar-2017 17:48:30 ALS Bottle#: 9 Worklist Smp#: 11
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 200-0024401-011
Operator ID: TPB Instrument ID: CHZ.i

Method: \\ChromNA\Burlington\ChromData\CHZ.i\20170322-24401.b\522_MOD_Z.m
Limit Group: SV_522_Limits
Last Update: 23-Mar-2017 09:10:42 Calib Date: 08-Mar-2017 12:03:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\CHZ.i\20170308-24230.b\Z24230_08.D

Column 1 : Rxi-5ms (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: bourdeaut Date: 23-Mar-2017 08:16:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 Tetrahydrofuran-d8	46	3.240	3.246	-0.006	99	261683	0.5000	
$ 2 1,4-Dioxane-d8 (Surr)	64	4.162	4.163	-0.001	99	31419	0.0994	
3 1,4-Dioxane	58	4.204	4.204	0.000	91	7395	0.0226	
$ 4 BFB								

Reagents:

SV522ISi_00032 Amount Added: 4.00 Units: uL Run Reagent

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-76810-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

Method RSK-175

Dissolved Gases (GC) by Method RSK_175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Sample No.: STD3 240-251578/5 Date Analyzed: 10/15/2016 15:31

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0101505.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE RT #		
INITIAL CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-251578/5 ICRT		10/15/2016 15:31	RSK0101505.D	3.34		
ICV 240-251578/9		10/15/2016 16:39	RSK0101509.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Sample No.: CCVRT 240-271163/3 Date Analyzed: 03/20/2017 13:05

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0320003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.33		
UPPER LIMIT				3.38		
LOWER LIMIT				3.28		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-271163/3		03/20/2017 13:05	RSK0320003.D	3.33		
MB 240-271163/4		03/20/2017 13:22	RSK0320004.D	3.34		
LCS 240-271163/5		03/20/2017 13:40	RSK0320005.D	3.33		
240-76810-2	MRC-MW34B-031517	03/20/2017 14:14	RSK0320007.D	3.33		
CCV 240-271163/10		03/20/2017 15:06	RSK0320010.D	3.33		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Methane	1.181	1.182	1.182	1.183	1.180	1.182					1.132 - 1.232	1.182
Ethene	1.877	1.879	1.879	1.879	1.877	1.872					1.822 - 1.922	1.877
Acetylene	1.991	1.992	1.992	1.993	1.990	1.988					1.938 - 2.038	1.991
Ethane	2.201	2.199	2.199	2.203	2.197	2.192					1.992 - 2.392	2.199
Propane	4.544	4.546	4.546	4.546	4.537	4.522					4.472 - 4.572	4.540
1,1,1-Trifluoroethane	3.344	3.342	3.339	3.336	3.327						3.239 - 3.439	3.338

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Methane	17282 15031	14572 14891	15021	15273	Ave		15344.8970				6.4		30.0			
Ethene	13272 13787	13164 13601	13786	13941	Ave		13591.7814				2.3		30.0			
Acetylene	6429.5 6415.6	5892.3 6088.3	6401.9	6607.6	Ave		6305.86557				4.2		30.0			
Ethane	13684 14544	13730 14408	14353	14588	Ave		14217.7545				2.9		30.0			
Propane	13814 15013	13864 14908	14731	14670	Ave		14499.9021				3.6		30.0			
1,1,1-Trifluoroethane	7519.7 7756.9	8027.5	7602.5	8141.8	Ave		7809.65873				3.4		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methane	Ave	4466 29592381	28968	149298	1518050	5973962	0.258 1987	1.99	9.94	99.4	397
Ethene	Ave	6023 47472057	45954	240631	2433289	9624127	0.454 3490	3.49	17.5	175	698
Acetylene	Ave	2700 19661432	19034	103400	1067223	4143730	0.420 3229	3.23	16.2	162	646
Ethane	Ave	6652 53866713	51341	268353	2727568	10875652	0.486 3739	3.74	18.7	187	748
Propane	Ave	9839 81662046	75958	403531	4018573	16448361	0.712 5478	5.48	27.4	274	1096
1,1,1-Trifluoroethane	Ave	1961483	4187852	19830722	42474965	80933618	261	522	2608	5217	10434

Curve Type Legend:
Ave = Average

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: ICV 240-251578/9 Calibration Date: 10/15/2016 16:39

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0101509.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	12457		161	199	-18.8	30.0
Ethene	Ave	13592	11508		296	349	-15.3	30.0
Acetylene	Ave	6306	5081		260	323	-19.4	30.0
Ethane	Ave	14218	12173		320	374	-14.4	30.0
Propane	Ave	14500	12390		467	546	-14.6	30.0
1,1,1-Trifluoroethane	Ave	7810	6762		2640	3050	-13.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: ICV 240-251578/9 Calibration Date: 10/15/2016 16:39

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0101509.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.20	1.99	2.39
Propane	4.54	4.47	4.57
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCVRT 240-271163/3 Calibration Date: 03/20/2017 13:05

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0320003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15635		202	199	1.9	30.0
Ethene	Ave	13592	13909		357	349	2.3	30.0
Acetylene	Ave	6306	6774		347	323	7.4	30.0
Ethane	Ave	14218	14186		373	374	-0.2	30.0
Propane	Ave	14500	13565		512	548	-6.4	30.0
1,1,1-Trifluoroethane	Ave	7810	6826		2670	3050	-12.6	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCVRT 240-271163/3 Calibration Date: 03/20/2017 13:05

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0320003.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.87	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.19	1.99	2.39
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.33	3.23	3.43

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCV 240-271163/10 Calibration Date: 03/20/2017 15:06

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0320010.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15412		200	199	0.4	30.0
Ethene	Ave	13592	13171		338	349	-3.1	30.0
Acetylene	Ave	6306	5454		279	323	-13.5	30.0
Ethane	Ave	14218	13812		363	374	-2.9	30.0
Propane	Ave	14500	13005		491	548	-10.3	30.0
1,1,1-Trifluoroethane	Ave	7810	6558		2560	3050	-16.0	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCV 240-271163/10 Calibration Date: 03/20/2017 15:06

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0320010.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.17	1.12	1.22
Ethene	1.87	1.82	1.92
Acetylene	1.98	1.93	2.03
Ethane	2.19	1.99	2.39
Propane	4.53	4.48	4.58
1,1,1-Trifluoroethane	3.33	3.23	3.43

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: MB 240-271163/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0320004.D Lab File ID:(2)

Date Analyzed:(1) 03/20/2017 13:22 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-271163/5	03/20/2017 13:40	
MRC-MW34B-031517	240-76810-2	03/20/2017 14:14	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76810-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-271163/4

Matrix: Water | Lab File ID: RSK0320004.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 33(mL) | Date Analyzed: 03/20/2017 13:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271163 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-85-1	Ethene	0.13	U	0.50	0.13
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	0.080	U	0.50	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	89		76-121

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0320005.D

Lab ID: LCS 240-271163/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Ethene	349	356	102	79-132	
Ethane	374	375	100	76-131	
Methane	199	202	102	80-130	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-PLOT/Q ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TFE1 #
MRC-MW34B-031517	240-76810-2	88
	MB 240-271163/4	89
	LCS 240-271163/5	86

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	76-121

Column to be used to flag recovery values

FORM II RSK-175

SAMPLE CALCULATION - DISSOLVED GASES	WATER
SAMPLE IDENTIFICATION	MRC-MW34B-031517
COMPOUND	Methane
COMPOUND AREA	369587
AVERAGE RRF	15344.897
369587 x 1 / 15344.897	24.1 ug/L

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW34B-031517 Lab Sample ID: 240-76810-2

Matrix: Water Lab File ID: RSK0320007.D

Analysis Method: RSK-175 Date Collected: 03/15/2017 08:35

Sample wt/vol: 33(mL) Date Analyzed: 03/20/2017 14:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 271163 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-85-1	Ethene	0.13	U	0.50	0.13
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	24	J	0.50	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	88		76-121

Sample Calculation - Page 3

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\ZPID\20170320-63275.b\RSK0320007.D
Lims ID: 240-76810-F-2
Client ID: MRC-MW34B-031517
Sample Type: Client
Inject. Date: 20-Mar-2017 14:14:27 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0063202-007
Operator ID: Instrument ID: ZPID

Method: \\ChromNA\Canton\ChromData\ZPID\20170320-63275.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 21-Mar-2017 06:59:58 Calib Date: 15-Oct-2016 16:22:19
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\ZPID\20161015-59048.b\RSK0101508.D

Column 1 : Det: GC FID1A
Process Host: XAWRK012

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1	Methane					
	1.180	1.175	0.005	369587	24.1	
2	Ethylene					
		1.872			ND	
4	Ethane					
		2.192			ND	
$ 5	1,1,1-Trifluoroethane					
	3.333	3.332	0.001	23347887	2989.6	

Reagents:

SARSKSURR_00010 Amount Added: 10.00 Units: mL Run Reagent

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76810-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Methane	17282 15031	14572 14891	15021	15273	Ave		15344.8970				6.4		30.0			
Ethene	13272 13787	13164 13601	13786	13941	Ave		13591.7814				2.3		30.0			
Acetylene	6429.5 6415.6	5892.3 6088.3	6401.9	6607.6	Ave		6305.86557				4.2		30.0			
Ethane	13684 14544	13730 14408	14353	14588	Ave		14217.7545				2.9		30.0			
Propane	13814 15013	13864 14908	14731	14670	Ave		14499.9021				3.6		30.0			
1,1,1-Trifluoroethane	7519.7 7756.9	8027.5	7602.5	8141.8	Ave		7809.65873				3.4		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

Method 680

Polychlorinated Biphenyls (PCBs) (GC/MS) by Method 680

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-76810-1

SDG No.:

Lab File ID: xc0102.D DFTPP Injection Date: 03/01/2017

Instrument ID: CMSX DFTPP Injection Time: 09:09

Analysis Batch No.: 470826

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	59.1
197	Less than 1 % of mass 198	0.5
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	5.9
275	10 - 30% of mass 198	28.9
365	Greater than 1% of mass 198	5.0
441	Present but less than mass 443	15.0 (78.2) 2
442	Greater than 40% of mass 198	94.1
443	17 - 23% of mass 442	19.1 (20.3) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 680-470826/5	xc0105.D	03/01/2017	10:40
	IC 680-470826/6	xc0106.D	03/01/2017	11:09
	IC 680-470826/7	xc0107.D	03/01/2017	11:38
	IC 680-470826/8	xc0108.D	03/01/2017	12:07
	ICISAV 680-470826/18	xc0109.D	03/01/2017	12:36
	ICV 680-470826/9	xc0110.D	03/01/2017	13:05

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-76810-1 Analy Batch No.: 470826

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2017 10:40 Calibration End Date: 03/01/2017 12:36 Calibration ID: 50854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-470826/8	xc0108.D
Level 2	IC 680-470826/7	xc0107.D
Level 3	ICISAV 680-470826/18	xc0109.D
Level 4	IC 680-470826/6	xc0106.D
Level 5	IC 680-470826/5	xc0105.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8416	0.7627	0.7274	0.7606	0.8593	Ave		0.7903				7.2		20.0			
Dichlorobiphenyl	0.5708	0.5190	0.5508	0.5792	0.6622	Ave		0.5764				9.2		20.0			
Trichlorobiphenyl	0.4207	0.3956	0.3850	0.4065	0.4645	Ave		0.4144				7.5		20.0			
PCB-104			0.3635			Ave		0.3635						30.0			
Tetrachlorobiphenyl	0.3178	0.2888	0.2922	0.3061	0.3378	Ave		0.3085				6.5		20.0			
Pentachlorobiphenyl	0.2712	0.2483	0.2566	0.2684	0.2960	Ave		0.2681				6.8		20.0			
PCB-77			0.4422			Ave		0.4422						30.0			
Hexachlorobiphenyl	0.2740	0.2570	0.2623	0.2761	0.2992	Ave		0.2737				6.0		20.0			
Heptachlorobiphenyl	0.2480	0.2272	0.2314	0.2438	0.2678	Ave		0.2436				6.6		20.0			
Octachlorobiphenyl	0.2242	0.2042	0.2047	0.2209	0.2397	Ave		0.2187				6.8		20.0			
PCB-208			0.0838			Ave		0.0838						30.0			
Nonachlorobiphenyl			0.0638			Ave		0.0437				4.1		20.0			
DCB Decachlorobiphenyl	0.0450	0.0411	0.0430	0.0436	0.0457	Ave		0.0437				4.1		20.0			
gamma-BHC-13C6 (Surr)	0.1735	0.1703	0.1703	0.1835	0.1495	Ave		0.1694				7.3		50.0			
Decachlorobiphenyl-13C12	0.0541	0.0574	0.0574	0.0574	0.0609	Ave		0.0574				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Savannah Job No.: 240-76810-1 Analy Batch No.: 470826

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2017 10:40 Calibration End Date: 03/01/2017 12:36 Calibration ID: 50854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-470826/8	xc0108.D
Level 2	IC 680-470826/7	xc0107.D
Level 3	ICISAV 680-470826/18	xc0109.D
Level 4	IC 680-470826/6	xc0106.D
Level 5	IC 680-470826/5	xc0105.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Monochlorobiphenyl	CRY	Ave	3151	13342	26104	56643	163189	0.100	0.500	1.00	2.00	5.00
Dichlorobiphenyl	CRY	Ave	2137	9079	19768	43138	125759	0.100	0.500	1.00	2.00	5.00
Trichlorobiphenyl	CRY	Ave	1575	6919	13816	30274	88206	0.100	0.500	1.00	2.00	5.00
PCB-104	CRY	Ave			26087					2.00		
Tetrachlorobiphenyl	CRY	Ave	2380	10102	20971	45599	128289	0.200	1.00	2.00	4.00	10.0
Pentachlorobiphenyl	CRY	Ave	2031	8685	18421	39972	112408	0.200	1.00	2.00	4.00	10.0
PCB-77	CRY	Ave			31741					2.00		
Hexachlorobiphenyl	CRY	Ave	2052	8992	18825	41121	113658	0.200	1.00	2.00	4.00	10.0
Heptachlorobiphenyl	CRY	Ave	2786	11920	24915	54470	152551	0.300	1.50	3.00	6.00	15.0
Octachlorobiphenyl	CRY	Ave	2518	10716	22044	49361	136549	0.300	1.50	3.00	6.00	15.0
PCB-208	CRY	Ave			12030					4.00		
Nonachlorobiphenyl	CRY	Ave			11445					5.00		
DCB Decachlorobiphenyl	CRY	Ave	842	3591	7713	16249	43364	0.500	2.50	5.00	10.0	25.0
gamma-BHC-13C6 (Surr)	CRY	Ave	1299	5958	12225	27332	56781	0.200	1.00	2.00	4.00	10.0
Decachlorobiphenyl-13C12	CRY	Ave	1013	5020	10297	21381	46261	0.500	2.50	5.00	10.0	20.0

Curve Type Legend:
Ave = Average ISTD

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-76810-1

SDG No.:

Lab Sample ID: ICV 680-470826/9 Calibration Date: 03/01/2017 13:05

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc0110.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.6886		0.871	1.00	-12.9	20.0
Dichlorobiphenyl	Ave	0.5764	0.4994		0.866	1.00	-13.4	20.0
Trichlorobiphenyl	Ave	0.4144	0.3972		0.958	1.00	-4.2	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.2959		1.92	2.00	-4.1	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2467		1.84	2.00	-8.0	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2514		1.84	2.00	-8.2	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2286		2.82	3.00	-6.2	20.0
Octachlorobiphenyl	Ave	0.2187	0.2104		2.89	3.00	-3.8	20.0
Nonachlorobiphenyl	Ave	0.0638	0.0837		7.66	4.00	31.2*	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0433		4.95	5.00	-0.9	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0588		5.12	5.00	2.4	20.0

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-76810-1

SDG No.:

Lab File ID: xc2702.D DFTPP Injection Date: 03/27/2017

Instrument ID: CMSX DFTPP Injection Time: 15:18

Analysis Batch No.: 473797

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	56.6
197	Less than 1 % of mass 198	1.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	7.0
275	10 - 30% of mass 198	29.2
365	Greater than 1% of mass 198	6.6
441	Present but less than mass 443	16.6 (89.5) 2
442	Greater than 40% of mass 198	102.4
443	17 - 23% of mass 442	18.5 (18.1) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-473797/2	xc2703.D	03/27/2017	15:49
	CCVIS 680-473797/3	xc2704.D	03/27/2017	16:20
	MB 680-473186/6-A	xc2706.D	03/27/2017	17:18
	LCS 680-473186/7-A	xc2707.D	03/27/2017	17:47
	LCSD 680-473186/8-A	xc2708.D	03/27/2017	18:16
MRC-MW62A-031517	240-76810-4	xc2709.D	03/27/2017	18:45
MRC-MW43A-031517	240-76810-5	xc2710.D	03/27/2017	19:14
MRC-MW62C-031517	240-76810-6	xc2711.D	03/27/2017	19:42
	CCV 680-473797/13	xc2714.D	03/27/2017	21:08

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCVIS 680-473797/3 Calibration Date: 03/27/2017 16:20

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc2704.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.7921		1.00	1.00	0.2	20.0
Dichlorobiphenyl	Ave	0.5764	0.5940		1.03	1.00	3.0	20.0
Trichlorobiphenyl	Ave	0.4144	0.4137		0.998	1.00	-0.2	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.3239		2.10	2.00	5.0	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2734		2.04	2.00	2.0	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2820		2.06	2.00	3.0	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2425		2.99	3.00	-0.5	20.0
Octachlorobiphenyl	Ave	0.2187	0.2165		2.97	3.00	-1.0	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0428		4.91	5.00	-1.9	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0558		4.86	5.00	-2.8	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-76810-1

SDG No.:

Lab Sample ID: CCV 680-473797/13 Calibration Date: 03/27/2017 21:08

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc2714.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.7564		0.957	1.00	-4.3	20.0
Dichlorobiphenyl	Ave	0.5764	0.5569		0.966	1.00	-3.4	20.0
Trichlorobiphenyl	Ave	0.4144	0.3988		0.962	1.00	-3.8	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.3036		1.97	2.00	-1.6	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2614		1.95	2.00	-2.5	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2725		1.99	2.00	-0.4	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2348		2.89	3.00	-3.6	20.0
Octachlorobiphenyl	Ave	0.2187	0.2132		2.92	3.00	-2.5	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0434		4.97	5.00	-0.6	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0558		4.86	5.00	-2.9	20.0

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-76810-1

SDG No.:

Lab File ID: xc2706.D Lab Sample ID: MB 680-473186/6-A

Matrix: Water Date Extracted: 03/21/2017 13:57

Instrument ID: CMSX Date Analyzed: 03/27/2017 17:18

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-473186/7-A	xc2707.D	03/27/2017 17:47
	LCSD 680-473186/8-A	xc2708.D	03/27/2017 18:16
MRC-MW62A-031517	240-76810-4	xc2709.D	03/27/2017 18:45
MRC-MW43A-031517	240-76810-5	xc2710.D	03/27/2017 19:14
MRC-MW62C-031517	240-76810-6	xc2711.D	03/27/2017 19:42

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-76810-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-473186/6-A

Matrix: Water | Lab File ID: xc2706.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 03/21/2017 13:57

Sample wt/vol: 1000(mL) | Date Analyzed: 03/27/2017 17:18

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 473797 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.0054	U	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0065	U	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	100		25-113

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-76810-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc2707.D

Lab ID: LCS 680-473186/7-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	6.30	105	62-130	
Hexachlorobiphenyl	4.00	4.05	101	62-130	
Nonachlorobiphenyl	10.0	18.8	188	70-195	
Octachlorobiphenyl	6.00	6.21	104	64-130	
Monochlorobiphenyl	2.00	1.82	91	42-130	
DCB Decachlorobiphenyl	10.0	10.3	103	59-130	
Dichlorobiphenyl	2.00	1.93	97	49-130	
Pentachlorobiphenyl	4.00	4.11	103	63-130	
Tetrachlorobiphenyl	4.00	4.13	103	54-130	
Trichlorobiphenyl	2.00	1.97	98	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-76810-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc2708.D

Lab ID: LCSD 680-473186/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	5.39	90	16	40	62-130	
Hexachlorobiphenyl	4.00	3.68	92	10	40	62-130	
Nonachlorobiphenyl	10.0	17.2	172	9	40	70-195	
Octachlorobiphenyl	6.00	5.51	92	12	40	64-130	
Monochlorobiphenyl	2.00	1.63	82	11	40	42-130	
DCB Decachlorobiphenyl	10.0	9.53	95	8	40	59-130	
Dichlorobiphenyl	2.00	1.76	88	10	40	49-130	
Pentachlorobiphenyl	4.00	3.64	91	12	40	63-130	
Tetrachlorobiphenyl	4.00	3.79	95	9	40	54-130	
Trichlorobiphenyl	2.00	1.80	90	9	40	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-76810-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	13CDCB #
MRC-MW62A-031517	240-76810-4	75
MRC-MW43A-031517	240-76810-5	85
MRC-MW62C-031517	240-76810-6	88
	MB 680-473186/6-A	100
	LCS 680-473186/7-A	102
	LCSD 680-473186/8-A	93

	QC LIMITS
13CDCB = Decachlorobiphenyl-13C12	25-113

Column to be used to flag recovery values

FORM II 680

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-76810-1

SDG No.:

Instrument ID: CMSX Calibration Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calibration End Date: 03/01/2017 12:36

Calibration ID: 50854

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		26910	10.11	27530	16.20		
UPPER LIMIT		40365	10.61	41295	16.70		
LOWER LIMIT		13455	9.61	13765	15.70		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-470826/9		27104	10.11	28137	16.20		
CCVIS 680-473797/3		32482	10.11	32015	16.22		
MB 680-473186/6-A		29525	10.11	25321	16.22		
LCS 680-473186/7-A		28540	10.11	26583	16.20		
LCSD 680-473186/8-A		31882	10.11	32523	16.20		
240-76810-4	MRC-MW62A-031517	34710	10.10	37593	16.20		
240-76810-5	MRC-MW43A-031517	34521	10.11	35370	16.20		
240-76810-6	MRC-MW62C-031517	32227	10.11	32047	16.20		
CCV 680-473797/13		31448	10.11	32734	16.20		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-76810-1

SDG No.:

Sample No.: CCVIS 680-473797/3 Date Analyzed: 03/27/2017 16:20

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm)

Lab File ID (Standard): xc2704.D Heated Purge: (Y/N) N

Calibration ID: 50854

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		32482	10.11	32015	16.22		
UPPER LIMIT		42227	10.61	41620	16.72		
LOWER LIMIT		22737	9.61	22411	15.72		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-473186/6-A		29525	10.11	25321	16.22		
LCS 680-473186/7-A		28540	10.11	26583	16.20		
LCSD 680-473186/8-A		31882	10.11	32523	16.20		
240-76810-4	MRC-MW62A-031517	34710	10.10	37593	16.20		
240-76810-5	MRC-MW43A-031517	34521	10.11	35370	16.20		
240-76810-6	MRC-MW62C-031517	32227	10.11	32047	16.20		
CCV 680-473797/13		31448	10.11	32734	16.20		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

SAMPLE IDENTIFICATION	MRC-MW-43A-031517	
COMPOUND	Monochlorobiphenyl	
COMPOUND AREA	9551	
INTERNAL STANDARD AMOUNT (ng)	0.75	
DILUTION FACTOR	1	
INTERNAL STANDARD AREA	35370	
AVERAGE RRF	0.7903	
9551 x 0.75 x 1 / 35370 x 0.7903	0.2563	ng/ml
SAMPLE VOLUME (ml)	501.05	
VOLUME EXTRACT (ml)	0.5	
VOLUME INJECTED (µl)	1	
conversion	1000	
0.256261324625546 x 0.5 / (501.05 x 1) x 1000	0.256	ug/L

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-76810-1

SDG No.:

Client Sample ID: MRC-MW43A-031517 | Lab Sample ID: 240-76810-5

Matrix: Water | Lab File ID: xc2710.D

Analysis Method: 680 | Date Collected: 03/15/2017 13:00

Extract. Method: 680 | Date Extracted: 03/21/2017 13:57

Sample wt/vol: 1002.3(mL) | Date Analyzed: 03/27/2017 19:14

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 473797 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.023	J	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.26		0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.061	J	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.20		0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.050	J	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0070	J	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	85		25-113

TestAmerica Savannah
Target Compound Quantitation Report

Data File: \\ChromNA\Savannah\ChromData\CMSX\20170327-37370.b\xc2710.D
Lims ID: 240-76810-E-5-A
Client ID: MRC-MW43A-031517
Sample Type: Client
Inject. Date: 27-Mar-2017 19:14:30 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 240-76810-E-5-A
Misc. Info.: 680-0037370-009
Operator ID: Instrument ID: CMSX

Method: \\ChromNA\Savannah\ChromData\CMSX\20170327-37370.b\680_CMSX.m
Limit Group: 680 - AQ
Last Update: 28-Mar-2017 14:16:53 Calib Date: 01-Mar-2017 12:36:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Savannah\ChromData\CMSX\20170301-36849.b\xc0109.D

Column 1 : HP-5MS (0.25 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: davisn Date: 28-Mar-2017 14:16:53

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
A 23 Total Monochlorobiphenyls	188	7.683	7.228 - 8.138		0	9551	0.2563	
A 24 Total Dichlorobiphenyls	222	9.369	8.439 - 10.298		0	1668	0.0614	
* 5 Phenanthrene-d10	188	10.111	10.112	-0.001	100	34521	0.7500	
A 25 Total Trichlorobiphenyls	256	10.981	9.662 - 12.300		0	138	0.007061	
A 26 Total Tetrachlorobiphenyls	292	12.449	10.747 - 14.151		0	726	0.0499	
A 27 Total Pentachlorobiphenyls	326	13.845	12.008 - 15.681		0	2530	0.2001	
A 28 Total Hexachlorobiphenyls	360	15.132	13.180 - 17.083		0	304	0.0235	
* 15 Chrysene-d12	240	16.199	16.216	-0.017	100	35370	0.7500	
$ 22 Decachlorobiphenyl-13C12	510	19.355	19.356	-0.001	44	5778	2.13	

Reagents:

SM-680istd_00041 Amount Added: 30.00 Units: uL Run Reagent

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-76810-1 Analy Batch No.: 470826

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2017 10:40 Calibration End Date: 03/01/2017 12:36 Calibration ID: 50854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-470826/8	xc0108.D
Level 2	IC 680-470826/7	xc0107.D
Level 3	ICISAV 680-470826/18	xc0109.D
Level 4	IC 680-470826/6	xc0106.D
Level 5	IC 680-470826/5	xc0105.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8416	0.7627	0.7274	0.7606	0.8593	Ave		0.7903				7.2		20.0			
Dichlorobiphenyl	0.5708	0.5190	0.5508	0.5792	0.6622	Ave		0.5764				9.2		20.0			
Trichlorobiphenyl	0.4207	0.3956	0.3850	0.4065	0.4645	Ave		0.4144				7.5		20.0			
PCB-104			0.3635			Ave		0.3635						30.0			
Tetrachlorobiphenyl	0.3178	0.2888	0.2922	0.3061	0.3378	Ave		0.3085				6.5		20.0			
Pentachlorobiphenyl	0.2712	0.2483	0.2566	0.2684	0.2960	Ave		0.2681				6.8		20.0			
PCB-77			0.4422			Ave		0.4422						30.0			
Hexachlorobiphenyl	0.2740	0.2570	0.2623	0.2761	0.2992	Ave		0.2737				6.0		20.0			
Heptachlorobiphenyl	0.2480	0.2272	0.2314	0.2438	0.2678	Ave		0.2436				6.6		20.0			
Octachlorobiphenyl	0.2242	0.2042	0.2047	0.2209	0.2397	Ave		0.2187				6.8		20.0			
PCB-208			0.0838			Ave		0.0838						30.0			
Nonachlorobiphenyl			0.0638			Ave		0.0437				4.1		20.0			
DCB Decachlorobiphenyl	0.0450	0.0411	0.0430	0.0436	0.0457	Ave		0.0437				4.1		20.0			
gamma-BHC-13C6 (Surr)	0.1735	0.1703	0.1703	0.1835	0.1495	Ave		0.1694				7.3		50.0			
Decachlorobiphenyl-13C12	0.0541	0.0574	0.0574	0.0574	0.0609	Ave		0.0574				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG No.:

Project: MRC 2017 GW

Client Sample ID	Lab Sample ID
MRC-MW34B-031517	240-76810-2

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00093

Analyte	ICV 240-271366/4 03/21/2017 09:13				CCV 240-271366/18 03/21/2017 10:13				CCV 240-271366/30 03/21/2017 11:40			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24400		25000	98	50300		50000	101	50700		50000	101
Magnesium	25800		25000	103	50400		50000	101	50700		50000	101
Potassium	24800		25000	99	49600		50000	99	50500		50000	101
SiO2, Silica	6600		6420	103	11300		10700	105	11300		10700	105
Sodium	25000		25000	100	49700		50000	99	50300		50000	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

ICV Source: MTTRCRIC_00045 Concentration Units: ug/L

CCV Source: MTTRCRIC_00045

Analyte	ICVL 240-271366/6 03/21/2017 09:22				CCVL 240-271366/36 03/21/2017 12:05							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5010		5000	100	5030		5000	101				
Magnesium	5310		5000	106	5450		5000	109				
Potassium	4910	J	5000	98	5110		5000	102				
SiO2, Silica	850	J	1070	79	847	J	1070	79				
Sodium	4970	J	5000	99	5040		5000	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-271366/5 03/21/2017 09:17		CCB 240-271366/19 03/21/2017 10:17		CCB 240-271366/31 03/21/2017 11:44			
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U		
Magnesium	5000	230	U	230	U	230	U		
Potassium	5000	70	U	70	U	416	J		
SiO2, Silica	1100	140	U	140	U	140	U		
Sodium	5000	330	U	330	U	330	U		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-271221/1-A

Instrument Code: I9 Batch No.: 271366

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	710	U		6010C
7440-09-7	Potassium	70	U		6010C
7439-95-4	Magnesium	230	U		6010C
7440-23-5	Sodium	330	U		6010C
14808-60-7	SiO2, Silica	140	U		6010C

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: ICSA 240-271366/8 Instrument ID: I9

Lab File ID: I9032117A.asc ICS Source: MTTRICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**483870**	**97**
Magnesium	**500000**	**519340**	**104**
Potassium		**72.9**	
Sodium		**258**	
Aluminum	*500000*	*521310*	*104*
Antimony		*-0.190*	
Arsenic		*2.59*	
Barium		*0.314*	
Beryllium		*0.0222*	
Boron		*-5.22*	
Cadmium		*0.531*	
Chromium		*3.92*	
Cobalt		*-0.581*	
Copper		*-1.55*	
Iron	*200000*	*196930*	*98*
Lead		*5.53*	
Lithium		*9.32*	
Manganese		*2.96*	
Molybdenum		*-2.50*	
Nickel		*0.880*	
Selenium		*6.86*	
Silicon		*-93.9*	
Silver		*-0.323*	
Strontium		*6.25*	
Thallium		*1.15*	
Tin		*3.62*	
Titanium		*-0.988*	
Vanadium		*-1.88*	
Zinc		*0.0291*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Lab Sample ID: ICSAB 240-271366/9 Instrument ID: I9

Lab File ID: I9032117A.asc ICS Source: MTICPICSABW_00013

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**480750**	**96**
Magnesium	**500000**	**520570**	**104**
Potassium	**10000**	**10924**	**109**
Sodium	**10000**	**11047**	**110**
Aluminum	*500000*	*516910*	*103*
Antimony	*1000*	*1033*	*103*
Arsenic	*1000*	*1057*	*106*
Barium	*500*	*510*	*102*
Beryllium	*500*	*498*	*100*
Boron	*500*	*512*	*102*
Cadmium	*1000*	*1059*	*106*
Chromium	*500*	*488*	*98*
Cobalt	*500*	*517*	*103*
Copper	*500*	*521*	*104*
Iron	*200000*	*196620*	*98*
Lead	*1000*	*909*	*91*
Lithium	*500*	*554*	*111*
Manganese	*500*	*497*	*99*
Molybdenum	*1000*	*954*	*95*
Nickel	*1000*	*1032*	*103*
Selenium	*1000*	*1041*	*104*
Silicon	*10000*	*9910*	*99*
Silver	*1000*	*1076*	*108*
Strontium	*1500*	*1469*	*98*
Thallium	*1000*	*977*	*98*
Tin	*500*	*535*	*107*
Titanium	*500*	*511*	*102*
Vanadium	*500*	*486*	*97*
Zinc	*1000*	*1076*	*108*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 190-13000-A-1-B MS

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	91500		44000		50000	94	75-125		6010C
Magnesium	52300		4000	J	50000	97	75-125		6010C
SiO2, Silica	2980		140	U	2140	139	75-125	F1	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 190-13000-A-1-C MSD

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	93000		50000	97	75-125	2	20		6010C
Magnesium	53000		50000	98	75-125	1	20		6010C
SiO2, Silica	2710		2140	127	75-125	9	20	F1	6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: Lab ID: 190-13000-A-1-A PDS

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
SiO2, Silica	2850		140	U	2140	133	80-120	W	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-271221/2-A

Lab Name: TestAmerica Canton Job No.: 240-76810-1

Sample Matrix: Water LCS Source: MTICP2A_00068

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	44800		90	80	120		6010C
Potassium	50000	43700		87	80	120		6010C
Magnesium	50000	45000		90	80	120		6010C
Sodium	50000	43900		88	80	120		6010C
SiO2, Silica	2140	1900		89	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 190-13000-A-1-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-76810-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	44000		44300		0.001		6010C
Magnesium	4000	J	4100	J	NC		6010C
SiO2, Silica	140	U	700	U	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	710
Magnesium	279.078	5000	230
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	710
Magnesium	279.078	5000	230
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 02/13/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.029315					0.096009
Antimony		-0.000073			-0.000451			-0.000051							0.002146
Arsenic		0.000034			-0.00051	0.000538			-0.000355	0.001291					
Barium															
Beryllium															0.0000165
Boron															
Cadmium			0.006886					0.000001							
Calcium															
Chromium															
Cobalt													0.002313		
Copper				0.000018	0.000453			-0.000001					-0.000463		
Iron													-		
Lead		-0.000122					0.000515	0.000028			0.00007657	0.000088			
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000799			0.000075							
Potassium															
Selenium		-0.000010							0.000643						
Silver															
Sodium															
Strontium															
Thallium		-0.000010			0.001132			0.000007	0.001101				-0.000497		-0.0005212
Tin															
Titanium															
Vanadium								0.000032							
Zinc						-0.000286									

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-76810-1

SDG No.:

Instrument ID: I9 Date: 08/22/2016 11:36

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		800000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-271221/1-A	03/20/2017 14:00	271221		50	50
LCS 240-271221/2-A	03/20/2017 14:00	271221		50	50
190-13000-A-1-B MS	03/20/2017 14:00	271221		50	50
190-13000-A-1-C MSD	03/20/2017 14:00	271221		50	50
240-76810-2	03/20/2017 14:00	271221		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 03/21/2017 09:00 End Date: 03/21/2017 15:26

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ICIS 240-271366/1	1		09:00	X	X	X	X	X																						
CALSTD 240-271366/2 IC			09:05	X	X	X	X	X																						
CALSTD 240-271366/3 IC			09:09	X	X	X	X	X																						
ICV 240-271366/4	1		09:13	X	X	X	X	X																						
ICB 240-271366/5	1		09:17	X	X	X	X	X																						
ICVL 240-271366/6	1		09:22	X	X	X	X	X																						
ZZZZZZ			09:26																											
ICSA 240-271366/8	1		09:30	X	X	X	X																							
ICSAB 240-271366/9	1		09:34	X	X	X	X																							
CCV 240-271366/10			09:38																											
CCB 240-271366/11			09:42																											
ZZZZZZ			09:47																											
ZZZZZZ			09:51																											
ZZZZZZ			09:56																											
ZZZZZZ			10:00																											
ZZZZZZ			10:04																											
ZZZZZZ			10:08																											
CCV 240-271366/18	1		10:13	X	X	X	X	X																						
CCB 240-271366/19	1		10:17	X	X	X	X	X																						
MB 240-271221/1-A	1	R	10:21	X	X	X	X	X																						
LCS 240-271221/2-A	1	R	10:25	X	X	X	X	X																						
ZZZZZZ			10:29																											
190-13000-A-1-A SD ^5	5	R	10:38	X		X		X																						
190-13000-A-1-B MS	1	R	11:15	X		X		X																						
190-13000-A-1-C MSD	1	R	11:19	X		X		X																						
ZZZZZZ			11:24																											
240-76810-2	1	R	11:28	X	X	X	X	X																						
190-13000-A-1-A PDS	1	R	11:32					X																						
ZZZZZZ			11:36																											
CCV 240-271366/30	1		11:40	X	X	X	X	X																						
CCB 240-271366/31	1		11:44	X	X	X	X	X																						
ZZZZZZ			11:49																											
ZZZZZZ			11:53																											
CCV 240-271366/34			11:57																											
CCB 240-271366/35			12:01																											
CCVL 240-271366/36	1		12:05	X	X	X	X	X																						
ZZZZZZ			12:31																											
ZZZZZZ			12:35																											
ZZZZZZ			12:39																											
ZZZZZZ			12:43																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 03/21/2017 09:00 End Date: 03/21/2017 15:26

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			12:47																											
ZZZZZZ			12:51																											
ZZZZZZ			12:55																											
ZZZZZZ			12:59																											
ZZZZZZ			13:04																											
ZZZZZZ			13:08																											
CCV 240-271366/47			13:12																											
CCB 240-271366/48			13:16																											
ZZZZZZ			13:21																											
ZZZZZZ			13:25																											
ZZZZZZ			13:29																											
ZZZZZZ			13:34																											
ZZZZZZ			13:38																											
ZZZZZZ			13:43																											
ZZZZZZ			13:48																											
ZZZZZZ			13:52																											
ZZZZZZ			13:57																											
ZZZZZZ			14:01																											
CCV 240-271366/59			14:05																											
CCB 240-271366/60			14:09																											
ZZZZZZ			14:13																											
ZZZZZZ			14:17																											
ZZZZZZ			14:21																											
ZZZZZZ			14:25																											
ZZZZZZ			14:30																											
ZZZZZZ			14:34																											
ZZZZZZ			14:38																											
ZZZZZZ			14:43																											
ZZZZZZ			14:47																											
ZZZZZZ			14:51																											
CCV 240-271366/71			14:56																											
CCB 240-271366/72			15:00																											
ZZZZZZ			15:04																											
ZZZZZZ			15:09																											
ZZZZZZ			15:13																											
ZZZZZZ			15:17																											
CCV 240-271366/77			15:22																											
CCB 240-271366/78			15:26																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 271221 Batch Start Date: 03/20/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 03/20/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00068	MTICP1 00061	MTICP2A 00068	MTTMHCL 00148
MB 240-271221/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-271221/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
190-13000-A-1 MS		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
190-13000-A-1 MSD		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-76810-O-2	MRC-MW34B-031517	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00112
MB 240-271221/1		3005A, 6010C		1 mL
LCS 240-271221/2		3005A, 6010C		1 mL
190-13000-A-1 MS		3005A, 6010C	R	1 mL
190-13000-A-1 MSD		3005A, 6010C	R	1 mL
240-76810-O-2	MRC-MW34B-031517	3005A, 6010C	R	1 mL

Batch Notes	
Filter Paper ID	9719597
Hot Block ID	HB0
Pipette ID	MP1
Digestion Tube/Cup ID	1605323

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Sample Calculation - Page 1

Client Sample ID: MRC-MW34B-031517 Lab Sample ID: 240-76810-2

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG ID.:

Matrix: Water Date Sampled: 03/15/2017 08:35

Reporting Basis: WET Date Received: 03/16/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	16000	5000	710	ug/L			1	6010C
7440-09-7	Potassium	7500	5000	70	ug/L			1	6010C
7439-95-4	Magnesium	13000	5000	230	ug/L			1	6010C
7440-23-5	Sodium	83000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	9300	1100	140	ug/L			1	6010C

Calcium = 16,000 ug/L

Sample Name: 240-76810-o-2-a Acquired: 3/21/2017 11:28:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v180) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_1826	Ba4554	Be3130	Ca3179	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.23803	918.53	5.0723	28.141	158.52	11.661	15680.	.3296
Stddev	.09191	17.48	.5786	.520	.28	.195	38.	.1627
%RSD	38.613	1.9033	11.407	1.8482	.17913	1.6733	.23942	49.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(In2306)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	137.70	.72806	38.842	420.03	7547.0	10.823	13077.	531.84
Stddev	1.73	.26710	.691	1.88	47.9	1.744	82.	.47
%RSD	1.2578	36.686	1.7796	.44826	.63516	16.118	.62341	.08911
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2175	Se1960	Sn1899	Ti3372
IS Ref	(Y_2243)	(Y_3710)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(In2306)	(Y_3600)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.9481	82542.	176.53	-.33078	2.637	3.8565	.37751	14.201
Stddev	.2244	79.	2.37	.64555	1.068	1.1830	.23344	2.259
%RSD	11.520	.09538	1.3421	195.16	40.50	30.676	61.838	15.906
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: 240-76810-o-2-a Acquired: 3/21/2017 11:28:03 Type: Unk
Method: ICP I9 6010 200.7 Methods(v180) Mode: CONC Corr. Factor: 1.000000
User: analyst Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2908	Zn2062	Si2516	Sr3464
IS Ref	(In2306)	(Y_3710)	(In2306)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb
Avg	.75085	1.6648	375.15	4338.1	129.31
Stddev	.56973	1.0861	4.81	11.6	2.32
%RSD	75.879	65.236	1.2809	.26706	1.7924
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5705.6	4158.4	51591.	6909.9
Stddev	6.2	3.3	63.	17.5
%RSD	.10929	.07929	.12158	.25255
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	89.966%	99.093%	98.036%	102.75%
Range				

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-271221/1-A	03/20/2017 14:00	271221		50	50
LCS 240-271221/2-A	03/20/2017 14:00	271221		50	50
190-13000-A-1-B MS	03/20/2017 14:00	271221		50	50
190-13000-A-1-C MSD	03/20/2017 14:00	271221		50	50
240-76810-2	03/20/2017 14:00	271221		50	50

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG No.:

Project: MRC 2017 GW

Client Sample ID	Lab Sample ID
MRC-MW34B-031517	240-76810-2

Comments:

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Analyst: LKG Batch Start Date: 11/24/2016

Reporting Units: mg/L Analytical Batch No.: 256972

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	12:13	Chloride	52.6	50.0	105	90-110		WCICLCS_00582
			Sulfate	52.7	50.0	105	90-110		WCICLCS_00582
11	ICB	12:33	Chloride	0.41				U	
			Sulfate	0.137				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Analyst: LKG Batch Start Date: 11/24/2016

Reporting Units: mg/L Analytical Batch No.: 256973

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	12:13	Nitrite as N	2.72	2.50	109	90-110		WCICLCS_00582
			Nitrate as N	2.52	2.50	101	90-110		WCICLCS_00582
11	ICB	12:33	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Analyst: LKG Batch Start Date: 03/16/2017

Reporting Units: mg/L Analytical Batch No.: 270914

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:33	Chloride	52.2	50.0	104	90-110		WCICCCV_00764
			Sulfate	53.4	50.0	107	90-110		WCICCCV_00764
2	CCB	15:53	Chloride	0.41				U	
			Sulfate	0.13				U	
13	CCV	19:34	Chloride	52.3	50.0	105	90-110		WCICCCV_00764
			Sulfate	53.4	50.0	107	90-110		WCICCCV_00764
14	CCB	19:54	Chloride	0.41				U	
			Sulfate	0.13				U	
23	CCV	22:55	Chloride	52.6	50.0	105	90-110		WCICCCV_00764
			Sulfate	53.6	50.0	107	90-110		WCICCCV_00764
24	CCB	23:15	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Analyst: LKG Batch Start Date: 03/16/2017

Reporting Units: mg/L Analytical Batch No.: 270915

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:33	Nitrite as N	2.59	2.50	104	90-110		WCICCCV_00764
			Nitrate as N	2.45	2.50	98	90-110		WCICCCV_00764
2	CCB	15:53	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
13	CCV	19:34	Nitrite as N	2.57	2.50	103	90-110		WCICCCV_00764
			Nitrate as N	2.43	2.50	97	90-110		WCICCCV_00764
14	CCB	19:54	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Analyst: LKG Batch Start Date: 03/17/2017

Reporting Units: mg/L Analytical Batch No.: 271028

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:19	Chloride	53.1	50.0	106	90-110		WCICCCV_00764
			Sulfate	54.4	50.0	109	90-110		WCICCCV_00764
2	CCB	12:39	Chloride	0.41				U	
			Sulfate	0.13				U	
13	CCV	17:03	Chloride	53.3	50.0	107	90-110		WCICCCV_00764
			Sulfate	54.6	50.0	109	90-110		WCICCCV_00764
14	CCB	17:23	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Analyst: TPH Batch Start Date: 03/21/2017

Reporting Units: mg/L Analytical Batch No.: 271370

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
2	CCVL	10:33	Dissolved Organic Carbon	4.91	5.00	98	90-110		WC TOC CCVL_00144
3	CCB	10:40	Dissolved Organic Carbon	0.080				U	
10	CCVL	12:17	Dissolved Organic Carbon	4.94	5.00	99	90-110		WC TOC CCVL_00144
11	CCB	12:25	Dissolved Organic Carbon	0.080				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Analyst: JWW Batch Start Date: 03/14/2017

Reporting Units: mg/L Analytical Batch No.: 270540

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
11	ICV	13:18	Orthophosphate as P	0.551	0.509	108	90-110		WCWIBBYNUTRIE_00072

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Analyst: CL Batch Start Date: 03/16/2017

Reporting Units: mg/L Analytical Batch No.: 270923

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:47	Orthophosphate as P	0.505	0.500	101	90-110		WCPhos 1ppm_00023
2	CCB	15:47	Orthophosphate as P	0.0050				U	
8	CCV	15:47	Orthophosphate as P	0.503	0.500	101	90-110		WCPhos 1ppm_00023
9	CCB	15:47	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 271764 Date: 03/23/2017 12:45							
2320B-1997	MB 240-271764/43	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 270914 Date: 03/16/2017 16:13							
300.0	MB 240-270914/3	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-270914/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 270915 Date: 03/16/2017 16:13							
300.0	MB 240-270915/3	Nitrite as N	0.038	U	mg/L	0.10	1
300.0	MB 240-270915/3	Nitrate as N	0.035	U	mg/L	0.10	1
Batch ID: 271028 Date: 03/17/2017 12:59							
300.0	MB 240-271028/3	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-271028/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 271573 Date: 03/22/2017 14:46 Prep Batch: 271572 Date: 03/22/2017 13:49							
350.2	MB 240-271572/1-A	Ammonia (as N)	0.87	U	mg/L	2.0	1
Batch ID: 271370 Date: 03/21/2017 10:49							
9060	MB 240-271370/4	Dissolved Organic Carbon	0.080	U	mg/L	1.0	1
Batch ID: 271523 Date: 03/22/2017 10:37							
SM 2540C	MB 240-271523/1	Total Dissolved Solids	7.4	U	mg/L	10	1
Batch ID: 270923 Date: 03/16/2017 15:47							
SM 4500 P E	MB 240-270923/3	Orthophosphate as P	0.0050	U	mg/L	0.10	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 270915 Date: 03/16/2017 17:14											
300.0	240-76779-B-1	Nitrite as N	0.038	U	mg/L						
300.0	240-76779-B-1 MS	Nitrite as N	2.33		mg/L	2.50	93	80-120			
300.0	240-76779-B-1	Nitrate as N	4.1		mg/L						
300.0	240-76779-B-1 MS	Nitrate as N	6.82		mg/L	2.50	108	80-120			
Batch ID: 270914 Date: 03/16/2017 21:55											
300.0	240-76817-R-1	Chloride	0.43	J	mg/L						
300.0	240-76817-R-1 MS	Chloride	55.1		mg/L	50.0	109	80-120			
300.0	240-76817-R-1	Sulfate	11		mg/L						
300.0	240-76817-R-1 MS	Sulfate	67.2		mg/L	50.0	112	80-120			
Batch ID: 271028 Date: 03/17/2017 13:59											
300.0	240-76777-A-8	Chloride	110		mg/L						
300.0	240-76777-A-8 MS	Chloride	159		mg/L	50.0	105	80-120			
300.0	240-76777-A-8	Sulfate	0.13	U	mg/L						
300.0	240-76777-A-8 MS	Sulfate	57.2		mg/L	50.0	114	80-120			
Batch ID: 271573 Date: 03/22/2017 14:59 Prep Batch: 271572 Date: 03/22/2017 13:49											
350.2	240-76894-L-1 -B	Ammonia (as N)	0.87	U	mg/L						
350.2	240-76894-L-1 -B MS	Ammonia (as N)	4.48		mg/L	4.00	112	67-127			
Batch ID: 271370 Date: 03/21/2017 11:33											
9060	240-76678-I-4	Dissolved Organic Carbon	0.41	J	mg/L						
9060	240-76678-I-4 MS	Dissolved Organic Carbon	5.33		mg/L	5.00	99	65-134			
Batch ID: 270923 Date: 03/16/2017 15:47											
SM 4500 P E	240-76810-2	Orthophosphate as P	0.030	J	mg/L						
SM 4500 P E	240-76810-2 MS	Orthophosphate as P	0.541		mg/L	0.500	102	31-154			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 270915 Date: 03/16/2017 17:34											
300.0	240-76779-B-1 MSD	Nitrite as N	2.64		mg/L	2.50	105	80-120	13	15	
300.0	240-76779-B-1 MSD	Nitrate as N	6.50		mg/L	2.50	96	80-120	5	15	
Batch ID: 270914 Date: 03/16/2017 22:15											
300.0	240-76817-R-1 MSD	Chloride	55.8		mg/L	50.0	111	80-120	1	15	
300.0	240-76817-R-1 MSD	Sulfate	67.8		mg/L	50.0	113	80-120	1	15	
Batch ID: 271028 Date: 03/17/2017 15:03											
300.0	240-76777-A-8 MSD	Chloride	156		mg/L	50.0	99	80-120	2	15	
300.0	240-76777-A-8 MSD	Sulfate	55.1		mg/L	50.0	110	80-120	4	15	
Batch ID: 271573 Date: 03/22/2017 15:01			Prep Batch: 271572			Date: 03/22/2017 13:49					
350.2	240-76894-L-1 -C MSD	Ammonia (as N)	4.20		mg/L	4.00	105	67-127	6	16	
Batch ID: 271370 Date: 03/21/2017 11:41											
9060	240-76678-I-4 MSD	Dissolved Organic Carbon	5.34		mg/L	5.00	99	65-134	0	10	
Batch ID: 270923 Date: 03/16/2017 15:47											
SM 4500 P E	240-76810-2 MSD	Orthophosphate as P	0.533		mg/L	0.500	101	31-154	2	11	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 271764	Date: 03/23/2017 13:04							
2320B-1997		240-76939-J-4	Alkalinity	150	mg/L			
2320B-1997		240-76939-J-4 DU	Alkalinity	149	mg/L	0.6	20	
Batch ID: 271523	Date: 03/22/2017 10:37							
SM 2540C		240-76896-A-1	Total Dissolved Solids	370	mg/L			
SM 2540C		240-76896-A-1 DU	Total Dissolved Solids	362	mg/L	0.8	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 271764	Date: 03/23/2017 12:27										
						LCS Source: WCPHENOMINER_00016					
2320B-1997	LCS 240-271764/41	Alkalinity	318		mg/L	334	95	86-123	5	20	
Batch ID: 270914	Date: 03/16/2017 16:33										
						LCS Source: WCICLCS_00601					
300.0	LCS 240-270914/4	Chloride	53.0		mg/L	50.0	106	90-110			
300.0	LCS 240-270914/4	Sulfate	53.3		mg/L	50.0	107	90-110			
Batch ID: 270915	Date: 03/16/2017 16:33										
						LCS Source: WCICLCS_00601					
300.0	LCS 240-270915/4	Nitrite as N	2.45		mg/L	2.50	98	90-110			
300.0	LCS 240-270915/4	Nitrate as N	2.53		mg/L	2.50	101	90-110			
Batch ID: 271028	Date: 03/17/2017 13:19										
						LCS Source: WCICLCS_00601					
300.0	LCS 240-271028/4	Chloride	53.4		mg/L	50.0	107	90-110			
300.0	LCS 240-271028/4	Sulfate	53.7		mg/L	50.0	107	90-110			
Batch ID: 271573	Date: 03/22/2017 14:47	Prep Batch: 271572	Date: 03/22/2017 13:49								
						LCS Source: WCWIBBYNUTRIE_00074					
350.2	LCS 240-271572/2-A	Ammonia (as N)	11.2		mg/L	10.3	109	82-116			
Batch ID: 271523	Date: 03/22/2017 10:37										
						LCS Source: WCPHENOVSOLID_00020					
SM 2540C	LCS 240-271523/2	Total Dissolved Solids	232		mg/L	208	112	80-120			
Batch ID: 270923	Date: 03/16/2017 15:47										
						LCS Source: WCWIBBYNUTRIE_00072					
SM 4500 P E	LCS 240-270923/4	Orthophosphate as P	0.520		mg/L	0.509	102	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 271764 Date: 03/23/2017 12:40											
						LCSD Source: WCPHENOMINER_00016					
2320B-1997	LCSD 240-271764/42	Alkalinity	304		mg/L	334	91	86-123	5	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LOW LEVEL CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 271370	Date: 03/21/2017 10:57										
						LCS Source: WC LCS_00058					
9060	LLCS 240-271370/5	Dissolved Organic Carbon	4.72		mg/L	4.63	102	88-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 MDL Date: 07/12/2013 09:18

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	1.9

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 XMDL Date: 07/12/2013 09:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.9

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 MDL Date: 08/12/2014 17:01

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 XMDL Date: 08/12/2014 17:02

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 350.2 MDL Date: 05/28/2013 15:29

Prep Method: Distill/Ammonia

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia (as N)		2	0.87

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 350.2 XMDL Date: 05/28/2013 15:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia (as N)		2	0.87

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 MDL Date: 04/28/2015 15:58

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 XMDL Date: 04/28/2015 15:59

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 01/28/2010 09:50

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 01/28/2010 09:51

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: SM 4500 P E MDL Date: 03/31/2016 13:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-76810-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: SM 4500 P E XMDL Date: 02/17/2016 10:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Orthophosphate as P		0.1	0.005

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Prep Method: Distill/Ammonia

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-271572/1-A	03/22/2017 13:49	271572		50	50
LCS 240-271572/2-A	03/22/2017 13:49	271572		50	50
240-76894-L-1-B MS	03/22/2017 13:49	271572		50	50
240-76894-L-1-C MSD	03/22/2017 13:49	271572		50	50
240-76810-2	03/22/2017 13:49	271572		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 03/22/2017 16:05 End Date: 03/23/2017 16:14

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
RINSE 240-271764/1			16:05	
ZZZZZZ			16:25	
ZZZZZZ			16:37	
ZZZZZZ			16:43	
ZZZZZZ			16:47	
ZZZZZZ			16:55	
ZZZZZZ			17:04	
ZZZZZZ			17:15	
ZZZZZZ			17:26	
ZZZZZZ			17:35	
ZZZZZZ			17:44	
ZZZZZZ			18:02	
ZZZZZZ			18:11	
ZZZZZZ			18:19	
ZZZZZZ			18:27	
ZZZZZZ			18:31	
ZZZZZZ			18:47	
ZZZZZZ			19:00	
ZZZZZZ			19:15	
ZZZZZZ			19:24	
ZZZZZZ			19:37	
ZZZZZZ			19:47	
ZZZZZZ			19:55	
ZZZZZZ			20:04	
RINSE 240-271764/25			09:13	
RINSE 240-271764/26			09:19	
ZZZZZZ			09:39	
ZZZZZZ			09:52	
ZZZZZZ			09:58	
ZZZZZZ			10:02	
ZZZZZZ			10:16	
ZZZZZZ			10:31	
ZZZZZZ			11:05	
ZZZZZZ			11:19	
ZZZZZZ			11:28	
ZZZZZZ			11:36	
ZZZZZZ			11:45	
ZZZZZZ			12:00	
ZZZZZZ			12:10	
ZZZZZZ			12:15	
LCS 240-271764/41	1	T	12:27	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 03/22/2017 16:05 End Date: 03/23/2017 16:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
LCSD 240-271764/42	1	T	12:40	X																								
MB 240-271764/43	1	T	12:45	X																								
ZZZZZZ			12:54																									
240-76939-J-4 DU	1	T	13:04	X																								
240-76810-2	1	T	13:10	X																								
ZZZZZZ			13:19																									
ZZZZZZ			13:34																									
ZZZZZZ			13:43																									
ZZZZZZ			13:56																									
ZZZZZZ			14:00																									
ZZZZZZ			14:07																									
RINSE 240-271764/53			14:13																									
ZZZZZZ			14:21																									
RINSE 240-271764/55			14:28																									
ZZZZZZ			14:35																									
RINSE 240-271764/57			14:41																									
ZZZZZZ			14:48																									
RINSE 240-271764/59			14:54																									
ZZZZZZ			15:06																									
ZZZZZZ			15:17																									
ZZZZZZ			15:20																									
ZZZZZZ			15:33																									
ZZZZZZ			15:45																									
ZZZZZZ			15:56																									
ZZZZZZ			16:10																									
ZZZZZZ			16:14																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 11/24/2016 09:12 End Date: 11/24/2016 12:33

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
STD1 240-256972/1 IC	1		09:12	X	X																								
STD2 240-256972/2 IC	1		09:32	X	X																								
STD3 240-256972/3 IC	1		09:52	X	X																								
STD4 240-256972/4 IC	1		10:12	X	X																								
STD5 240-256972/5 ICRT	1		10:32	X	X																								
STD6 240-256972/6 IC	1		10:53	X	X																								
STD7 240-256972/7 IC	1		11:13	X	X																								
STD8 240-256972/8 IC	1		11:33	X	X																								
STD9 240-256972/9 IC	1		11:53	X	X																								
ICV 240-256972/10	1		12:13	X	X																								
ICB 240-256972/11	1		12:33	X	X																								

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 11/24/2016 09:12 End Date: 11/24/2016 12:33

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
STD1 240-256973/1 IC	1		09:12	X	X																								
STD2 240-256973/2 IC	1		09:32	X	X																								
STD3 240-256973/3 IC	1		09:52	X	X																								
STD4 240-256973/4 IC	1		10:12	X	X																								
STD5 240-256973/5 ICRT	1		10:32	X	X																								
STD6 240-256973/6 IC	1		10:53	X	X																								
STD7 240-256973/7 IC	1		11:13	X	X																								
STD8 240-256973/8 IC	1		11:33	X	X																								
STD9 240-256973/9 IC	1		11:53	X	X																								
ICV 240-256973/10	1		12:13	X	X																								
ICB 240-256973/11	1		12:33	X	X																								

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/16/2017 15:33 End Date: 03/16/2017 23:15

Lab Sample Id	D/F	Type	Time	Analytes																									
				Cl-	SO4																								
CCV 240-270914/1	1		15:33	X	X																								
CCB 240-270914/2	1		15:53	X	X																								
MB 240-270914/3	1	T	16:13	X	X																								
LCS 240-270914/4	1	T	16:33	X	X																								
ZZZZZZ			16:54																										
ZZZZZZ			17:14																										
ZZZZZZ			17:34																										
240-76810-2	1	T	17:54		X																								
ZZZZZZ			18:14																										
ZZZZZZ			18:34																										
ZZZZZZ			18:54																										
ZZZZZZ			19:14																										
CCV 240-270914/13	1		19:34	X	X																								
CCB 240-270914/14	1		19:54	X	X																								
ZZZZZZ			20:15																										
ZZZZZZ			20:35																										
ZZZZZZ			20:55																										
ZZZZZZ			21:15																										
ZZZZZZ			21:35																										
240-76817-R-1 MS	1	T	21:55	X	X																								
240-76817-R-1 MSD	1	T	22:15	X	X																								
ZZZZZZ			22:35																										
CCV 240-270914/23	1		22:55	X	X																								
CCB 240-270914/24	1		23:15	X	X																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/16/2017 15:33 End Date: 03/16/2017 23:15

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-270915/1	1		15:33	X	X																								
CCB 240-270915/2	1		15:53	X	X																								
MB 240-270915/3	1	T	16:13	X	X																								
LCS 240-270915/4	1	T	16:33	X	X																								
ZZZZZZ			16:54																										
240-76779-B-1 MS	1	T	17:14	X	X																								
240-76779-B-1 MSD	1	T	17:34	X	X																								
240-76810-2	1	T	17:54	X	X																								
ZZZZZZ			18:14																										
ZZZZZZ			18:34																										
ZZZZZZ			18:54																										
ZZZZZZ			19:14																										
CCV 240-270915/13	1		19:34	X	X																								
CCB 240-270915/14	1		19:54	X	X																								
ZZZZZZ			20:15																										
ZZZZZZ			20:35																										
ZZZZZZ			20:55																										
ZZZZZZ			21:15																										
ZZZZZZ			21:35																										
ZZZZZZ			21:55																										
ZZZZZZ			22:15																										
ZZZZZZ			22:35																										
CCV 240-270915/23			22:55																										
CCB 240-270915/24			23:15																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/17/2017 12:19 End Date: 03/18/2017 00:05

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
CCV 240-271028/1	1		12:19	X	X																								
CCB 240-271028/2	1		12:39	X	X																								
MB 240-271028/3	1	T	12:59	X	X																								
LCS 240-271028/4	1	T	13:19	X	X																								
ZZZZZZ			13:39																										
240-76777-A-8 MS	1	T	13:59	X	X																								
240-76777-A-8 MSD	1	T	15:03	X	X																								
ZZZZZZ			15:23																										
ZZZZZZ			15:43																										
ZZZZZZ			16:03																										
ZZZZZZ			16:23																										
240-76810-2	5	T	16:43	X																									
CCV 240-271028/13	1		17:03	X	X																								
CCB 240-271028/14	1		17:23	X	X																								
ZZZZZZ			17:43																										
ZZZZZZ			18:03																										
ZZZZZZ			18:23																										
ZZZZZZ			18:43																										
ZZZZZZ			19:04																										
ZZZZZZ			19:24																										
ZZZZZZ			19:44																										
ZZZZZZ			20:04																										
ZZZZZZ			20:24																										
ZZZZZZ			20:44																										
CCV 240-271028/25			21:04																										
CCB 240-271028/26			21:24																										
ZZZZZZ			21:44																										
ZZZZZZ			22:04																										
ZZZZZZ			22:24																										
ZZZZZZ			22:44																										
ZZZZZZ			23:05																										
ZZZZZZ			23:25																										
CCV 240-271028/33			23:45																										
CCB 240-271028/34			00:05																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 350.2

Start Date: 03/22/2017 14:46 End Date: 03/22/2017 15:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
MB 240-271572/1-A	1	T	14:46	X																								
LCS 240-271572/2-A	1	T	14:47	X																								
ZZZZZZ			14:49																									
ZZZZZZ			14:51																									
ZZZZZZ			14:53																									
ZZZZZZ			14:55																									
ZZZZZZ			14:57																									
240-76894-L-1-B MS	1	T	14:59	X																								
240-76894-L-1-C MSD	1	T	15:01	X																								
ZZZZZZ			15:03																									
ZZZZZZ			15:04																									
ZZZZZZ			15:06																									
ZZZZZZ			15:08																									
ZZZZZZ			15:10																									
ZZZZZZ			15:12																									
ZZZZZZ			15:14																									
ZZZZZZ			15:16																									
ZZZZZZ			15:18																									
240-76810-2	1	T	15:20	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: Clark Analysis Method: 9060

Start Date: 03/21/2017 10:00 End Date: 03/21/2017 12:25

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			10:00																									
CCVL 240-271370/2	1		10:33	X																								
CCB 240-271370/3	1		10:40	X																								
MB 240-271370/4	1	D	10:49	X																								
LLCS 240-271370/5	1	D	10:57	X																								
ZZZZZZ			11:06																									
240-76678-I-4 MS	2	D	11:33	X																								
240-76678-I-4 MSD	2	D	11:41	X																								
240-76810-2	1	D	11:51	X																								
CCVL 240-271370/10	1		12:17	X																								
CCB 240-271370/11	1		12:25	X																								

Prep Types:
D = Dissolved

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 03/22/2017 10:37 End Date: 03/22/2017 10:37

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-271523/1	1	T	10:37	X																								
LCS 240-271523/2	1	T	10:37	X																								
ZZZZZZ			10:37																									
240-76896-A-1 DU	1	T	10:37	X																								
ZZZZZZ			10:37																									
ZZZZZZ			10:37																									
ZZZZZZ			10:37																									
ZZZZZZ			10:37																									
ZZZZZZ			10:37																									
ZZZZZZ			10:37																									
ZZZZZZ			10:37																									
240-76810-2	1	T	10:37	X																								
ZZZZZZ			10:37																									
ZZZZZZ			10:37																									
ZZZZZZ			10:37																									
ZZZZZZ			10:37																									
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ZZZZZZ			10:37																									
ZZZZZZ			10:37																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: ERNIE Analysis Method: SM 4500 P E

Start Date: 03/14/2017 12:45 End Date: 03/14/2017 13:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp																								
IC 240-270540/1	1		12:45	X																								
IC 240-270540/2	1		12:48	X																								
IC 240-270540/3	1		12:51	X																								
IC 240-270540/4	1		12:55	X																								
IC 240-270540/5	1		12:58	X																								
IC 240-270540/6	1		13:01	X																								
IC 240-270540/7	1		13:05	X																								
IC 240-270540/8	1		13:08	X																								
IC 240-270540/9	1		13:11	X																								
IC 240-270540/10	1		13:15	X																								
ICV 240-270540/11	1		13:18	X																								
ICB 240-270540/12			13:22																									
ZZZZZZ			13:25																									
ZZZZZZ			13:28																									
ZZZZZZ			13:32																									
ZZZZZZ			13:35																									
ZZZZZZ			13:38																									
CCV 240-270540/18			13:42																									
CCB 240-270540/19			13:45																									

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Instrument ID: ERNIE Analysis Method: SM 4500 P E

Start Date: 03/16/2017 15:47 End Date: 03/16/2017 15:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp P																								
CCV 240-270923/1	1		15:47	X																								
CCB 240-270923/2	1		15:47	X																								
MB 240-270923/3	1	T	15:47	X																								
LCS 240-270923/4	1	T	15:47	X																								
240-76810-2	1	T	15:47	X																								
240-76810-2 MS	1	T	15:47	X																								
240-76810-2 MSD	1	T	15:47	X																								
CCV 240-270923/8	1		15:47	X																								
CCB 240-270923/9	1		15:47	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 271764 Batch Start Date: 03/22/17 16:05 Batch Analyst: Nolle, Laura C

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CalcMsg	FinalAmount	WCPHENOMINER 00016		
LCS 240-271764/41		2320B-1997		50 mL	BuretStart2 is blank	50 mL	50 mL		
LCSD 240-271764/42		2320B-1997		50 mL	BuretStart2 is blank	50 mL	50 mL		
MB 240-271764/43		2320B-1997		50 mL	BuretStart2 is blank	50 mL			
240-76939-J-4 DU		2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-76810-N-2	MRC-MW34B-031517	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			

Batch Notes	
pH Buffer 1 ID	4-2916912
pH Buffer 2 ID	7-2951052
pH Buffer 3 ID	10-2951044
pH Buffer 4 ID	12-2916963
Nominal Amount Used	50 mL
Probe ID	112
Normality of First Titrant	.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 256972 Batch Start Date: 11/24/16 09:12 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00272	WCICLCS 00582			
STD1 240-256972/1 IC		300.0		5 mL	0.025 mL				
STD2 240-256972/2 IC		300.0		5 mL	0.125 mL				
STD3 240-256972/3 IC		300.0		5 mL	0.25 mL				
STD4 240-256972/4 IC		300.0		5 mL	0.5 mL				
STD5 240-256972/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-256972/6 IC		300.0		5 mL	2 mL				
STD7 240-256972/7 IC		300.0		5 mL	2.5 mL				
STD8 240-256972/8 IC		300.0		5 mL	3.75 mL				
STD9 240-256972/9 IC		300.0		5 mL	5 mL				
ICV 240-256972/10		300.0		5 mL		5 mL			
ICB 240-256972/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 256973 Batch Start Date: 11/24/16 09:12 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00272	WCICLCS 00582			
STD1 240-256973/1 IC		300.0		5 mL	0.025 mL				
STD2 240-256973/2 IC		300.0		5 mL	0.125 mL				
STD3 240-256973/3 IC		300.0		5 mL	0.25 mL				
STD4 240-256973/4 IC		300.0		5 mL	0.5 mL				
STD5 240-256973/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-256973/6 IC		300.0		5 mL	2 mL				
STD7 240-256973/7 IC		300.0		5 mL	2.5 mL				
STD8 240-256973/8 IC		300.0		5 mL	3.75 mL				
STD9 240-256973/9 IC		300.0		5 mL	5 mL				
ICV 240-256973/10		300.0		5 mL		5 mL			
ICB 240-256973/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 270914 Batch Start Date: 03/16/17 15:33 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00764	WCICLCS 00601	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-270914/1		300.0		5 mL	5 mL				
CCB 240-270914/2		300.0		5 mL					
MB 240-270914/3		300.0		5 mL					
LCS 240-270914/4		300.0		5 mL		5 mL			
240-76810-N-2	MRC-MW34B-031517	300.0	T	5 mL					
CCV 240-270914/13		300.0		5 mL	5 mL				
CCB 240-270914/14		300.0		5 mL					
240-76817-R-1 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-76817-R-1 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-270914/23		300.0		5 mL	5 mL				
CCB 240-270914/24		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 270915 Batch Start Date: 03/16/17 15:33 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00764	WCICLCS 00601	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-270915/1		300.0		5 mL	5 mL				
CCB 240-270915/2		300.0		5 mL					
MB 240-270915/3		300.0		5 mL					
LCS 240-270915/4		300.0		5 mL		5 mL			
240-76779-B-1 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-76779-B-1 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	
240-76810-N-2	MRC-MW34B-031517	300.0	T	5 mL					
CCV 240-270915/13		300.0		5 mL	5 mL				
CCB 240-270915/14		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 271028 Batch Start Date: 03/17/17 12:19 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00764	WCICLCS 00601	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-271028/1		300.0		5 mL	5 mL				
CCB 240-271028/2		300.0		5 mL					
MB 240-271028/3		300.0		5 mL					
LCS 240-271028/4		300.0		5 mL		5 mL			
240-76777-A-8 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-76777-A-8 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	
240-76810-N-2	MRC-MW34B-031517	300.0	T	5 mL					
CCV 240-271028/13		300.0		5 mL	5 mL				
CCB 240-271028/14		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 271572 Batch Start Date: 03/22/17 13:49 Batch Analyst: Sanford, Julie

Batch Method: Distill/Ammonia Batch End Date: 03/22/17 15:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	AdjustedpH	WCNH31000 00046	WCWIBBYNUTRIE 00074
MB 240-271572/1		Distill/Ammonia, 350.2		X	50 mL	50 mL	x SU		
LCS 240-271572/2		Distill/Ammonia, 350.2		X	50 mL	50 mL	x SU		50 mL
240-76894-L-1 MS		Distill/Ammonia, 350.2	T	X	50 mL	50 mL	x SU	0.2 mL	
240-76894-L-1 MSD		Distill/Ammonia, 350.2	T	X	50 mL	50 mL	x SU	0.2 mL	
240-76810-K-2	MRC-MW34B-031517	Distill/Ammonia, 350.2	T	X	50 mL	50 mL	x SU		

Batch Notes	
Base used for pH adjustment	2932916
Batch Comment	beakers 2950648
Borate Buffer Dispenser ID	2899113
Boric Acid Dispenser ID	2921781
Distilliation Unit ID	distillation block in wet prep
Distillation Temperature	162 Degrees C
Glass Beads Lot #	hengar 10/15/2015
Phenolphthalein ID	2959101
Pipette ID	B6 C6 E1

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 271573 Batch Start Date: 03/22/17 14:46 Batch Analyst: Sanford, Julie

Batch Method: 350.2 Batch End Date: 03/22/17 15:22

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TitrantVolume1	CalcMsg		
MB 240-271572/1-A		350.2		50 mL	50 mL	0.00 mL	OK		
LCS 240-271572/2-A		350.2		50 mL	50 mL	2.00 mL	OK		
240-76894-L-1-B MS		350.2	T	50 mL	50 mL	0.80 mL	OK		
240-76894-L-1-C MSD		350.2	T	50 mL	50 mL	0.75 mL	OK		
240-76810-K-2-A	MRC-MW34B-031517	350.2	T	50 mL	50 mL	0.10 mL	OK		

Batch Notes	
Batch Comment	indicator 2914203
Sulfuric Acid Lot Number	2851240
Nominal Amount Used	50 mL
Perform Calculation (0=No, 1=Yes)	1
Normality of First Titrant	0.0200 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 271370 Batch Start Date: 03/21/17 10:00 Batch Analyst: Harshman, Tom

Batch Method: 9060 Batch End Date: 03/21/17 12:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WC LCS 00058	WC TOC CCVL 00144		
CCVL 240-271370/2		9060		40 mL	40 mL		40 mL		
CCB 240-271370/3		9060		40 mL	40 mL				
MB 240-271370/4		9060		40 mL	40 mL				
LLCS 240-271370/5		9060		40 mL	40 mL	4 mL			
240-76678-I-4 MS		9060	D	40 mL	40 mL		20 mL		
240-76678-I-4 MSD		9060	D	40 mL	40 mL		20 mL		
240-76810-G-2	MRC-MW34B-031517	9060	D	40 mL	40 mL				
CCVL 240-271370/10		9060		40 mL	40 mL		40 mL		
CCB 240-271370/11		9060		40 mL	40 mL				

Batch Notes	
Phosphoric Acid ID	2959670
Sodium Persulfate ID	2959671

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 271523 Batch Start Date: 03/22/17 10:37 Batch Analyst: Weimer, Joshua W

Batch Method: SM 2540C Batch End Date: 03/23/17 15:52

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	Weight3
MB 240-271523/1		SM 2540C		-- umhos/cm	100 mL	3.6729 g	3.6734 g	3.6732 g	0 g
LCS 240-271523/2		SM 2540C		-- umhos/cm	50 mL	3.6463 g	3.6579 g	3.6579 g	0 g
240-76896-A-1 DU		SM 2540C	T	581 umhos/cm	100 mL	3.6742 g	3.7109 g	3.7104 g	0 g
240-76810-J-2	MRC-MW34B-031517	SM 2540C	T	665 umhos/cm	100 mL	3.5464 g	3.5821 g	3.5825 g	0 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight4	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2
MB 240-271523/1		SM 2540C		0 g	Pass No Unit	N/A No Unit	N/A	0.0005 g	0.0003 g
LCS 240-271523/2		SM 2540C		0 g	Pass No Unit	N/A No Unit	N/A	0.0116 g	0.0116 g
240-76896-A-1 DU		SM 2540C	T	0 g	Pass No Unit	N/A No Unit	N/A	0.0367 g	0.0362 g
240-76810-J-2	MRC-MW34B-031517	SM 2540C	T	0 g	Pass No Unit	N/A No Unit	N/A	0.0357 g	0.0361 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue3	Residue4	FinalAmount	CalcMsg	WCPHENOVSOLID 00020	
MB 240-271523/1		SM 2540C		N/A g	N/A g	100 mL	OK		
LCS 240-271523/2		SM 2540C		N/A g	N/A g	100 mL	OK	50 mL	
240-76896-A-1 DU		SM 2540C	T	N/A g	N/A g	100 mL	OK		
240-76810-J-2	MRC-MW34B-031517	SM 2540C	T	N/A g	N/A g	100 mL	OK		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 271523 Batch Start Date: 03/22/17 10:37 Batch Analyst: Weimer, Joshua W

Batch Method: SM 2540C Batch End Date: 03/23/17 15:52

Batch Notes	
Balance ID	B048
Batch Comment	Package ID: PA00238
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	03/23/17 13:39
Constant Weight (WT2) Date/Time Out	03/23/17 15:25
Constant Weight (WT2) Temp In	178 Degrees C
Constant Weight (WT2) Temp Out	178 Degrees C
Corrected Temperature in Oven	104 Degrees C
Date/Time Samples placed in Oven	3/22/2017 12:00
Filter Paper ID	2909659
Nominal Amount Used	100 mL
Oven ID	006
Thermometer ID	24250
Weight(WT1) Start Date/Time	03/23/17 07:25
Weight(WT1) Date/Time Out	03/23/17 13:09
Weight(WT1) Start Temp	178 Degrees C
Weight(WT1) Temp Out	178 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 270540 Batch Start Date: 03/14/17 12:45 Batch Analyst: Weimer, Joshua W

Batch Method: SM 4500 P E Batch End Date: 03/14/17 13:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00023	WCWIBBYNUTRIE 00072		
IC 240-270540/1		SM 4500 P E		10 mL	10 mL				
IC 240-270540/2		SM 4500 P E		10 mL	10 mL	0.1 mL			
IC 240-270540/3		SM 4500 P E		10 mL	10 mL	0.2 mL			
IC 240-270540/4		SM 4500 P E		10 mL	10 mL	0.6 mL			
IC 240-270540/5		SM 4500 P E		10 mL	10 mL	1 mL			
IC 240-270540/6		SM 4500 P E		10 mL	10 mL	2 mL			
IC 240-270540/7		SM 4500 P E		10 mL	10 mL	4 mL			
IC 240-270540/8		SM 4500 P E		10 mL	10 mL	6 mL			
IC 240-270540/9		SM 4500 P E		10 mL	10 mL	8 mL			
IC 240-270540/10		SM 4500 P E		10 mL	10 mL	10 mL			
ICV 240-270540/11		SM 4500 P E		10 mL	10 mL		1 mL		

Batch Notes	
Pipette ID	B8/C2/E1/F5

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-76810-1

SDG No.:

Batch Number: 270923 Batch Start Date: 03/16/17 15:47 Batch Analyst: Larue, Charles

Batch Method: SM 4500 P E Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00023	WCPHOS50PPM 00088	WCWIBBYNUTRIE 00072	
CCV 240-270923/1		SM 4500 P E		10 mL	10 mL	5 mL			
CCB 240-270923/2		SM 4500 P E		10 mL	10 mL				
MB 240-270923/3		SM 4500 P E		10 mL	10 mL				
LCS 240-270923/4		SM 4500 P E		10 mL	10 mL			1 mL	
240-76810-N-2	MRC-MW34B-031517	SM 4500 P E	T	10 mL	10 mL				
240-76810-N-2 MS	MRC-MW34B-031517	SM 4500 P E	T	10 mL	10 mL		0.1 mL		
240-76810-N-2 MSD	MRC-MW34B-031517	SM 4500 P E	T	10 mL	10 mL		0.1 mL		
CCV 240-270923/8		SM 4500 P E		10 mL	10 mL	5 mL			
CCB 240-270923/9		SM 4500 P E		10 mL	10 mL				

Batch Notes	
Batch Comment	Color Reagent # A6292

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **APRIL 19, 2017**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs, 1,4-DIOXANE**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC)
GROUNDWATER
SDG 240-76905-1

SAMPLES: 5/Aqueous
VOCs

MRC-DUP03-031617 MRC-MW110A-031617 MRC-MW110B-031617
MRC-MW53A-031617 MRC-MW53B-031617

4/Aqueous
1,4-Dioxane

MRC-MW110A-031617 MRC-MW110B-031617 MRC-MW53A-031617
MRC-MW53B-031617

1/Trip Blank

TB-031617

Overview

The sample set for LMC-MRC Groundwater, SDG 240-76905-1 consisted of five (5) aqueous environmental samples and one (1) trip blank. All samples were analyzed for volatile organic carbons (VOCs). Samples MRC-MW110A-031617, MRC-MW110B-031617, MRC-MW53A-031617 and MRC-MW53B-031617 were also analyzed for 1,4-Dioxane. One (1) field duplicate sample pair (MRC-MW53B-031617 / MRC-DUP03-031617) was included in this SDG.

The samples were collected by Tetra Tech, Inc. on March 16, 2017 and analyzed by TestAmerica – Canton and TestAmerica-Burlington. All analyses were conducted in accordance with SW-846 Method 8260C and EPA method 522 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, laboratory control sample / laboratory control sample duplicate results, internal standard areas, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The VOC continuing calibration performed on instrument A3UX15 on 03/27/17 @ 9:21 had percent differences (%Ds) for dichlorodifluoromethane, chloroethane, trichlorofluoromethane, 1,1,1-trichloroethane, carbon tetrachloride, cis-1,3-dichloropropene, bromoform and 1,1,2,2-tetrachloroethane which exceeded the quality control limits. Samples TB-031617, MRC-MW53B-031617, MRC-MW110A-031617 and MRC-DUP03-031617 were affected. The non-detected results

reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

- The VOC continuing calibration performed on instrument A3UX15 on 03/28/17 @ 8:34 had percent differences (%Ds) for bromomethane, chloroethane, trichlorofluoromethane, 1,1,1-trichloroethane, carbon tetrachloride, bromoform and isopropyl benzene which exceeded the quality control limits. Samples MRC-MW53A-031617 and MRC-MW11OB-031617 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

- The following compound was detected in the method blank at the maximum concentration indicated below:

Compound	Concentration	Action Level
Methylene chloride(1)	0.925 ug/L	9.25 ug/L
Methylene chloride(2)	0.727 ug/L	7.27 ug/L

(1) Maximum concentration present in a method blank affecting samples TB-031617, MRC-MW53B-031617, MRC-MW110A-031617 and MRC-DUP03-031617.
(2) Maximum concentration present in a method blank affecting samples MRC-MW53A-031617 and MRC-MW11OB-031617.

An action level of 10X the maximum concentration was established to evaluate for blank contamination. Dilution factors, if necessary, were taken into consideration during the application of the action level. The detected result reported for methylene chloride in sample MRC-MW110B-031617 was qualified as nondetected, (U). Field blanks are not qualified for method blank contamination.

- The VOC laboratory control samples (LCSs) had percent recoveries for chloroethane which exceeded the quality control limits. All samples were affected. The non-detected results reported for chloroethane in the affected samples were qualified as estimated, (UJ).

- Detected results reported below the RL but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Samples MRC-MW53A-031617 and MRC-MW110B-031617 were analyzed at a dilution for the VOC analyses. The detection limits of the non-detected results were elevated.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Several CCV %Ds were noncompliant for the VOC fraction. Contaminants were detected in the laboratory method blanks. LCS percent recoveries were noncompliant in the VOC fraction.

Other Factors Affecting Data Quality: Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-DUP03-031617			MRC-MW110A-031617			MRC-MW110B-031617			MRC-MW53A-031617		
SDG: 240-76905-1	LAB_ID	240-76905-6			240-76905-4			240-76905-5			240-76905-2		
FRACTION: OV	SAMP_DATE	3/16/2017			3/16/2017			3/16/2017			3/16/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW53B-031617											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	UJ	C	0.23	UJ	C	0.46	UJ	C	0.46	UJ	C
1,1,2,2-TETRACHLOROETHANE		0.32	UJ	C	0.32	UJ	C	0.64	U		0.64	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.68	U		0.68	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.82	U		0.82	U	
1,1-DICHLOROETHANE		0.25	U		0.64	J	P	0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.27	U		1.1			0.54	U		2		
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.54	U		0.54	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.94	U		0.94	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.46	U		0.46	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.52	U		0.52	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.6	U		0.6	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.6	U		0.6	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.64	U		0.64	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.46	U		0.46	U	
2-BUTANONE		1	U		1	U		2	U		2	U	
2-HEXANONE		1.2	U		1.2	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		1.4	U		1.4	U	
ACETONE		5.6	J	P	1.8	U		9.7	J	P	3.5	U	
BENZENE		17			1.5			42			0.56	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.6	U		0.6	U	
BROMOFORM		0.43	UJ	C	0.43	UJ	C	0.86	UJ	C	0.86	UJ	C
BROMOMETHANE		0.42	U		0.42	U		0.84	UJ	C	0.84	UJ	C
CARBON DISULFIDE		0.34	U		0.34	U		0.68	U		0.68	U	
CARBON TETRACHLORIDE		0.35	UJ	C	0.35	UJ	C	0.7	UJ	C	0.7	UJ	C
CHLOROBENZENE		0.32	U		0.32	U		0.64	U		0.64	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.5	U		0.5	U	
CHLOROETHANE		0.41	UJ	CE	0.41	UJ	CE	0.82	UJ	CE	0.82	UJ	CE
CHLOROFORM		0.31	U		0.31	U		0.69	J	P	0.62	U	
CHLOROMETHANE		0.43	U		0.43	U		0.86	U		0.86	U	
CIS-1,2-DICHLOROETHENE		1.5			11			6.4			3.3		
CIS-1,3-DICHLOROPROPENE		0.26	UJ	C	0.26	UJ	C	0.52	U		0.52	U	
CYCLOHEXANE		0.44	U		0.44	U		0.88	U		0.88	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	1	U		1	U	
ETHYLBENZENE		0.26	U		0.26	U		1.6	J	P	0.52	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.42	UJ	C	0.42	UJ	C

PROJ_NO: 07776	NSAMPLE	MRC-MW53B-031617			TB-031617		
SDG: 240-76905-1	LAB_ID	240-76905-3			240-76905-1		
FRACTION: OV	SAMP_DATE	3/16/2017			3/16/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	UJ	C	0.23	UJ	C
1,1,2,2-TETRACHLOROETHANE		0.32	UJ	C	0.32	UJ	C
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U	
ACETONE		5.4	J	P	1.8	U	
BENZENE		17			0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U	
BROMOFORM		0.43	UJ	C	0.43	UJ	C
BROMOMETHANE		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	UJ	C	0.35	UJ	C
CHLOROBENZENE		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U	
CHLOROETHANE		0.41	UJ	CE	0.41	UJ	CE
CHLOROFORM		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		1.5			0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	UJ	C	0.26	UJ	C
CYCLOHEXANE		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C
ETHYLBENZENE		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-DUP03-031617			MRC-MW110A-031617			MRC-MW110B-031617			MRC-MW53A-031617		
SDG: 240-76905-1	LAB_ID	240-76905-6			240-76905-4			240-76905-5			240-76905-2		
FRACTION: OV	SAMP_DATE	3/16/2017			3/16/2017			3/16/2017			3/16/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW53B-031617											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		2.9	U		2.9	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.9	U		0.9	U	
METHYL TERT-BUTYL ETHER		1.3			0.27	U		4.7			0.54	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		1.1	U	A	1.1	U	
STYRENE		0.23	U		0.23	U		0.46	U		0.46	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.6	U		0.6	U	
TOLUENE		0.23	U		0.23	U		0.46	U		0.46	U	
TOTAL XYLENES		1.2	J	P	0.24	U		4.2			0.48	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.45	J	P	0.58	U		0.58	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.62	U		0.62	U	
TRICHLOROETHENE		11			34			39			41		
TRICHLOROFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	1	UJ	C	1	UJ	C
VINYL CHLORIDE		0.45	U		0.69	J	P	0.9	U		0.9	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW53B-031617			TB-031617		
SDG: 240-76905-1	LAB_ID	240-76905-3			240-76905-1		
FRACTION: OV	SAMP_DATE	3/16/2017			3/16/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		1.3			0.27	U	
METHYLENE CHLORIDE		0.53	U		0.54	J	P
STYRENE		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U	
TOTAL XYLENES		1.1	J	P	0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U	
TRICHLOROETHENE		12			0.33	U	
TRICHLOROFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C
VINYL CHLORIDE		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW110A-031617			MRC-MW110B-031617			MRC-MW53A-031617			MRC-MW53B-031617		
SDG: 240-76905-1	LAB_ID	240-76905-4			240-76905-5			240-76905-2			240-76905-3		
FRACTION: OS	SAMP_DATE	3/16/2017			3/16/2017			3/16/2017			3/16/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		5.8			5.8			3.6			0.51		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: TB-031617 | Lab Sample ID: 240-76905-1

Matrix: Water | Lab File ID: UXC2231.D

Analysis Method: 8260C | Date Collected: 03/16/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/27/2017 17:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U *	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: TB-031617 | Lab Sample ID: 240-76905-1

Matrix: Water | Lab File ID: UXC2231.D

Analysis Method: 8260C | Date Collected: 03/16/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/27/2017 17:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.54	J B	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-124
1868-53-7	Dibromofluoromethane (Surr)	111		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW53A-031617 | Lab Sample ID: 240-76905-2

Matrix: Water | Lab File ID: UXC2274.D

Analysis Method: 8260C | Date Collected: 03/16/2017 10:36

Sample wt/vol: 5(mL) | Date Analyzed: 03/28/2017 10:26

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272197 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.46	U	2.0	0.46
79-34-5	1,1,2,2-Tetrachloroethane	0.64	U	2.0	0.64
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.82	U	2.0	0.82
79-00-5	1,1,2-Trichloroethane	0.68	U	2.0	0.68
75-34-3	1,1-Dichloroethane	0.50	U	2.0	0.50
75-35-4	1,1-Dichloroethene	2.0		2.0	0.54
120-82-1	1,2,4-Trichlorobenzene	0.54	U	2.0	0.54
96-12-8	1,2-Dibromo-3-Chloropropane	0.94	U	4.0	0.94
106-93-4	Ethylene Dibromide	0.46	U	2.0	0.46
95-50-1	1,2-Dichlorobenzene	0.52	U	2.0	0.52
107-06-2	1,2-Dichloroethane	0.60	U	2.0	0.60
78-87-5	1,2-Dichloropropane	0.60	U	2.0	0.60
541-73-1	1,3-Dichlorobenzene	0.64	U	2.0	0.64
106-46-7	1,4-Dichlorobenzene	0.46	U	2.0	0.46
78-93-3	2-Butanone (MEK)	2.0	U	20	2.0
591-78-6	2-Hexanone	2.5	U	20	2.5
108-10-1	4-Methyl-2-pentanone (MIBK)	1.4	U	20	1.4
67-64-1	Acetone	3.5	U	20	3.5
71-43-2	Benzene	0.56	U	2.0	0.56
75-27-4	Dichlorobromomethane	0.60	U	2.0	0.60
75-25-2	Bromoform	0.86	U	2.0	0.86
74-83-9	Bromomethane	0.84	U	2.0	0.84
75-15-0	Carbon disulfide	0.68	U	2.0	0.68
56-23-5	Carbon tetrachloride	0.70	U	2.0	0.70
108-90-7	Chlorobenzene	0.64	U	2.0	0.64
75-00-3	Chloroethane	0.82	U *	2.0	0.82
67-66-3	Chloroform	0.62	U	2.0	0.62
74-87-3	Chloromethane	0.86	U	2.0	0.86
156-59-2	cis-1,2-Dichloroethene	3.3		2.0	0.60
10061-01-5	cis-1,3-Dichloropropene	0.52	U	2.0	0.52
110-82-7	Cyclohexane	0.88	U	2.0	0.88
124-48-1	Chlorodibromomethane	0.50	U	2.0	0.50
75-71-8	Dichlorodifluoromethane	1.0	U	2.0	1.0
100-41-4	Ethylbenzene	0.52	U	2.0	0.52
98-82-8	Isopropylbenzene	0.42	U	2.0	0.42

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW53A-031617 | Lab Sample ID: 240-76905-2

Matrix: Water | Lab File ID: UXC2274.D

Analysis Method: 8260C | Date Collected: 03/16/2017 10:36

Sample wt/vol: 5(mL) | Date Analyzed: 03/28/2017 10:26

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272197 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	2.9	U	20	2.9
1634-04-4	Methyl tert-butyl ether	0.54	U	2.0	0.54
108-87-2	Methylcyclohexane	0.90	U	2.0	0.90
75-09-2	Methylene Chloride	1.1	U	2.0	1.1
100-42-5	Styrene	0.46	U	2.0	0.46
127-18-4	Tetrachloroethene	0.60	U	2.0	0.60
108-88-3	Toluene	0.46	U	2.0	0.46
156-60-5	trans-1,2-Dichloroethene	0.58	U	2.0	0.58
10061-02-6	trans-1,3-Dichloropropene	0.62	U	2.0	0.62
79-01-6	Trichloroethene	41		2.0	0.66
75-69-4	Trichlorofluoromethane	1.0	U	2.0	1.0
75-01-4	Vinyl chloride	0.90	U	2.0	0.90
1330-20-7	Xylenes, Total	0.48	U	4.0	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-124
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW53B-031617 | Lab Sample ID: 240-76905-3

Matrix: Water | Lab File ID: UXC2233.D

Analysis Method: 8260C | Date Collected: 03/16/2017 11:38

Sample wt/vol: 5(mL) | Date Analyzed: 03/27/2017 18:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	5.4	J	10	1.8
71-43-2	Benzene	17		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U *	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.5		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW53B-031617 | Lab Sample ID: 240-76905-3

Matrix: Water | Lab File ID: UXC2233.D

Analysis Method: 8260C | Date Collected: 03/16/2017 11:38

Sample wt/vol: 5(mL) | Date Analyzed: 03/27/2017 18:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	1.3		1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	12		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	1.1	J	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	108		80-120
460-00-4	4-Bromofluorobenzene (Surr)	102		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW110A-031617 | Lab Sample ID: 240-76905-4

Matrix: Water | Lab File ID: UXC2234.D

Analysis Method: 8260C | Date Collected: 03/16/2017 13:46

Sample wt/vol: 5(mL) | Date Analyzed: 03/27/2017 18:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.64	J	1.0	0.25
75-35-4	1,1-Dichloroethene	1.1		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	1.5		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U *	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	11		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW110A-031617 | Lab Sample ID: 240-76905-4

Matrix: Water | Lab File ID: UXC2234.D

Analysis Method: 8260C | Date Collected: 03/16/2017 13:46

Sample wt/vol: 5(mL) | Date Analyzed: 03/27/2017 18:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.45	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	34		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.69	J	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-124
1868-53-7	Dibromofluoromethane (Surr)	111		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW110B-031617 | Lab Sample ID: 240-76905-5

Matrix: Water | Lab File ID: UXC2275.D

Analysis Method: 8260C | Date Collected: 03/16/2017 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 03/28/2017 10:49

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272197 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.46	U	2.0	0.46
79-34-5	1,1,2,2-Tetrachloroethane	0.64	U	2.0	0.64
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.82	U	2.0	0.82
79-00-5	1,1,2-Trichloroethane	0.68	U	2.0	0.68
75-34-3	1,1-Dichloroethane	0.50	U	2.0	0.50
75-35-4	1,1-Dichloroethene	0.54	U	2.0	0.54
120-82-1	1,2,4-Trichlorobenzene	0.54	U	2.0	0.54
96-12-8	1,2-Dibromo-3-Chloropropane	0.94	U	4.0	0.94
106-93-4	Ethylene Dibromide	0.46	U	2.0	0.46
95-50-1	1,2-Dichlorobenzene	0.52	U	2.0	0.52
107-06-2	1,2-Dichloroethane	0.60	U	2.0	0.60
78-87-5	1,2-Dichloropropane	0.60	U	2.0	0.60
541-73-1	1,3-Dichlorobenzene	0.64	U	2.0	0.64
106-46-7	1,4-Dichlorobenzene	0.46	U	2.0	0.46
78-93-3	2-Butanone (MEK)	2.0	U	20	2.0
591-78-6	2-Hexanone	2.5	U	20	2.5
108-10-1	4-Methyl-2-pentanone (MIBK)	1.4	U	20	1.4
67-64-1	Acetone	9.7	J	20	3.5
71-43-2	Benzene	42		2.0	0.56
75-27-4	Dichlorobromomethane	0.60	U	2.0	0.60
75-25-2	Bromoform	0.86	U	2.0	0.86
74-83-9	Bromomethane	0.84	U	2.0	0.84
75-15-0	Carbon disulfide	0.68	U	2.0	0.68
56-23-5	Carbon tetrachloride	0.70	U	2.0	0.70
108-90-7	Chlorobenzene	0.64	U	2.0	0.64
75-00-3	Chloroethane	0.82	U *	2.0	0.82
67-66-3	Chloroform	0.69	J	2.0	0.62
74-87-3	Chloromethane	0.86	U	2.0	0.86
156-59-2	cis-1,2-Dichloroethene	6.4		2.0	0.60
10061-01-5	cis-1,3-Dichloropropene	0.52	U	2.0	0.52
110-82-7	Cyclohexane	0.88	U	2.0	0.88
124-48-1	Chlorodibromomethane	0.50	U	2.0	0.50
75-71-8	Dichlorodifluoromethane	1.0	U	2.0	1.0
100-41-4	Ethylbenzene	1.6	J	2.0	0.52
98-82-8	Isopropylbenzene	0.42	U	2.0	0.42

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW110B-031617 | Lab Sample ID: 240-76905-5

Matrix: Water | Lab File ID: UXC2275.D

Analysis Method: 8260C | Date Collected: 03/16/2017 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 03/28/2017 10:49

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272197 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	2.9	U	20	2.9
1634-04-4	Methyl tert-butyl ether	4.7		2.0	0.54
108-87-2	Methylcyclohexane	0.90	U	2.0	0.90
75-09-2	Methylene Chloride	1.1	J B	2.0	1.1
100-42-5	Styrene	0.46	U	2.0	0.46
127-18-4	Tetrachloroethene	0.60	U	2.0	0.60
108-88-3	Toluene	0.46	U	2.0	0.46
156-60-5	trans-1,2-Dichloroethene	0.58	U	2.0	0.58
10061-02-6	trans-1,3-Dichloropropene	0.62	U	2.0	0.62
79-01-6	Trichloroethene	39		2.0	0.66
75-69-4	Trichlorofluoromethane	1.0	U	2.0	1.0
75-01-4	Vinyl chloride	0.90	U	2.0	0.90
1330-20-7	Xylenes, Total	4.2		4.0	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-DUP03-031617 | Lab Sample ID: 240-76905-6

Matrix: Water | Lab File ID: UXC2236.D

Analysis Method: 8260C | Date Collected: 03/16/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/27/2017 19:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	5.6	J	10	1.8
71-43-2	Benzene	17		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U *	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.5		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-DUP03-031617 | Lab Sample ID: 240-76905-6

Matrix: Water | Lab File ID: UXC2236.D

Analysis Method: 8260C | Date Collected: 03/16/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/27/2017 19:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	1.3		1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	11		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	1.2	J	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-124
1868-53-7	Dibromofluoromethane (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW53A-031617 | Lab Sample ID: 240-76905-2

Matrix: Water | Lab File ID: Z24401_13.D

Analysis Method: 522 | Date Collected: 03/16/2017 10:36

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 18:22

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.6		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	99		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW53B-031617 | Lab Sample ID: 240-76905-3

Matrix: Water | Lab File ID: Z24401_14.D

Analysis Method: 522 | Date Collected: 03/16/2017 11:38

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 18:38

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.51		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	96		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW110A-031617 | Lab Sample ID: 240-76905-4

Matrix: Water | Lab File ID: Z24401_15.D

Analysis Method: 522 | Date Collected: 03/16/2017 13:46

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 18:55

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	5.8		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	101		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76905-1

SDG No.:

Client Sample ID: MRC-MW110B-031617 | Lab Sample ID: 240-76905-5

Matrix: Water | Lab File ID: Z24401_16.D

Analysis Method: 522 | Date Collected: 03/16/2017 14:50

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 19:12

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	5.8		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	98		46-130

Appendix C

Support Documentation

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

2.6/23

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.2
Client Contact: Mr. Stuart Cameron	Phone: 301 528-3075	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:

Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Germantown	TAT Requested (days): standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: MD, 20874			
Phone: 301 528-3022	PO #: 1093454		Other:
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776		
Project Name: MRC 2017 GW	Project #: 24015639		
Site: Middle River Canton	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (Mth 522)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A			
TB-031617	3/16/17	-	G	Water			2	-		
MRC-MW53A-031617		1036		Water			3	2		
MRC-MW53B-031617		1138					3	2		
MRC-MW110A-031617		1346					3	2		
MRC-MW110B-031617		1450					3	2		
MRC-Dup03-031617		0000					3	-		

240-76905 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Pr	3/16/17 1600	TT INC	POP	3-17-17 840	TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-76905-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 522 1,4-Dioxane analysis was performed at the TestAmerica Burlington Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 3/17/2017 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3º C.

1,4-DIOXANE
Samples MRC-MW53A-031617 (240-76905-2), MRC-MW53B-031617 (240-76905-3), MRC-MW110A-031617 (240-76905-4) and MRC-MW110B-031617 (240-76905-5) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 03/20/2017 and analyzed on 03/22/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples TB-031617 (240-76905-1), MRC-MW53A-031617 (240-76905-2), MRC-MW53B-031617 (240-76905-3), MRC-MW110A-031617 (240-76905-4), MRC-MW110B-031617 (240-76905-5) and MRC-DUP03-031617 (240-76905-6) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/27/2017 and 03/28/2017.

Methylene Chloride was detected in method blank MB 240-272071/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-272197/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride failed the recovery criteria high for MRL 240-272071/5.

Samples MRC-MW53A-031617 (240-76905-2)[2X] and MRC-MW110B-031617 (240-76905-5)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 272071 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required. TB-031617 (240-76905-1), MRC-MW53B-031617 (240-76905-3), MRC-MW110A-031617

(240-76905-4), MRC-DUP03-031617 (240-76905-6) and (240-76904-B-1)

The continuing calibration verification (CCV) for analytical batch 272197 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required. MRC-MW53A-031617 (240-76905-2) and MRC-MW110B-031617 (240-76905-5).

The laboratory control sample (LCS) for 272017 recovered outside control limits for the following analyte: Chloroethane. This analyte has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. TB-031617 (240-76905-1), MRC-MW53B-031617 (240-76905-3), MRC-MW110A-031617 (240-76905-4), MRC-DUP03-031617 (240-76905-6) and (LCS 240-272071/4)

The laboratory control sample (LCS) for 272197 recovered outside control limits for the following analyte: Chloroethane. These analytes have been identified as poor performing analytes when analyzed using this method; therefore, re-extraction/re-analysis was not performed. MRC-MW53A-031617 (240-76905-2), MRC-MW110B-031617 (240-76905-5) and (LCS 240-272197/4)

No MS/MSD in batch 272197 due to analyst error (forgot to spike). Batch included: MRC-MW53A-031617 (240-76905-2) and MRC-MW110B-031617 (240-76905-5)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76905-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-76905-1	TB-031617	Water	03/16/17 00:00	03/17/17 09:40
240-76905-2	MRC-MW53A-031617	Water	03/16/17 10:36	03/17/17 09:40
240-76905-3	MRC-MW53B-031617	Water	03/16/17 11:38	03/17/17 09:40
240-76905-4	MRC-MW110A-031617	Water	03/16/17 13:46	03/17/17 09:40
240-76905-5	MRC-MW110B-031617	Water	03/16/17 14:50	03/17/17 09:40
240-76905-6	MRC-DUP03-031617	Water	03/16/17 00:00	03/17/17 09:40

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76905-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

ANALYTE	ORIGINAL MRC-MW53B	DUPLICATE DUP03	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2XRL
ACETONE	5.4	5.6	5.4	3.636	FALSE	FALSE	FALSE	FALSE
BENZENE	17	17	17	0.000	FALSE	FALSE	FALSE	FALSE
CIS-1,2-DICHLOROETHENE	1.5	1.5	1.5	0.000	FALSE	FALSE	FALSE	FALSE
METHYL TERT-BUTYL ETHER	1.3	1.3	1.3	0.000	FALSE	FALSE	FALSE	FALSE
TOTAL XYLENES	1.1	1.2	1.1	8.696	FALSE	FALSE	FALSE	FALSE
TRICHLOROETHENE	12	11	12	8.696	FALSE	FALSE	FALSE	FALSE

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
	MRL 240-272071/5	108	99	99	107

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	10-150
DCA = 1,2-Dichloroethane-d4 (Surr)	10-150
TOL = Toluene-d8 (Surr)	10-150
BFB = 4-Bromofluorobenzene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-031617	240-76905-1	111	105	95	99
MRC-MW53A-031617	240-76905-2	103	96	98	98
MRC-MW53B-031617	240-76905-3	108	98	93	102
MRC-MW110A-031617	240-76905-4	111	99	95	101
MRC-MW110B-031617	240-76905-5	100	92	99	101
MRC-DUP03-031617	240-76905-6	107	96	96	99
	MB 240-272071/6	108	102	95	100
	MB 240-272197/6	100	94	100	98
	LCS 240-272071/4	109	98	100	109
	LCS 240-272197/4	103	89	104	108
	240-76904-B-1 MS	109	95	101	111
	240-76904-B-1 MSD	111	93	100	111

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC2210.D

Lab ID: LCS 240-272071/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	13.1	131	79-133	
1,1,2,2-Tetrachloroethane	10.0	7.56	76	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.6	116	65-151	
1,1,2-Trichloroethane	10.0	9.64	96	80-120	
1,1-Dichloroethane	10.0	10.1	101	77-121	
1,1-Dichloroethene	10.0	9.90	99	70-141	
1,2,4-Trichlorobenzene	10.0	10.2	102	53-137	
1,2-Dibromo-3-Chloropropane	10.0	9.50	95	46-140	
Ethylene Dibromide	10.0	9.48	95	80-126	
1,2-Dichlorobenzene	10.0	9.52	95	80-120	
1,2-Dichloroethane	10.0	10.1	101	76-130	
1,2-Dichloropropane	10.0	11.0	110	79-121	
1,3-Dichlorobenzene	10.0	9.14	91	80-120	
1,4-Dichlorobenzene	10.0	9.26	93	80-120	
2-Butanone (MEK)	20.0	18.6	93	54-122	
2-Hexanone	20.0	18.6	93	56-124	
4-Methyl-2-pentanone (MIBK)	20.0	21.4	107	60-131	
Acetone	20.0	14.2	71	46-120	
Benzene	10.0	10.9	109	80-120	
Dichlorobromomethane	10.0	11.5	115	76-125	
Bromoform	10.0	11.7	117	52-157	
Bromomethane	10.0	5.94	59	24-160	
Carbon disulfide	10.0	10.2	102	58-160	
Carbon tetrachloride	10.0	14.7	147	69-149	
Chlorobenzene	10.0	9.89	99	80-120	
Chloroethane	10.0	2.33	23	24-147	*
Chloroform	10.0	10.6	106	80-120	
Chloromethane	10.0	8.25	82	50-135	
cis-1,2-Dichloroethene	10.0	10.4	104	80-120	
cis-1,3-Dichloropropene	10.0	11.7	117	75-120	
Cyclohexane	10.0	10.8	108	66-135	
Chlorodibromomethane	10.0	10.9	109	68-131	
Dichlorodifluoromethane	10.0	10.9	109	32-140	
Ethylbenzene	10.0	10.2	102	80-120	
Isopropylbenzene	10.0	10.9	109	80-120	
Methyl acetate	50.0	50.7	101	65-124	
Methyl tert-butyl ether	10.0	10.4	104	75-126	
Methylcyclohexane	10.0	10.6	106	71-122	
Methylene Chloride	10.0	9.76	98	68-136	
Styrene	10.0	10.5	105	80-120	
Tetrachloroethene	10.0	10.0	100	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC2210.D

Lab ID: LCS 240-272071/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	10.0	9.94	99	80-121	
trans-1,2-Dichloroethene	10.0	10.7	107	80-123	
trans-1,3-Dichloropropene	10.0	11.0	110	65-120	
Trichloroethene	10.0	11.0	110	80-122	
Trichlorofluoromethane	10.0	14.5	145	56-161	
Vinyl chloride	10.0	10.3	103	60-129	
Xylenes, Total	20.0	20.0	100	80-120	
m-Xylene & p-Xylene	10.0	9.80	98	80-120	
o-Xylene	10.0	10.2	102	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC2270.D

Lab ID: LCS 240-272197/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	11.9	119	79-133	
1,1,2,2-Tetrachloroethane	10.0	7.55	75	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.7	107	65-151	
1,1,2-Trichloroethane	10.0	9.67	97	80-120	
1,1-Dichloroethane	10.0	9.28	93	77-121	
1,1-Dichloroethene	10.0	9.07	91	70-141	
1,2,4-Trichlorobenzene	10.0	10.9	109	53-137	
1,2-Dibromo-3-Chloropropane	10.0	9.54	95	46-140	
Ethylene Dibromide	10.0	9.31	93	80-126	
1,2-Dichlorobenzene	10.0	9.85	99	80-120	
1,2-Dichloroethane	10.0	9.10	91	76-130	
1,2-Dichloropropane	10.0	10.1	101	79-121	
1,3-Dichlorobenzene	10.0	9.45	95	80-120	
1,4-Dichlorobenzene	10.0	9.43	94	80-120	
2-Butanone (MEK)	20.0	16.6	83	54-122	
2-Hexanone	20.0	17.6	88	56-124	
4-Methyl-2-pentanone (MIBK)	20.0	18.6	93	60-131	
Acetone	20.0	13.5	67	46-120	
Benzene	10.0	9.90	99	80-120	
Dichlorobromomethane	10.0	10.2	102	76-125	
Bromoform	10.0	10.5	105	52-157	
Bromomethane	10.0	5.57	56	24-160	
Carbon disulfide	10.0	9.30	93	58-160	
Carbon tetrachloride	10.0	13.5	135	69-149	
Chlorobenzene	10.0	10.0	100	80-120	
Chloroethane	10.0	2.10	21	24-147	*
Chloroform	10.0	9.80	98	80-120	
Chloromethane	10.0	7.09	71	50-135	
cis-1,2-Dichloroethene	10.0	9.83	98	80-120	
cis-1,3-Dichloropropene	10.0	10.3	103	75-120	
Cyclohexane	10.0	10.2	102	66-135	
Chlorodibromomethane	10.0	10.2	102	68-131	
Dichlorodifluoromethane	10.0	9.38	94	32-140	
Ethylbenzene	10.0	10.3	103	80-120	
Isopropylbenzene	10.0	11.2	112	80-120	
Methyl acetate	50.0	44.6	89	65-124	
Methyl tert-butyl ether	10.0	9.22	92	75-126	
Methylcyclohexane	10.0	10.1	101	71-122	
Methylene Chloride	10.0	8.90	89	68-136	
Styrene	10.0	10.7	107	80-120	
Tetrachloroethene	10.0	10.4	104	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC2270.D

Lab ID: LCS 240-272197/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	10.0	9.99	100	80-121	
trans-1,2-Dichloroethene	10.0	9.80	98	80-123	
trans-1,3-Dichloropropene	10.0	10.2	102	65-120	
Trichloroethene	10.0	10.2	102	80-122	
Trichlorofluoromethane	10.0	12.1	121	56-161	
Vinyl chloride	10.0	9.18	92	60-129	
Xylenes, Total	20.0	20.4	102	80-120	
m-Xylene & p-Xylene	10.0	10.0	100	80-120	
o-Xylene	10.0	10.4	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC2212.D

Lab ID: MRL 240-272071/5 Client ID:

COMPOUND	SPIKE ADDED (ng/uL)	MRL CONCENTRATION (ng/uL)	MRL % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	0.00100	0.00139	139	10-150	
1,1,2,2-Tetrachloroethane	0.00100	0.000763 J	76	10-150	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.00100	0.00130	130	10-150	
1,1,2-Trichloroethane	0.00100	0.000999 J	100	10-150	
1,1-Dichloroethane	0.00100	0.00118	118	10-150	
1,1-Dichloroethene	0.00100	0.00117	117	10-150	
1,2,4-Trichlorobenzene	0.00100	0.00117	117	10-150	
1,2-Dibromo-3-Chloropropane	0.00100	0.000786 J	79	10-150	
Ethylene Dibromide	0.00100	0.000958 J	96	10-150	
1,2-Dichlorobenzene	0.00100	0.00100	100	10-150	
1,2-Dichloroethane	0.00100	0.00121	121	10-150	
1,2-Dichloropropane	0.00100	0.00123	123	10-150	
1,3-Dichlorobenzene	0.00100	0.000981 J	98	10-150	
1,4-Dichlorobenzene	0.00100	0.00100	100	10-150	
2-Butanone (MEK)	0.0100	0.00897 J	90	10-150	
2-Hexanone	0.0100	0.00820 J	82	10-150	
4-Methyl-2-pentanone (MIBK)	0.0100	0.0105	105	10-150	
Acetone	0.0100	0.00749 J	75	10-150	
Benzene	0.00100	0.00126	126	10-150	
Dichlorobromomethane	0.00100	0.00119	119	10-150	
Bromoform	0.00100	0.00103	103	10-150	
Bromomethane	0.00100	0.000707 J	71	10-150	
Carbon disulfide	0.00100	0.00114	114	10-150	
Carbon tetrachloride	0.00100	0.00146	146	10-150	
Chlorobenzene	0.00100	0.00109	109	10-150	
Chloroethane	0.00100	0.00041 U	35	10-150	
Chloroform	0.00100	0.00117	117	10-150	
Chloromethane	0.00100	0.000935 J	94	10-150	
cis-1,2-Dichloroethene	0.00100	0.00117	117	10-150	
cis-1,3-Dichloropropene	0.00100	0.00104	104	10-150	
Cyclohexane	0.00100	0.00111	111	10-150	
Chlorodibromomethane	0.00100	0.000926 J	93	10-150	
Dichlorodifluoromethane	0.00100	0.00111	111	10-150	
Ethylbenzene	0.00100	0.000981 J	98	10-150	
Isopropylbenzene	0.00100	0.000991 J	99	10-150	
Methyl acetate	0.00500	0.00579 J	116	10-150	
Methyl tert-butyl ether	0.00100	0.00111	111	10-150	
Methylcyclohexane	0.00100	0.00106	106	10-150	
Methylene Chloride	0.00100	0.00201	201	10-150	^
Styrene	0.00100	0.000945 J	94	10-150	
Tetrachloroethene	0.00100	0.00112	112	10-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC2212.D

Lab ID: MRL 240-272071/5 Client ID:

COMPOUND	SPIKE ADDED (ng/uL)	MRL CONCENTRATION (ng/uL)	MRL % REC	QC LIMITS REC	#
Toluene	0.00100	0.00108	108	10-150	
trans-1,2-Dichloroethene	0.00100	0.00118	118	10-150	
trans-1,3-Dichloropropene	0.00100	0.000889 J	89	10-150	
Trichloroethene	0.00100	0.00123	123	10-150	
Trichlorofluoromethane	0.00100	0.00134	134	10-150	
Vinyl chloride	0.00100	0.00106	106	10-150	
Xylenes, Total	0.00200	0.00189 J	95	10-150	
m-Xylene & p-Xylene	0.00100	0.000979 J	98	10-150	
o-Xylene	0.00100	0.000915 J	92	10-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC2237.D

Lab ID: 240-76904-B-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethane	200	5.0 U	204	102	57-135	
1,2-Dichloroethane	200	6.0 U	206	103	62-137	
cis-1,2-Dichloroethene	200	650	807	79	64-134	E
trans-1,2-Dichloroethene	200	5.8 U	216	108	70-137	
Trichloroethene	200	84	290	103	58-139	
Vinyl chloride	200	220	383	83	38-147	

Column to be used to flag recovery and RPD values

FORM III 8260C

Sample not included in SDG.

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC2238.D

Lab ID: 240-76904-B-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethane	200	214	107	5	35	57-135	
1,2-Dichloroethane	200	206	103	0	35	62-137	
cis-1,2-Dichloroethene	200	826	89	2	35	64-134	E
trans-1,2-Dichloroethene	200	224	112	4	25	70-137	
Trichloroethene	200	301	108	4	35	58-139	
Vinyl chloride	200	398	90	4	35	38-147	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab File ID: UXC2213.D Lab Sample ID: MB 240-272071/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX15 Date Analyzed: 03/27/2017 10:52

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-272071/4	UXC2210.D	03/27/2017 09:44
TB-031617	240-76905-1	UXC2231.D	03/27/2017 17:42
MRC-MW53B-031617	240-76905-3	UXC2233.D	03/27/2017 18:26
MRC-MW110A-031617	240-76905-4	UXC2234.D	03/27/2017 18:48
MRC-DUP03-031617	240-76905-6	UXC2236.D	03/27/2017 19:33
	240-76904-B-1 MS	UXC2237.D	03/27/2017 19:55
	240-76904-B-1 MSD	UXC2238.D	03/27/2017 20:18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272071/6

Matrix: Water | Lab File ID: UXC2213.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/27/2017 10:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272071/6

Matrix: Water | Lab File ID: UXC2213.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/27/2017 10:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.925	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-124
1868-53-7	Dibromofluoromethane (Surr)	108		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab File ID: UXC2273.D Lab Sample ID: MB 240-272197/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX15 Date Analyzed: 03/28/2017 10:04

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-272197/4	UXC2270.D	03/28/2017 08:56
MRC-MW53A-031617	240-76905-2	UXC2274.D	03/28/2017 10:26
MRC-MW110B-031617	240-76905-5	UXC2275.D	03/28/2017 10:49

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272197/6

Matrix: Water | Lab File ID: UXC2273.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/28/2017 10:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272197 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76905-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272197/6

Matrix: Water | Lab File ID: UXC2273.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/28/2017 10:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272197 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.727	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-124
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-132

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab File ID: BFB619.D BFB Injection Date: 06/23/2016

Instrument ID: A3UX15 BFB Injection Time: 11:35

Analysis Batch No.: 235701

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.7	
75	30.0 - 60.0 % of mass 95	46.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	50.0 - 120.00 % of mass 95	90.4	
175	5.0 - 9.0 % of mass 174	6.2	(6.8) 1
176	95.0 - 101.0 % of mass 174	87.8	(97.1) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-235701/2	UXC9008.D	06/23/2016	12:01
	STD8260 240-235701/3	UXC9009.D	06/23/2016	12:23
	STD8260 240-235701/4	UXC9010.D	06/23/2016	12:46
	STD8260 240-235701/5	UXC9011.D	06/23/2016	13:08
	STD8260 240-235701/6	UXC9012.D	06/23/2016	13:31
	STD8260 240-235701/7	UXC9013.D	06/23/2016	13:53
	ICV 240-235701/14	UXC9014.D	06/23/2016	14:16
	ICV 240-235701/15	UXC9021.D	06/23/2016	16:52

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76905-1 Analy Batch No.: 235701

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2016 12:01 Calibration End Date: 06/23/2016 13:53 Calibration ID: 34931

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-235701/7	UXC9013.D
Level 2	STD8260 240-235701/6	UXC9012.D
Level 3	STD8260 240-235701/5	UXC9011.D
Level 4	STD8260 240-235701/4	UXC9010.D
Level 5	STD8260 240-235701/3	UXC9009.D
Level 6	STD8260 240-235701/2	UXC9008.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3321 0.3340	0.3168	0.3294	0.3233	0.3421	Ave		0.3296			0.1000	2.7		20.0			
Chloromethane	0.5208 0.4361	0.4774	0.4696	0.4288	0.4654	Ave		0.4664			0.1000	7.1		20.0			
Vinyl chloride	0.4391 0.4197	0.4151	0.4242	0.3962	0.4333	Ave		0.4213			0.1000	3.6		20.0			
Butadiene	0.4013 0.3963	0.3836	0.3985	0.3823	0.4088	Ave		0.3951				2.6		20.0			
Bromomethane	0.1340 0.1484	0.1393	0.1381	0.1229	0.1534	Ave		0.1393			0.0500	7.7		20.0			
Chloroethane	0.2365 0.2202	0.2232	0.2271	0.2108	0.2270	Ave		0.2241			0.0500	3.8		20.0			
Dichlorofluoromethane	0.5040 0.4904	0.5039	0.4975	0.4540	0.5047	Ave		0.4924				4.0		20.0			
Trichlorofluoromethane	0.2480 0.2661	0.2535	0.2474	0.2379	0.2614	Ave		0.2524			0.1000	4.1		20.0			
Ethyl ether	0.2476 0.2339	0.2449	0.2241	0.2370	0.2362	Ave		0.2373				3.5		20.0			
Acrolein	0.0273 0.0276	0.0269	0.0279	0.0278	0.0281	Ave		0.0276				1.5		20.0			
1,1-Dichloroethene	0.2949 0.3034	0.2936	0.2845	0.2901	0.3022	Ave		0.2948			0.1000	2.4		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2043 0.2209	0.2241	0.2068	0.1967	0.2302	Ave		0.2139			0.0500	6.1		20.0			
Acetone	0.1395 0.0726	0.1118	0.0878	0.0765	0.0741	Lin1	0.1478	0.0706			0.0100				1.0000		0.9900
Iodomethane	0.4298 0.4393	0.4742	0.4386	0.4552	0.4550	Ave		0.4487				3.6		20.0			
Carbon disulfide	0.8263 0.9010	0.8422	0.8083	0.8576	0.9046	Ave		0.8567			0.1000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76905-1 Analy Batch No.: 235701

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2016 12:01 Calibration End Date: 06/23/2016 13:53 Calibration ID: 34931

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1554 0.1784	0.1576	0.1559	0.1742	0.1827	Ave		0.1674				7.4		20.0			
Methyl acetate	0.1618 0.1580	0.1598	0.1514	0.1507	0.1555	Ave		0.1562			0.1000	2.9		20.0			
Methylene Chloride	0.4936 0.3132	0.4248	0.3449	0.3381	0.3268	Ave		0.3735			0.1000	18.9		20.0			
2-Methyl-2-propanol	0.0096 0.0085	0.0101	0.0097	0.0091	0.0098	Ave		0.0095				5.9		20.0			
Methyl tert-butyl ether	0.5514 0.5919	0.5838	0.5562	0.5860	0.5987	Ave		0.5780			0.1000	3.4		20.0			
Acrylonitrile	0.0865 0.0883	0.0907	0.0851	0.0849	0.0870	Ave		0.0871				2.5		20.0			
trans-1,2-Dichloroethene	0.3240 0.3105	0.3275	0.3102	0.3200	0.3216	Ave		0.3190			0.1000	2.2		20.0			
Hexane	0.0821 0.0795	0.0794	0.0711	0.0762	0.0800	Ave		0.0781				5.0		20.0			
1,1-Dichloroethane	0.5384 0.5434	0.5585	0.5285	0.5452	0.5510	Ave		0.5441			0.2000	1.9		20.0			
Vinyl acetate	0.3327 0.4085	0.3342	0.3408	0.3597	0.3885	Ave		0.3607				8.7		20.0			
2,2-Dichloropropane	0.1567 0.1717	0.1672	0.1652	0.1881	0.1921	Ave		0.1735				8.0		20.0			
cis-1,2-Dichloroethene	0.3493 0.3361	0.3547	0.3327	0.3418	0.3441	Ave		0.3431			0.1000	2.4		20.0			
2-Butanone (MEK)	0.1156 0.0989	0.1075	0.0977	0.0935	0.0974	Ave		0.1018			0.0100	8.1		20.0			
Chlorobromomethane	0.1540 0.1507	0.1555	0.1493	0.1527	0.1537	Ave		0.1527				1.5		20.0			
Tetrahydrofuran	0.0572 0.0606	0.0583	0.0537	0.0538	0.0574	Ave		0.0568				4.7		20.0			
Chloroform	0.5050 0.5062	0.5301	0.4888	0.5048	0.5160	Ave		0.5085			0.2000	2.7		20.0			
1,1,1-Trichloroethane	0.2852 0.3173	0.3011	0.2949	0.3230	0.3345	Ave		0.3093			0.1000	6.0		20.0			
Cyclohexane	0.5215 0.5527	0.5316	0.5133	0.5316	0.5628	Ave		0.5356			0.1000	3.5		20.0			
1,1-Dichloropropene	0.4167 0.4309	0.4314	0.4054	0.4204	0.4364	Ave		0.4235				2.7		20.0			
Carbon tetrachloride	0.2299 0.2784	0.2395	0.2362	0.2634	0.2833	Ave		0.2551			0.1000	9.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76905-1 Analy Batch No.: 235701

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2016 12:01 Calibration End Date: 06/23/2016 13:53 Calibration ID: 34931

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0044 0.0049	0.0050	0.0049	0.0045	0.0052	Ave		0.0048				6.2		20.0			
Benzene	1.2947 1.3224	1.3476	1.2332	1.2686	1.3184	Ave		1.2975			0.5000	3.2		20.0			
1,2-Dichloroethane	0.3772 0.3692	0.3872	0.3588	0.3580	0.3701	Ave		0.3701			0.1000	3.0		20.0			
n-Heptane	0.0707 0.0754	0.0678	0.0671	0.0694	0.0748	Ave		0.0709				5.0		20.0			
Trichloroethene	0.3257 0.3255	0.3303	0.3132	0.3205	0.3298	Ave		0.3242			0.1500	2.0		20.0			
Methylcyclohexane	0.4725 0.5041	0.4829	0.4609	0.4756	0.5114	Ave		0.4846			0.1000	4.0		20.0			
1,2-Dichloropropane	0.2716 0.3011	0.2967	0.2760	0.2859	0.2981	Ave		0.2882			0.1000	4.3		20.0			
Dibromomethane	0.1477 0.1578	0.1546	0.1476	0.1507	0.1554	Ave		0.1523				2.8		20.0			
1,4-Dioxane	0.0018 0.0020	0.0021	0.0022	0.0020	0.0024	Ave		0.0021				10.4		20.0			
Dichlorobromomethane	0.2755 0.3482	0.2939	0.2900	0.3099	0.3353	Ave		0.3088			0.1500	9.1		20.0			
2-Chloroethyl vinyl ether	0.1285 0.1675	0.1385	0.1373	0.1440	0.1608	Ave		0.1461				10.3		20.0			
cis-1,3-Dichloropropene	0.2821 0.4251	0.3138	0.3239	0.3522	0.4012	Ave		0.3497			0.1500	15.6		20.0			
4-Methyl-2-pentanone (MIBK)	0.1559 0.1939	0.1659	0.1670	0.1782	0.1883	Ave		0.1749			0.0500	8.3		20.0			
Toluene	1.8454 1.8440	1.8252	1.6979	1.7996	1.8461	Ave		1.8097			0.4000	3.2		20.0			
trans-1,3-Dichloropropene	0.2726 0.4490	0.3002	0.3104	0.3649	0.4144	Ave		0.3519			0.1000	19.8		20.0			
Ethyl methacrylate	0.3014 0.4225	0.3234	0.3291	0.3763	0.4067	Ave		0.3599				13.7		20.0			
1,1,2-Trichloroethane	0.3188 0.3147	0.3102	0.2977	0.3101	0.3157	Ave		0.3112			0.1000	2.4		20.0			
Tetrachloroethene	0.3611 0.3541	0.3544	0.3269	0.3481	0.3554	Ave		0.3500			0.1500	3.4		20.0			
1,3-Dichloropropane	0.5883 0.5924	0.5978	0.5552	0.5681	0.5922	Ave		0.5823				2.9		20.0			
2-Hexanone	0.1386 0.1847	0.1470	0.1601	0.1648	0.1828	Ave		0.1630			0.0500	11.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76905-1 Analy Batch No.: 235701

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2016 12:01 Calibration End Date: 06/23/2016 13:53 Calibration ID: 34931

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2261 0.3274	0.2475	0.2505	0.2847	0.3137	Ave		0.2750				14.6		20.0			
Ethylene Dibromide	0.2774 0.3104	0.2927	0.2790	0.2998	0.3114	Ave		0.2951				5.0		20.0			
Chlorobenzene	1.1961 1.1713	1.1891	1.1210	1.1448	1.1639	Ave		1.1644			0.3000	2.4		20.0			
1,1,1,2-Tetrachloroethane	0.2725 0.3478	0.2873	0.2883	0.3111	0.3365	Ave		0.3072				9.7		20.0			
Ethylbenzene	0.6049 0.6363	0.6212	0.5904	0.6147	0.6332	Ave		0.6168				2.8		20.0			
m-Xylene & p-Xylene	1.5175 1.5637	1.5565	1.4594	1.5035	1.5590	Ave		1.5266				2.7		20.0			
o-Xylene	0.6940 0.7507	0.7369	0.7052	0.7149	0.7489	Ave		0.7251				3.3		20.0			
Styrene	1.0918 1.3099	1.2017	1.1803	1.2357	1.2846	Ave		1.2173			0.3000	6.4		20.0			
Bromoform	0.1065 0.1710	0.1173	0.1240	0.1392	0.1569	Ave		0.1358			0.1000	18.1		20.0			
Isopropylbenzene	1.6591 1.8007	1.7054	1.6662	1.6882	1.7718	Ave		1.7152			0.1000	3.4		20.0			
1,1,2,2-Tetrachloroethane	0.7544 0.7783	0.7987	0.7374	0.7885	0.8054	Ave		0.7771			0.3000	3.4		20.0			
Bromobenzene	0.9784 1.0520	1.0763	0.9992	1.0201	1.0915	Ave		1.0362				4.3		20.0			
1,2,3-Trichloropropane	0.2309 0.2475	0.2509	0.2407	0.2509	0.2552	Ave		0.2460				3.6		20.0			
trans-1,4-Dichloro-2-butene	0.2006 0.2385	0.2147	0.2001	0.2165	0.2397	Ave		0.2183				8.0		20.0			
N-Propylbenzene	0.9622 1.0807	1.0815	1.0048	1.0306	1.1185	Ave		1.0464				5.5		20.0			
2-Chlorotoluene	0.8538 0.9207	0.9561	0.8891	0.9079	0.9420	Ave		0.9116				4.1		20.0			
1,3,5-Trimethylbenzene	2.8746 3.0704	2.9843	2.8406	2.9341	3.0812	Ave		2.9642				3.4		20.0			
4-Chlorotoluene	3.0370 3.1778	3.3117	3.0525	3.1150	3.2501	Ave		3.1573				3.5		20.0			
tert-Butylbenzene	2.2647 2.5252	2.3995	2.3043	2.3833	2.5293	Ave		2.4010				4.6		20.0			
1,2,4-Trimethylbenzene	3.0029 3.0543	3.0523	2.8941	2.9667	3.0688	Ave		3.0065				2.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76905-1 Analy Batch No.: 235701

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2016 12:01 Calibration End Date: 06/23/2016 13:53 Calibration ID: 34931

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.0231 3.4048	3.2243	3.0768	3.1838	3.3627	Ave		3.2126				4.7		20.0			
1,3-Dichlorobenzene	1.7546 1.7099	1.7746	1.6796	1.7043	1.7149	Ave		1.7230			0.6000	2.0		20.0			
4-Isopropyltoluene	2.5011 2.9007	2.6300	2.6148	2.7211	2.8304	Ave		2.6997				5.5		20.0			
1,4-Dichlorobenzene	1.8619 1.7322	1.8194	1.7077	1.7335	1.7343	Ave		1.7648			0.5000	3.5		20.0			
n-Butylbenzene	2.0048 2.3308	2.0827	2.0417	2.1624	2.2859	Ave		2.1514				6.2		20.0			
1,2-Dichlorobenzene	1.6369 1.5498	1.6372	1.5209	1.5641	1.5550	Ave		1.5773			0.4000	3.1		20.0			
1,2-Dibromo-3-Chloropropane	0.0713 0.0968	0.0775	0.0764	0.0877	0.0937	Ave		0.0839			0.0500	12.3		20.0			
1,2,4-Trichlorobenzene	0.8718 0.7845	0.8230	0.8095	0.8148	0.8000	Ave		0.8173			0.2000	3.6		20.0			
Hexachlorobutadiene	0.4286 0.3302	0.4026	0.3714	0.3683	0.3604	Ave		0.3769				9.1		20.0			
Naphthalene	1.6356 1.6877	1.6077	1.7526	1.8425	1.8273	Ave		1.7256				5.7		20.0			
1,2,3-Trichlorobenzene	0.7978 0.6410	0.7359	0.7435	0.7184	0.7003	Ave		0.7228				7.2		20.0			
Dibromofluoromethane (Surr)	0.2526 0.2636	0.2509	0.2605	0.2635	0.2693	Ave		0.2601				2.7		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3324 0.3123	0.3098	0.3131	0.3078	0.3160	Ave		0.3152				2.8		20.0			
Toluene-d8 (Surr)	1.5529 1.5694	1.4893	1.5049	1.5498	1.5942	Ave		1.5434				2.6		20.0			
4-Bromofluorobenzene (Surr)	0.5282 0.5273	0.5194	0.5346	0.5225	0.5355	Ave		0.5279				1.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76905-1 Analy Batch No.: 235701

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2016 12:01 Calibration End Date: 06/23/2016 13:53 Calibration ID: 34931

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-235701/7	UXC9013.D
Level 2	STD8260 240-235701/6	UXC9012.D
Level 3	STD8260 240-235701/5	UXC9011.D
Level 4	STD8260 240-235701/4	UXC9010.D
Level 5	STD8260 240-235701/3	UXC9009.D
Level 6	STD8260 240-235701/2	UXC9008.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	55024 2229623	105410	274441	532159	1144735	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	86283 2911060	158822	391248	705860	1557494	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	72739 2801712	138092	353417	652249	1449866	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	66485 2645386	127624	332014	629347	1368063	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Ave	22196 990656	46331	115029	202278	513329	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	39185 1469906	74250	189192	346989	759516	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	83499 3273615	167634	414459	747338	1688900	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	41091 1776192	84337	206100	391615	874639	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	41022 1560987	81466	186739	390126	790259	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	22626 920230	44766	116080	228895	469577	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	48857 2025255	97683	237007	477574	1011305	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	33852 1474637	74571	172263	323860	770507	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Lin1	46220 968716	74384	146250	251825	495657	2.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	71203 2932296	157756	365381	749391	1522711	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	136890 6013828	280189	673419	1411770	3027069	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	25745 1190613	52428	129902	286781	611371	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76905-1 Analy Batch No.: 235701

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2016 12:01 Calibration End Date: 06/23/2016 13:53 Calibration ID: 34931

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	134041 5273734	265861	630724	1240351	2602080	5.00 200	10.0	25.0	50.0	100
Methylene Chloride	FB	Ave	81766 2090362	141323	287307	556561	1093604	1.00 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	15845 569469	33607	80496	150416	327915	10.0 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	91351 3950828	194215	463381	964687	2003662	1.00 40.0	2.00	5.00	10.0	20.0
Acrylonitrile	FB	Ave	143273 5891955	301718	708836	1397440	2912650	10.0 400	20.0	50.0	100	200
trans-1,2-Dichloroethene	FB	Ave	53675 2072600	108973	258409	526754	1076175	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	13602 530917	26430	59250	125426	267808	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	89192 3626879	185806	440269	897451	1843848	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	55121 2726750	111189	283912	592187	1300066	1.00 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	25956 1146332	55617	137623	309609	643010	1.00 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	57867 2243506	118007	277142	562656	1151518	1.00 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	38303 1320225	71513	162840	307817	652105	2.00 80.0	4.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	25519 1006164	51721	124357	251373	514415	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	18942 808963	38759	89497	176986	384344	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	83655 3379090	176362	407237	830945	1726855	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	47244 2118032	100159	245712	531766	1119264	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	86402 3689554	176846	427675	875148	1883262	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	69032 2876108	143524	337773	691987	1460478	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	38089 1858266	79673	196757	433593	947908	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	FB	Ave	18236 825609	41883	102363	187203	433197	25.0 1000	50.0	125	250	500
Benzene	FB	Ave	214485 8827192	448345	1027408	2088384	4412001	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76905-1 Analy Batch No.: 235701

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2016 12:01 Calibration End Date: 06/23/2016 13:53 Calibration ID: 34931

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	62483 2464628	128819	298918	589299	1238438	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	11712 503321	22548	55905	114259	250214	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	53963 2173004	109905	260945	527532	1103783	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	78279 3365087	160647	384006	782928	1711466	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	44995 2009871	98717	229954	470627	997682	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	24464 1053602	51449	122976	248098	520157	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Ave	5989 264593	13752	37134	65211	162465	20.0 800	40.0	100	200	400
Dichlorobromomethane	FB	Ave	45637 2324051	97780	241601	510131	1121948	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	42581 2235854	92131	228738	474045	1076012	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	46728 2837611	104387	269857	579810	1342445	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	51663 2588586	110394	278264	586618	1260528	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	225168 9433663	460534	1083109	2199736	4682291	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	33265 2297071	75746	197993	446038	1051127	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	36781 2161616	81602	209911	459965	1031531	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	38897 1609867	78276	189917	378998	800710	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	44067 1811657	89429	208541	425523	901375	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	71787 3030428	150849	354169	694381	1501894	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	33826 1890048	74175	204217	402888	927380	2.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	27591 1675183	62455	159774	348057	795696	1.00 40.0	2.00	5.00	10.0	20.0
Ethylene Dibromide	CBNZ d5	Ave	33852 1588091	73856	177983	366462	789894	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	145951 5992439	300027	715092	1399342	2951936	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76905-1 Analy Batch No.: 235701

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2016 12:01 Calibration End Date: 06/23/2016 13:53 Calibration ID: 34931

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	33248 1779319	72483	183911	380328	853371	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	73812 3255299	156737	376622	751339	1606039	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	185158 8000005	392735	930985	1837857	3953954	1.00 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBNZ d5	Ave	84676 3840557	185926	449885	873874	1899316	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	133220 6701573	303226	752906	1510454	3258210	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Ave	12996 874881	29607	79115	170115	397885	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	202439 9212113	430308	1062899	2063573	4493773	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	41297 1734933	86262	209034	418050	861073	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	53560 2345213	116245	283235	540828	1166894	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	12643 551771	27103	68244	133008	272823	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	10981 531665	23186	56722	114770	256277	1.00 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	52678 2409177	116805	284834	546391	1195811	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	46742 2052357	103264	252046	481328	1007144	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	157371 6844634	322320	805236	1555545	3294165	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	166259 7084085	357682	865284	1651421	3474725	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCBd 4	Ave	123979 5629272	259157	653200	1263523	2704111	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	164392 6808804	329665	820390	1572810	3280943	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	165502 7590052	348238	872177	1687895	3595143	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	96057 3811820	191662	476108	903522	1833479	1.00 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	136924 6466298	284055	741221	1442579	3026066	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	101928 3861573	196508	484088	919003	1854141	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76905-1 Analy Batch No.: 235701

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2016 12:01 Calibration End Date: 06/23/2016 13:53 Calibration ID: 34931

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	109753 5195979	224939	578770	1146393	2443899	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	89610 3454878	176829	431124	829198	1662485	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	3901 215853	8373	21663	46486	100207	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	47724 1748725	88892	229477	431994	855266	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Ave	23461 736086	43488	105293	195239	385336	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	89542 3762350	173642	496820	976833	1953626	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	43674 1428988	79480	210753	380869	748657	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	41850 1759601	83478	217037	433724	901146	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	55060 2084284	103057	260866	506674	1057637	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	189479 8028858	375796	960001	1894355	4043434	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	64450 2697403	131047	341028	638664	1358117	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab Sample ID: ICV 240-235701/14 Calibration Date: 06/23/2016 14:16

Instrument ID: A3UX15 Calib Start Date: 06/23/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/23/2016 13:53

Lab File ID: UXC9014.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3296	0.3164	0.1000	0.00960	0.0100	-4.0	20.0
Chloromethane	Ave	0.4664	0.4448	0.1000	0.00954	0.0100	-4.6	20.0
Vinyl chloride	Ave	0.4213	0.4126	0.1000	0.00979	0.0100	-2.1	20.0
Butadiene	Ave	0.3951	0.3681		0.00932	0.0100	-6.8	30.0
Bromomethane	Ave	0.1393	0.1386	0.0500	0.00995	0.0100	-0.5	20.0
Chloroethane	Ave	0.2241	0.2155	0.0500	0.00962	0.0100	-3.8	20.0
Dichlorofluoromethane	Ave	0.4924	0.4860		0.00987	0.0100	-1.3	20.0
Trichlorofluoromethane	Ave	0.2524	0.2694	0.1000	0.0107	0.0100	6.8	20.0
Ethyl ether	Ave	0.2373	0.2405		0.0101	0.0100	1.4	20.0
Acrolein	Ave	0.0276	0.0413		0.0749	0.0500	49.8	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2139	0.2353	0.0500	0.0110	0.0100	10.0	20.0
1,1-Dichloroethene	Ave	0.2948	0.3180	0.1000	0.0108	0.0100	7.9	20.0
Acetone	Lin1		0.0617	0.0100	0.0154	0.0200	-23.0	50.0
Iodomethane	Ave	0.4487	0.5028		0.0112	0.0100	12.1	20.0
Carbon disulfide	Ave	0.8567	0.9472	0.1000	0.0111	0.0100	10.6	20.0
3-Chloro-1-propene	Ave	0.1674	0.1872		0.0112	0.0100	11.9	20.0
Methyl acetate	Ave	0.1562	0.1548	0.1000	0.0495	0.0500	-0.9	20.0
Methylene Chloride	Ave	0.3735	0.3544	0.1000	0.00949	0.0100	-5.1	50.0
2-Methyl-2-propanol	Ave	0.0095	0.0086		0.0907	0.100	-9.3	50.0
Acrylonitrile	Ave	0.0871	0.0893		0.103	0.100	2.6	20.0
Methyl tert-butyl ether	Ave	0.5780	0.6020	0.1000	0.0104	0.0100	4.1	20.0
trans-1,2-Dichloroethene	Ave	0.3190	0.3457	0.1000	0.0108	0.0100	8.4	20.0
Hexane	Ave	0.0781	0.0849		0.0109	0.0100	8.7	20.0
1,1-Dichloroethane	Ave	0.5441	0.5576	0.2000	0.0102	0.0100	2.5	20.0
Vinyl acetate	Ave	0.3607	0.4002		0.0111	0.0100	10.9	50.0
2,2-Dichloropropane	Ave	0.1735	0.1819		0.0105	0.0100	4.8	20.0
cis-1,2-Dichloroethene	Ave	0.3431	0.3582	0.1000	0.0104	0.0100	4.4	20.0
2-Butanone (MEK)	Ave	0.1018	0.0930	0.0100	0.0183	0.0200	-8.6	20.0
Chlorobromomethane	Ave	0.1527	0.1581		0.0104	0.0100	3.6	20.0
Tetrahydrofuran	Ave	0.0568	0.0553		0.0195	0.0200	-2.6	20.0
Chloroform	Ave	0.5085	0.5370	0.2000	0.0106	0.0100	5.6	20.0
1,1,1-Trichloroethane	Ave	0.3093	0.3345	0.1000	0.0108	0.0100	8.1	20.0
Cyclohexane	Ave	0.5356	0.5820	0.1000	0.0109	0.0100	8.7	20.0
1,1-Dichloropropene	Ave	0.4235	0.4371		0.0103	0.0100	3.2	20.0
Carbon tetrachloride	Ave	0.2551	0.2760	0.1000	0.0108	0.0100	8.2	20.0
Isobutyl alcohol	Ave	0.0048	0.0045		0.231	0.250	-7.7	20.0
Benzene	Ave	1.297	1.346	0.5000	0.0104	0.0100	3.7	20.0
1,2-Dichloroethane	Ave	0.3701	0.3803	0.1000	0.0103	0.0100	2.8	20.0
n-Heptane	Ave	0.0709	0.0751		0.0106	0.0100	6.0	20.0
Trichloroethene	Ave	0.3242	0.3424	0.1500	0.0106	0.0100	5.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab Sample ID: ICV 240-235701/14 Calibration Date: 06/23/2016 14:16

Instrument ID: A3UX15 Calib Start Date: 06/23/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/23/2016 13:53

Lab File ID: UXC9014.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4846	0.5143	0.1000	0.0106	0.0100	6.1	20.0
1,2-Dichloropropane	Ave	0.2882	0.3125	0.1000	0.0108	0.0100	8.4	20.0
Dibromomethane	Ave	0.1523	0.1580		0.0104	0.0100	3.7	20.0
1,4-Dioxane	Ave	0.0021	0.0016		0.153	0.200	-23.6	50.0
Dichlorobromomethane	Ave	0.3088	0.3286	0.1500	0.0106	0.0100	6.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1461	0.1547		0.0106	0.0100	5.9	20.0
cis-1,3-Dichloropropene	Ave	0.3497	0.3799	0.1500	0.0109	0.0100	8.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1749	0.1785	0.0500	0.0204	0.0200	2.1	20.0
Toluene	Ave	1.810	1.889	0.4000	0.0104	0.0100	4.4	20.0
trans-1,3-Dichloropropene	Ave	0.3519	0.3654	0.1000	0.0104	0.0100	3.8	20.0
Ethyl methacrylate	Ave	0.3599	0.4014		0.0112	0.0100	11.5	20.0
1,1,2-Trichloroethane	Ave	0.3112	0.3226	0.1000	0.0104	0.0100	3.7	20.0
Tetrachloroethene	Ave	0.3500	0.3627	0.1500	0.0104	0.0100	3.6	20.0
1,3-Dichloropropane	Ave	0.5823	0.6023		0.0103	0.0100	3.4	20.0
2-Hexanone	Ave	0.1630	0.1674	0.0500	0.0205	0.0200	2.7	20.0
Chlorodibromomethane	Ave	0.2750	0.2891		0.0105	0.0100	5.1	20.0
Ethylene Dibromide	Ave	0.2951	0.3176		0.0108	0.0100	7.6	20.0
Chlorobenzene	Ave	1.164	1.192	0.3000	0.0102	0.0100	2.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3072	0.3146		0.0102	0.0100	2.4	20.0
Ethylbenzene	Ave	0.6168	0.6406		0.0104	0.0100	3.9	20.0
m-Xylene & p-Xylene	Ave	1.527	1.578		0.0103	0.0100	3.3	20.0
o-Xylene	Ave	0.7251	0.7431		0.0102	0.0100	2.5	20.0
Styrene	Ave	1.217	1.297	0.3000	0.0107	0.0100	6.6	20.0
Bromoform	Ave	0.1358	0.1506	0.1000	0.0111	0.0100	10.9	20.0
Isopropylbenzene	Ave	1.715	1.785	0.1000	0.0104	0.0100	4.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7771	0.8287	0.3000	0.0107	0.0100	6.6	20.0
Bromobenzene	Ave	1.036	1.111		0.0107	0.0100	7.2	20.0
1,2,3-Trichloropropane	Ave	0.2460	0.2711		0.0110	0.0100	10.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2183	0.2313		0.0106	0.0100	5.9	20.0
N-Propylbenzene	Ave	1.046	1.121		0.0107	0.0100	7.2	20.0
2-Chlorotoluene	Ave	0.9116	0.9667		0.0106	0.0100	6.0	20.0
1,3,5-Trimethylbenzene	Ave	2.964	3.080		0.0104	0.0100	3.9	20.0
4-Chlorotoluene	Ave	3.157	3.319		0.0105	0.0100	5.1	20.0
tert-Butylbenzene	Ave	2.401	2.534		0.0106	0.0100	5.6	20.0
1,2,4-Trimethylbenzene	Ave	3.007	3.055		0.0102	0.0100	1.6	20.0
sec-Butylbenzene	Ave	3.213	3.336		0.0104	0.0100	3.8	20.0
1,3-Dichlorobenzene	Ave	1.723	1.718	0.6000	0.00997	0.0100	-0.3	20.0
4-Isopropyltoluene	Ave	2.700	2.773		0.0103	0.0100	2.7	20.0
1,4-Dichlorobenzene	Ave	1.765	1.763	0.5000	0.00999	0.0100	-0.1	20.0
n-Butylbenzene	Ave	2.151	2.130		0.00990	0.0100	-1.0	20.0
1,2-Dichlorobenzene	Ave	1.577	1.548	0.4000	0.00981	0.0100	-1.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab Sample ID: ICV 240-235701/14 Calibration Date: 06/23/2016 14:16

Instrument ID: A3UX15 Calib Start Date: 06/23/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/23/2016 13:53

Lab File ID: UXC9014.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0839	0.0824	0.0500	0.00982	0.0100	-1.8	50.0
1,2,4-Trichlorobenzene	Ave	0.8173	0.7237	0.2000	0.00885	0.0100	-11.5	50.0
Hexachlorobutadiene	Ave	0.3769	0.3089		0.00820	0.0100	-18.0	20.0
Naphthalene	Ave	1.726	1.505		0.00872	0.0100	-12.8	50.0
1,2,3-Trichlorobenzene	Ave	0.7228	0.5970		0.00826	0.0100	-17.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2601	0.2609		0.00804	0.00801	0.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3152	0.3049		0.00775	0.00801	-3.3	20.0
Toluene-d8 (Surr)	Ave	1.543	1.568		0.00814	0.00801	1.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5279	0.5475		0.00831	0.00801	3.7	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab File ID: BFB70327.D BFB Injection Date: 03/27/2017

Instrument ID: A3UX15 BFB Injection Time: 08:49

Analysis Batch No.: 272071

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.3	
75	30.0 - 60.0 % of mass 95	46.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	86.8	
175	5.0 - 9.0 % of mass 174	6.2	(7.1) 1
176	95.0 - 101.0 % of mass 174	83.4	(96.1) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-272071/2	UXC2209.D	03/27/2017	09:21
	LCS 240-272071/4	UXC2210.D	03/27/2017	09:44
	CCV 240-272071/3	UXC2211.D	03/27/2017	10:07
	MRL 240-272071/5	UXC2212.D	03/27/2017	10:29
	MB 240-272071/6	UXC2213.D	03/27/2017	10:52
TB-031617	240-76905-1	UXC2231.D	03/27/2017	17:42
MRC-MW53B-031617	240-76905-3	UXC2233.D	03/27/2017	18:26
MRC-MW110A-031617	240-76905-4	UXC2234.D	03/27/2017	18:48
MRC-DUP03-031617	240-76905-6	UXC2236.D	03/27/2017	19:33
	240-76904-B-1 MS	UXC2237.D	03/27/2017	19:55
	240-76904-B-1 MSD	UXC2238.D	03/27/2017	20:18

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab Sample ID: CCVIS 240-272071/2 Calibration Date: 03/27/2017 09:21

Instrument ID: A3UX15 Calib Start Date: 06/23/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/23/2016 13:53

Lab File ID: UXC2209.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3296	0.3991	0.1000	0.0121	0.0100	21.1*	20.0
Chloromethane	Ave	0.4664	0.4884	0.1000	0.0105	0.0100	4.7	20.0
Vinyl chloride	Ave	0.4213	0.4453	0.1000	0.0106	0.0100	5.7	20.0
Butadiene	Ave	0.3951	0.4088		0.0103	0.0100	3.5	20.0
Bromomethane	Ave	0.1393	0.1144	0.0500	0.00821	0.0100	-17.9	20.0
Chloroethane	Ave	0.2241	0.0934	0.0500	0.00417	0.0100	-58.3*	20.0
Dichlorofluoromethane	Ave	0.4924	0.4525		0.00919	0.0100	-8.1	20.0
Trichlorofluoromethane	Ave	0.2524	0.4052	0.1000	0.0161	0.0100	60.6*	20.0
Ethyl ether	Ave	0.2373	0.2337		0.00985	0.0100	-1.5	20.0
Acrolein	Ave	0.0276	0.0306		0.0555	0.0500	10.9	50.0
1,1-Dichloroethene	Ave	0.2948	0.3218	0.1000	0.0109	0.0100	9.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2139	0.2735	0.0500	0.0128	0.0100	27.9*	20.0
Acetone	Lin1		0.0608	0.0100	0.0151	0.0200	-24.4	50.0
Iodomethane	Ave	0.4487	0.5436		0.0121	0.0100	21.1*	20.0
Carbon disulfide	Ave	0.8567	1.009	0.1000	0.0118	0.0100	17.8	20.0
3-Chloro-1-propene	Ave	0.1674	0.2092		0.0125	0.0100	25.0*	20.0
Methyl acetate	Ave	0.1562	0.1613	0.1000	0.0516	0.0500	3.3	20.0
Methylene Chloride	Ave	0.3735	0.3865	0.1000	0.0103	0.0100	3.5	50.0
2-Methyl-2-propanol	Ave	0.0095	0.0109		0.115	0.100	15.1	50.0
Methyl tert-butyl ether	Ave	0.5780	0.6048	0.1000	0.0105	0.0100	4.6	20.0
Acrylonitrile	Ave	0.0871	0.0860		0.0988	0.100	-1.2	20.0
trans-1,2-Dichloroethene	Ave	0.3190	0.3562	0.1000	0.0112	0.0100	11.7	20.0
Hexane	Ave	0.0781	0.0826		0.0106	0.0100	5.7	20.0
1,1-Dichloroethane	Ave	0.5441	0.5785	0.2000	0.0106	0.0100	6.3	20.0
Vinyl acetate	Ave	0.3607	0.3356		0.00930	0.0100	-7.0	50.0
2,2-Dichloropropane	Ave	0.1735	0.2718		0.0157	0.0100	56.6*	20.0
cis-1,2-Dichloroethene	Ave	0.3431	0.3801	0.1000	0.0111	0.0100	10.8	20.0
2-Butanone (MEK)	Ave	0.1018	0.0948	0.0100	0.0186	0.0200	-6.8	20.0
Chlorobromomethane	Ave	0.1527	0.1692		0.0111	0.0100	10.8	20.0
Tetrahydrofuran	Ave	0.0568	0.0637		0.0224	0.0200	12.2	20.0
Chloroform	Ave	0.5085	0.5711	0.2000	0.0112	0.0100	12.3	20.0
1,1,1-Trichloroethane	Ave	0.3093	0.4205	0.1000	0.0136	0.0100	35.9*	20.0
Cyclohexane	Ave	0.5356	0.6121	0.1000	0.0114	0.0100	14.3	20.0
1,1-Dichloropropene	Ave	0.4235	0.4647		0.0110	0.0100	9.7	20.0
Carbon tetrachloride	Ave	0.2551	0.3991	0.1000	0.0156	0.0100	56.4*	20.0
Isobutyl alcohol	Ave	0.0048	0.0054		0.277	0.250	11.0	20.0
Benzene	Ave	1.297	1.441	0.5000	0.0111	0.0100	11.1	20.0
1,2-Dichloroethane	Ave	0.3701	0.3880	0.1000	0.0105	0.0100	4.9	20.0
n-Heptane	Ave	0.0709	0.0776		0.0110	0.0100	9.6	20.0
Trichloroethene	Ave	0.3242	0.3749	0.1500	0.0116	0.0100	15.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab Sample ID: CCVIS 240-272071/2 Calibration Date: 03/27/2017 09:21

Instrument ID: A3UX15 Calib Start Date: 06/23/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/23/2016 13:53

Lab File ID: UXC2209.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4846	0.5237	0.1000	0.0108	0.0100	8.1	20.0
1,2-Dichloropropane	Ave	0.2882	0.3353	0.1000	0.0116	0.0100	16.3	20.0
1,4-Dioxane	Ave	0.0021	0.0023		0.216	0.200	8.2	50.0
Dibromomethane	Ave	0.1523	0.1693		0.0111	0.0100	11.2	20.0
Dichlorobromomethane	Ave	0.3088	0.3685	0.1500	0.0119	0.0100	19.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1461	0.1440		0.0197	0.0200	-1.4	20.0
cis-1,3-Dichloropropene	Ave	0.3497	0.4338	0.1500	0.0124	0.0100	24.0*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1749	0.1834	0.0500	0.0210	0.0200	4.9	20.0
Toluene	Ave	1.810	1.852	0.4000	0.0102	0.0100	2.4	20.0
trans-1,3-Dichloropropene	Ave	0.3519	0.4061	0.1000	0.0115	0.0100	15.4	20.0
Ethyl methacrylate	Ave	0.3599	0.3571		0.00992	0.0100	-0.8	20.0
1,1,2-Trichloroethane	Ave	0.3112	0.3081	0.1000	0.00990	0.0100	-1.0	20.0
Tetrachloroethene	Ave	0.3500	0.3714	0.1500	0.0106	0.0100	6.1	20.0
1,3-Dichloropropane	Ave	0.5823	0.5606		0.00963	0.0100	-3.7	20.0
2-Hexanone	Ave	0.1630	0.1520	0.0500	0.0187	0.0200	-6.7	20.0
Chlorodibromomethane	Ave	0.2750	0.3163		0.0115	0.0100	15.0	20.0
Ethylene Dibromide	Ave	0.2951	0.2834		0.00960	0.0100	-4.0	20.0
Chlorobenzene	Ave	1.164	1.188	0.3000	0.0102	0.0100	2.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3072	0.3754		0.0122	0.0100	22.2*	20.0
Ethylbenzene	Ave	0.6168	0.6430		0.0104	0.0100	4.3	20.0
m-Xylene & p-Xylene	Ave	1.527	1.556		0.0102	0.0100	1.9	20.0
o-Xylene	Ave	0.7251	0.7619		0.0105	0.0100	5.1	20.0
Styrene	Ave	1.217	1.318	0.3000	0.0108	0.0100	8.2	20.0
Bromoform	Ave	0.1358	0.1723	0.1000	0.0127	0.0100	26.9*	20.0
Isopropylbenzene	Ave	1.715	1.909	0.1000	0.0111	0.0100	11.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7771	0.5636	0.3000	0.00725	0.0100	-27.5*	20.0
Bromobenzene	Ave	1.036	0.8369		0.00808	0.0100	-19.2	20.0
1,2,3-Trichloropropane	Ave	0.2460	0.1759		0.00715	0.0100	-28.5*	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2183	0.1499		0.00686	0.0100	-31.4*	20.0
N-Propylbenzene	Ave	1.046	0.8928		0.00853	0.0100	-14.7	20.0
2-Chlorotoluene	Ave	0.9116	0.7837		0.00860	0.0100	-14.0	20.0
1,3,5-Trimethylbenzene	Ave	2.964	2.591		0.00874	0.0100	-12.6	20.0
4-Chlorotoluene	Ave	3.157	2.641		0.00836	0.0100	-16.4	20.0
tert-Butylbenzene	Ave	2.401	2.205		0.00918	0.0100	-8.2	20.0
1,2,4-Trimethylbenzene	Ave	3.007	2.761		0.00918	0.0100	-8.2	20.0
sec-Butylbenzene	Ave	3.213	3.022		0.00941	0.0100	-5.9	20.0
1,3-Dichlorobenzene	Ave	1.723	1.562	0.6000	0.00906	0.0100	-9.4	20.0
4-Isopropyltoluene	Ave	2.700	2.641		0.00978	0.0100	-2.2	20.0
1,4-Dichlorobenzene	Ave	1.765	1.621	0.5000	0.00919	0.0100	-8.1	20.0
n-Butylbenzene	Ave	2.151	2.109		0.00980	0.0100	-2.0	20.0
1,2-Dichlorobenzene	Ave	1.577	1.444	0.4000	0.00915	0.0100	-8.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab Sample ID: CCVIS 240-272071/2 Calibration Date: 03/27/2017 09:21

Instrument ID: A3UX15 Calib Start Date: 06/23/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/23/2016 13:53

Lab File ID: UXC2209.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0839	0.0728	0.0500	0.00867	0.0100	-13.3	50.0
1,2,4-Trichlorobenzene	Ave	0.8173	0.7663	0.2000	0.00938	0.0100	-6.2	50.0
Hexachlorobutadiene	Ave	0.3769	0.3536		0.00938	0.0100	-6.2	20.0
Naphthalene	Ave	1.726	1.239		0.00718	0.0100	-28.2	50.0
1,2,3-Trichlorobenzene	Ave	0.7228	0.5903		0.00817	0.0100	-18.3	20.0
Dibromofluoromethane (Surr)	Ave	0.2601	0.2874		0.00885	0.00801	10.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3152	0.3062		0.00778	0.00801	-2.9	20.0
Toluene-d8 (Surr)	Ave	1.543	1.590		0.00825	0.00801	3.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5279	0.5912		0.00897	0.00801	12.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab File ID: BFB70328A.D BFB Injection Date: 03/28/2017

Instrument ID: A3UX15 BFB Injection Time: 07:51

Analysis Batch No.: 272197

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 60.0 % of mass 95	47.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	83.2	
175	5.0 - 9.0 % of mass 174	5.5	(6.6) 1
176	95.0 - 101.0 % of mass 174	82.0	(98.5) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-272197/2	UXC2269.D	03/28/2017	08:34
	LCS 240-272197/4	UXC2270.D	03/28/2017	08:56
	CCV 240-272197/3	UXC2271.D	03/28/2017	09:18
	MB 240-272197/6	UXC2273.D	03/28/2017	10:04
MRC-MW53A-031617	240-76905-2	UXC2274.D	03/28/2017	10:26
MRC-MW110B-031617	240-76905-5	UXC2275.D	03/28/2017	10:49

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab Sample ID: CCVIS 240-272197/2 Calibration Date: 03/28/2017 08:34

Instrument ID: A3UX15 Calib Start Date: 06/23/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/23/2016 13:53

Lab File ID: UXC2269.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3296	0.3540	0.1000	0.0107	0.0100	7.4	20.0
Chloromethane	Ave	0.4664	0.4113	0.1000	0.00882	0.0100	-11.8	20.0
Vinyl chloride	Ave	0.4213	0.4024	0.1000	0.00955	0.0100	-4.5	20.0
Butadiene	Ave	0.3951	0.3797		0.00961	0.0100	-3.9	20.0
Bromomethane	Ave	0.1393	0.1034	0.0500	0.00742	0.0100	-25.8*	20.0
Chloroethane	Ave	0.2241	0.0693	0.0500	0.00309	0.0100	-69.1*	20.0
Dichlorofluoromethane	Ave	0.4924	0.3489		0.00709	0.0100	-29.1*	20.0
Trichlorofluoromethane	Ave	0.2524	0.3237	0.1000	0.0128	0.0100	28.2*	20.0
Ethyl ether	Ave	0.2373	0.2255		0.00950	0.0100	-5.0	20.0
Acrolein	Ave	0.0276	0.0265		0.0480	0.0500	-4.0	50.0
1,1-Dichloroethene	Ave	0.2948	0.3099	0.1000	0.0105	0.0100	5.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2139	0.2606	0.0500	0.0122	0.0100	21.9*	20.0
Acetone	Lin1		0.0765	0.0100	0.0196	0.0200	-2.1	50.0
Iodomethane	Ave	0.4487	0.5225		0.0116	0.0100	16.5	20.0
Carbon disulfide	Ave	0.8567	0.9393	0.1000	0.0110	0.0100	9.6	20.0
3-Chloro-1-propene	Ave	0.1674	0.1908		0.0114	0.0100	14.0	20.0
Methyl acetate	Ave	0.1562	0.1566	0.1000	0.0501	0.0500	0.2	20.0
Methylene Chloride	Ave	0.3735	0.3693	0.1000	0.00989	0.0100	-1.1	50.0
2-Methyl-2-propanol	Ave	0.0095	0.0106		0.112	0.100	11.9	50.0
Methyl tert-butyl ether	Ave	0.5780	0.5838	0.1000	0.0101	0.0100	1.0	20.0
Acrylonitrile	Ave	0.0871	0.0830		0.0953	0.100	-4.7	20.0
trans-1,2-Dichloroethene	Ave	0.3190	0.3441	0.1000	0.0108	0.0100	7.9	20.0
Hexane	Ave	0.0781	0.0822		0.0105	0.0100	5.3	20.0
1,1-Dichloroethane	Ave	0.5441	0.5612	0.2000	0.0103	0.0100	3.1	20.0
Vinyl acetate	Ave	0.3607	0.3207		0.00889	0.0100	-11.1	50.0
2,2-Dichloropropane	Ave	0.1735	0.2635		0.0152	0.0100	51.9*	20.0
cis-1,2-Dichloroethene	Ave	0.3431	0.3704	0.1000	0.0108	0.0100	7.9	20.0
2-Butanone (MEK)	Ave	0.1018	0.0991	0.0100	0.0195	0.0200	-2.7	20.0
Chlorobromomethane	Ave	0.1527	0.1617		0.0106	0.0100	5.9	20.0
Tetrahydrofuran	Ave	0.0568	0.0589		0.0207	0.0200	3.6	20.0
Chloroform	Ave	0.5085	0.5447	0.2000	0.0107	0.0100	7.1	20.0
1,1,1-Trichloroethane	Ave	0.3093	0.4057	0.1000	0.0131	0.0100	31.2*	20.0
Cyclohexane	Ave	0.5356	0.5978	0.1000	0.0112	0.0100	11.6	20.0
1,1-Dichloropropene	Ave	0.4235	0.4490		0.0106	0.0100	6.0	20.0
Carbon tetrachloride	Ave	0.2551	0.3744	0.1000	0.0147	0.0100	46.8*	20.0
Isobutyl alcohol	Ave	0.0048	0.0050		0.260	0.250	4.0	20.0
Benzene	Ave	1.297	1.380	0.5000	0.0106	0.0100	6.4	20.0
1,2-Dichloroethane	Ave	0.3701	0.3695	0.1000	0.00998	0.0100	-0.2	20.0
n-Heptane	Ave	0.0709	0.0775		0.0109	0.0100	9.4	20.0
Trichloroethene	Ave	0.3242	0.3558	0.1500	0.0110	0.0100	9.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab Sample ID: CCVIS 240-272197/2 Calibration Date: 03/28/2017 08:34

Instrument ID: A3UX15 Calib Start Date: 06/23/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/23/2016 13:53

Lab File ID: UXC2269.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4846	0.5226	0.1000	0.0108	0.0100	7.9	20.0
1,2-Dichloropropane	Ave	0.2882	0.3187	0.1000	0.0111	0.0100	10.6	20.0
Dibromomethane	Ave	0.1523	0.1554		0.0102	0.0100	2.1	20.0
1,4-Dioxane	Ave	0.0021	0.0020		0.193	0.200	-3.7	50.0
Dichlorobromomethane	Ave	0.3088	0.3483	0.1500	0.0113	0.0100	12.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1461	0.1427		0.0195	0.0200	-2.3	20.0
cis-1,3-Dichloropropene	Ave	0.3497	0.4062	0.1500	0.0116	0.0100	16.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1749	0.1878	0.0500	0.0215	0.0200	7.4	20.0
Toluene	Ave	1.810	1.960	0.4000	0.0108	0.0100	8.3	20.0
trans-1,3-Dichloropropene	Ave	0.3519	0.4060	0.1000	0.0115	0.0100	15.4	20.0
Ethyl methacrylate	Ave	0.3599	0.3925		0.0109	0.0100	9.0	20.0
1,1,2-Trichloroethane	Ave	0.3112	0.3197	0.1000	0.0103	0.0100	2.7	20.0
Tetrachloroethene	Ave	0.3500	0.3889	0.1500	0.0111	0.0100	11.1	20.0
1,3-Dichloropropane	Ave	0.5823	0.5959		0.0102	0.0100	2.3	20.0
2-Hexanone	Ave	0.1630	0.1859	0.0500	0.0228	0.0200	14.1	20.0
Chlorodibromomethane	Ave	0.2750	0.3150		0.0115	0.0100	14.5	20.0
Ethylene Dibromide	Ave	0.2951	0.2977		0.0101	0.0100	0.9	20.0
Chlorobenzene	Ave	1.164	1.270	0.3000	0.0109	0.0100	9.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3072	0.3930		0.0128	0.0100	27.9*	20.0
Ethylbenzene	Ave	0.6168	0.6963		0.0113	0.0100	12.9	20.0
m-Xylene & p-Xylene	Ave	1.527	1.662		0.0109	0.0100	8.9	20.0
o-Xylene	Ave	0.7251	0.8339		0.0115	0.0100	15.0	20.0
Styrene	Ave	1.217	1.413	0.3000	0.0116	0.0100	16.1	20.0
Bromoform	Ave	0.1358	0.1674	0.1000	0.0123	0.0100	23.2*	20.0
Isopropylbenzene	Ave	1.715	2.068	0.1000	0.0121	0.0100	20.6*	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7771	0.6255	0.3000	0.00805	0.0100	-19.5	20.0
Bromobenzene	Ave	1.036	0.9194		0.00887	0.0100	-11.3	20.0
1,2,3-Trichloropropane	Ave	0.2460	0.2011		0.00817	0.0100	-18.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2183	0.1577		0.00722	0.0100	-27.8*	20.0
N-Propylbenzene	Ave	1.046	1.006		0.00961	0.0100	-3.9	20.0
2-Chlorotoluene	Ave	0.9116	0.8814		0.00967	0.0100	-3.3	20.0
1,3,5-Trimethylbenzene	Ave	2.964	2.896		0.00977	0.0100	-2.3	20.0
4-Chlorotoluene	Ave	3.157	2.929		0.00928	0.0100	-7.2	20.0
tert-Butylbenzene	Ave	2.401	2.526		0.0105	0.0100	5.2	20.0
1,2,4-Trimethylbenzene	Ave	3.007	3.057		0.0102	0.0100	1.7	20.0
sec-Butylbenzene	Ave	3.213	3.398		0.0106	0.0100	5.8	20.0
1,3-Dichlorobenzene	Ave	1.723	1.779	0.6000	0.0103	0.0100	3.3	20.0
4-Isopropyltoluene	Ave	2.700	3.020		0.0112	0.0100	11.9	20.0
1,4-Dichlorobenzene	Ave	1.765	1.837	0.5000	0.0104	0.0100	4.1	20.0
n-Butylbenzene	Ave	2.151	2.423		0.0113	0.0100	12.6	20.0
1,2-Dichlorobenzene	Ave	1.577	1.651	0.4000	0.0105	0.0100	4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Lab Sample ID: CCVIS 240-272197/2 Calibration Date: 03/28/2017 08:34

Instrument ID: A3UX15 Calib Start Date: 06/23/2016 12:01

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/23/2016 13:53

Lab File ID: UXC2269.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0839	0.0824	0.0500	0.00982	0.0100	-1.8	50.0
1,2,4-Trichlorobenzene	Ave	0.8173	0.9473	0.2000	0.0116	0.0100	15.9	50.0
Hexachlorobutadiene	Ave	0.3769	0.4590		0.0122	0.0100	21.8*	20.0
Naphthalene	Ave	1.726	1.840		0.0107	0.0100	6.6	50.0
1,2,3-Trichlorobenzene	Ave	0.7228	0.8236		0.0114	0.0100	13.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2601	0.2759		0.00850	0.00801	6.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3152	0.2937		0.00746	0.00801	-6.8	20.0
Toluene-d8 (Surr)	Ave	1.543	1.631		0.00846	0.00801	5.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5279	0.5833		0.00885	0.00801	10.5	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Sample No.: STD8260 240-235701/4 Date Analyzed: 06/23/2016 12:46

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC9010.D Heated Purge: (Y/N) N

Calibration ID: 34931

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1646184	5.13	1222360	7.81	530154	10.04
UPPER LIMIT		3292368	5.63	2444720	8.31	1060308	10.54
LOWER LIMIT		823092	4.63	611180	7.31	265077	9.54
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-235701/14		1661685	5.13	1268289	7.81	530949	10.04
ICV 240-235701/15		1649875	5.13	1270373	7.81	493234	10.04
CCVIS 240-272071/2		1111904	5.03	909972	7.68	554313	9.93
CCVIS 240-272197/2		1236718	5.03	919847	7.68	539609	9.91

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Sample No.: CCVIS 240-272071/2 Date Analyzed: 03/27/2017 09:21

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC2209.D Heated Purge: (Y/N) N

Calibration ID: 36080

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1111904	5.03	909972	7.68	554313	9.93
UPPER LIMIT		2223808	5.53	1819944	8.18	1108626	10.43
LOWER LIMIT		555952	4.53	454986	7.18	277157	9.43
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-272071/4		1168207	5.03	952992	7.68	569178	9.93
CCV 240-272071/3		1143902	5.03	971065	7.68	512141	9.93
MRL 240-272071/5		1117973	5.03	928179	7.68	535982	9.93
MB 240-272071/6		1094127	5.03	908386	7.68	498601	9.93
240-76905-1	TB-031617	1022956	5.03	854531	7.68	473011	9.93
240-76905-3	MRC-MW53B-031617	1038982	5.03	850904	7.68	473769	9.93
240-76905-4	MRC-MW110A-031617	1028514	5.03	859593	7.68	472005	9.93
240-76905-6	MRC-DUP03-031617	1089721	5.03	875086	7.68	469141	9.93
240-76904-B-1 MS		1111711	5.03	927244	7.68	562642	9.93
240-76904-B-1 MSD		1104715	5.03	910985	7.68	566257	9.91

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Sample No.: CCVIS 240-272197/2 Date Analyzed: 03/28/2017 08:34

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC2269.D Heated Purge: (Y/N) N

Calibration ID: 36080

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1236718	5.03	919847	7.68	539609	9.91
UPPER LIMIT		2473436	5.53	1839694	8.18	1079218	10.41
LOWER LIMIT		618359	4.53	459924	7.18	269805	9.41
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-272197/4		1286491	5.03	949732	7.68	558999	9.93
CCV 240-272197/3		1255881	5.03	957153	7.68	513287	9.93
MB 240-272197/6		1226530	5.03	914937	7.68	475671	9.93
240-76905-2	MRC-MW53A-031617	1178840	5.03	899974	7.68	475069	9.93
240-76905-5	MRC-MW110B-031617	1228995	5.03	899207	7.68	481796	9.91

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Instrument ID: A3UX15 Start Date: 06/23/2016 11:35

Analysis Batch Number: 235701 End Date: 06/23/2016 18:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-235701/1		06/23/2016 11:35	1	BFB619.D	DB-624 0.18(mm)
STD8260 240-235701/2 IC		06/23/2016 12:01	1	UXC9008.D	DB-624 0.18(mm)
STD8260 240-235701/3 IC		06/23/2016 12:23	1	UXC9009.D	DB-624 0.18(mm)
STD8260 240-235701/4 ICIS		06/23/2016 12:46	1	UXC9010.D	DB-624 0.18(mm)
STD8260 240-235701/5 IC		06/23/2016 13:08	1	UXC9011.D	DB-624 0.18(mm)
STD8260 240-235701/6 IC		06/23/2016 13:31	1	UXC9012.D	DB-624 0.18(mm)
STD8260 240-235701/7 IC		06/23/2016 13:53	1	UXC9013.D	DB-624 0.18(mm)
ICV 240-235701/14		06/23/2016 14:16	1	UXC9014.D	DB-624 0.18(mm)
STD 240-235701/8 IC		06/23/2016 14:38	1		DB-624 0.18(mm)
STD 240-235701/9 IC		06/23/2016 15:00	1		DB-624 0.18(mm)
STD 240-235701/10 IC		06/23/2016 15:22	1		DB-624 0.18(mm)
STD 240-235701/11 IC		06/23/2016 15:45	1		DB-624 0.18(mm)
STD 240-235701/12 IC		06/23/2016 16:07	1		DB-624 0.18(mm)
STD 240-235701/13 IC		06/23/2016 16:30	1		DB-624 0.18(mm)
ICV 240-235701/15		06/23/2016 16:52	1	UXC9021.D	DB-624 0.18(mm)
ZZZZZ		06/23/2016 17:15	1		DB-624 0.18(mm)
ZZZZZ		06/23/2016 18:00	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Instrument ID: A3UX15 Start Date: 03/27/2017 08:49

Analysis Batch Number: 272071 End Date: 03/27/2017 20:18

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272071/1		03/27/2017 08:49	1	BFB70327.D	DB-624 0.18(mm)
CCVIS 240-272071/2		03/27/2017 09:21	1	UXC2209.D	DB-624 0.18(mm)
LCS 240-272071/4		03/27/2017 09:44	1	UXC2210.D	DB-624 0.18(mm)
CCV 240-272071/3		03/27/2017 10:07	1	UXC2211.D	DB-624 0.18(mm)
MRL 240-272071/5		03/27/2017 10:29	1	UXC2212.D	DB-624 0.18(mm)
MB 240-272071/6		03/27/2017 10:52	1	UXC2213.D	DB-624 0.18(mm)
ZZZZZ		03/27/2017 11:22	20		DB-624 0.18(mm)
ZZZZZ		03/27/2017 11:44	16.67		DB-624 0.18(mm)
ZZZZZ		03/27/2017 12:07	1		DB-624 0.18(mm)
ZZZZZ		03/27/2017 12:29	1		DB-624 0.18(mm)
ZZZZZ		03/27/2017 12:51	1		DB-624 0.18(mm)
ZZZZZ		03/27/2017 13:14	1		DB-624 0.18(mm)
ZZZZZ		03/27/2017 13:36	1		DB-624 0.18(mm)
ZZZZZ		03/27/2017 13:59	1		DB-624 0.18(mm)
240-76905-1		03/27/2017 17:42	1	UXC2231.D	DB-624 0.18(mm)
240-76905-3		03/27/2017 18:26	1	UXC2233.D	DB-624 0.18(mm)
240-76905-4		03/27/2017 18:48	1	UXC2234.D	DB-624 0.18(mm)
240-76905-6		03/27/2017 19:33	1	UXC2236.D	DB-624 0.18(mm)
240-76904-B-1 MS		03/27/2017 19:55	20	UXC2237.D	DB-624 0.18(mm)
240-76904-B-1 MSD		03/27/2017 20:18	20	UXC2238.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-76905-1

SDG No.:

Instrument ID: A3UX15 Start Date: 03/28/2017 07:51

Analysis Batch Number: 272197 End Date: 03/28/2017 11:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272197/1		03/28/2017 07:51	1	BFB70328A.D	DB-624 0.18(mm)
CCVIS 240-272197/2		03/28/2017 08:34	1	UXC2269.D	DB-624 0.18(mm)
LCS 240-272197/4		03/28/2017 08:56	1	UXC2270.D	DB-624 0.18(mm)
CCV 240-272197/3		03/28/2017 09:18	1	UXC2271.D	DB-624 0.18(mm)
ZZZZZ		03/28/2017 09:41	1		DB-624 0.18(mm)
MB 240-272197/6		03/28/2017 10:04	1	UXC2273.D	DB-624 0.18(mm)
240-76905-2		03/28/2017 10:26	2	UXC2274.D	DB-624 0.18(mm)
240-76905-5		03/28/2017 10:49	2	UXC2275.D	DB-624 0.18(mm)
ZZZZZ		03/28/2017 11:11	33.33		DB-624 0.18(mm)
ZZZZZ		03/28/2017 11:34	1		DB-624 0.18(mm)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW53A-031617	240-76905-2	99
MRC-MW53B-031617	240-76905-3	96
MRC-MW110A-031617	240-76905-4	101
MRC-MW110B-031617	240-76905-5	98
	MB 200-115022/1-A	115
	LCS 200-115022/2-A	103
	LCSD 200-115022/3-A	104

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24401_35.D

Lab ID: LCS 200-115022/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	8.00	8.01	100	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24401_06.D

Lab ID: LCSD 200-115022/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	8.00	8.26	103	3	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Lab File ID: Z24401_07.D Lab Sample ID: MB 200-115022/1-A

Matrix: Water Date Extracted: 03/20/2017 21:30

Instrument ID: CHZ.i Date Analyzed: 03/22/2017 16:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCSD 200-115022/3-A	Z24401_06.D	03/22/2017 16:23
MRC-MW53A-031617	240-76905-2	Z24401_13.D	03/22/2017 18:22
MRC-MW53B-031617	240-76905-3	Z24401_14.D	03/22/2017 18:38
MRC-MW110A-031617	240-76905-4	Z24401_15.D	03/22/2017 18:55
MRC-MW110B-031617	240-76905-5	Z24401_16.D	03/22/2017 19:12
	LCS 200-115022/2-A	Z24401_35.D	03/23/2017 00:33

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-76905-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-115022/1-A

Matrix: Water | Lab File ID: Z24401_07.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 03/20/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/22/2017 16:40

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115085 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	115		46-130

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Lab File ID: Z24230_01.D BFB Injection Date: 03/08/2017

Instrument ID: CHZ.i BFB Injection Time: 10:08

Analysis Batch No.: 114713

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 80.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.3	
175	5.0 - 9.0 % of mass 174	4.9	(7.2) 1
176	>95.0 but <101.0 % of mass 174	66.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-114713/2	Z24230_02.D	03/08/2017	10:20
	IC 200-114713/3	Z24230_03.D	03/08/2017	10:37
	IC 200-114713/4	Z24230_04.D	03/08/2017	10:54
	ICIS 200-114713/5	Z24230_05.D	03/08/2017	11:12
	IC 200-114713/6	Z24230_06.D	03/08/2017	11:29
	IC 200-114713/7	Z24230_07.D	03/08/2017	11:46
	IC 200-114713/8	Z24230_08.D	03/08/2017	12:03
	ICV 200-114713/9	Z24230_09.D	03/08/2017	12:21

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-76905-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-76905-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	2773 110705	6218 242998	14480	27995	48146	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	134256 141434	151964 143621	134009	136068	115570	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Lab Sample ID: ICV 200-114713/9 Calibration Date: 03/08/2017 12:21

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_09.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5752	0.0500	184	200	-7.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Lab File ID: Z24401_03.D BFB Injection Date: 03/22/2017

Instrument ID: CHZ.i BFB Injection Time: 15:37

Analysis Batch No.: 115085

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 80.0 % of mass 95	45.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	80.7	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	>95.0 but <101.0 % of mass 174	77.4	(95.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVL 200-115085/4	Z24401_04.D	03/22/2017	15:48
	LCSD 200-115022/3-A	Z24401_06.D	03/22/2017	16:23
	MB 200-115022/1-A	Z24401_07.D	03/22/2017	16:40
MRC-MW53A-031617	240-76905-2	Z24401_13.D	03/22/2017	18:22
MRC-MW53B-031617	240-76905-3	Z24401_14.D	03/22/2017	18:38
MRC-MW110A-031617	240-76905-4	Z24401_15.D	03/22/2017	18:55
MRC-MW110B-031617	240-76905-5	Z24401_16.D	03/22/2017	19:12
	CCV 200-115085/17	Z24401_17.D	03/22/2017	19:29
	CCV 200-115085/31	Z24401_31.D	03/22/2017	23:26
	LCS 200-115022/2-A	Z24401_35.D	03/23/2017	00:33
	CCV 200-115085/37	Z24401_37.D	03/23/2017	01:06

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Lab Sample ID: CCVL 200-115085/4 Calibration Date: 03/22/2017 15:48

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_04.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7735	0.0500	12.4	10.0	23.9	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6057	0.0500	502	500	0.3	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Lab Sample ID: CCV 200-115085/17 Calibration Date: 03/22/2017 19:29

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_17.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6844	0.0500	110	100	9.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6853	0.0500	568	500	13.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Lab Sample ID: CCV 200-115085/31 Calibration Date: 03/22/2017 23:26

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_31.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6764	0.0500	866	800	8.3	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6760	0.0500	560	500	12.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Lab Sample ID: CCV 200-115085/37 Calibration Date: 03/23/2017 01:06

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_37.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6844	0.0500	110	100	9.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6970	0.0500	577	500	15.5	30.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Sample No.: ICIS 200-114713/5 Date Analyzed: 03/08/2017 11:12

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24230_05.D Heated Purge: (Y/N) N

Calibration ID: 36785

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224595	3.32				
UPPER LIMIT		336893	3.82				
LOWER LIMIT		112298	2.82				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-114713/9		202920	3.32				
CCVL 200-115085/4		270907	3.25				
LCSD 200-115022/3-A		279648	3.23				
MB 200-115022/1-A		214689	3.23				
240-76905-2	MRC-MW53A-031617	306876	3.29				
240-76905-3	MRC-MW53B-031617	281235	3.24				
240-76905-4	MRC-MW110A-031617	288925	3.26				
240-76905-5	MRC-MW110B-031617	269876	3.25				
CCV 200-115085/17		266198	3.26				
CCV 200-115085/31		258214	3.23				
LCS 200-115022/2-A		247541	3.23				
CCV 200-115085/37		257376	3.23				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-114713/1		03/08/2017 10:08	1	Z24230_01.D	Rxi-5ms 0.25(mm)
IC 200-114713/2		03/08/2017 10:20	1	Z24230_02.D	Rxi-5ms 0.25(mm)
IC 200-114713/3		03/08/2017 10:37	1	Z24230_03.D	Rxi-5ms 0.25(mm)
IC 200-114713/4		03/08/2017 10:54	1	Z24230_04.D	Rxi-5ms 0.25(mm)
ICIS 200-114713/5		03/08/2017 11:12	1	Z24230_05.D	Rxi-5ms 0.25(mm)
IC 200-114713/6		03/08/2017 11:29	1	Z24230_06.D	Rxi-5ms 0.25(mm)
IC 200-114713/7		03/08/2017 11:46	1	Z24230_07.D	Rxi-5ms 0.25(mm)
IC 200-114713/8		03/08/2017 12:03	1	Z24230_08.D	Rxi-5ms 0.25(mm)
ICV 200-114713/9		03/08/2017 12:21	1	Z24230_09.D	Rxi-5ms 0.25(mm)
CCVL 200-114713/10		03/08/2017 13:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 13:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:43	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:02	1		Rxi-5ms 0.25(mm)
CCV 200-114713/23		03/08/2017 17:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:07	1		Rxi-5ms 0.25(mm)
CCV 200-114713/37		03/08/2017 21:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:42	1		Rxi-5ms 0.25(mm)

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GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/09/2017 00:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:17	1		Rxi-5ms 0.25(mm)
CCV 200-114713/48		03/09/2017 00:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:51	1		Rxi-5ms 0.25(mm)
CCV 200-114713/50		03/09/2017 01:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:34	1		Rxi-5ms 0.25(mm)
CCV 200-114713/54		03/09/2017 09:50	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/22/2017 15:37

Analysis Batch Number: 115085 End Date: 03/23/2017 09:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-115085/3		03/22/2017 15:37	1	Z24401_03.D	Rxi-5ms 0.25(mm)
CCVL 200-115085/4		03/22/2017 15:48	1	Z24401_04.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:06	1		Rxi-5ms 0.25(mm)
LCSD 200-115022/3-A		03/22/2017 16:23	1	Z24401_06.D	Rxi-5ms 0.25(mm)
MB 200-115022/1-A		03/22/2017 16:40	1	Z24401_07.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:05	1		Rxi-5ms 0.25(mm)
240-76905-2		03/22/2017 18:22	1	Z24401_13.D	Rxi-5ms 0.25(mm)
240-76905-3		03/22/2017 18:38	1	Z24401_14.D	Rxi-5ms 0.25(mm)
240-76905-4		03/22/2017 18:55	1	Z24401_15.D	Rxi-5ms 0.25(mm)
240-76905-5		03/22/2017 19:12	1	Z24401_16.D	Rxi-5ms 0.25(mm)
CCV 200-115085/17		03/22/2017 19:29	1	Z24401_17.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:09	1		Rxi-5ms 0.25(mm)
CCV 200-115085/31		03/22/2017 23:26	1	Z24401_31.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:16	1		Rxi-5ms 0.25(mm)
LCS 200-115022/2-A		03/23/2017 00:33	1	Z24401_35.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:50	1		Rxi-5ms 0.25(mm)
CCV 200-115085/37		03/23/2017 01:06	1	Z24401_37.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 08:57	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 09:13	2		Rxi-5ms 0.25(mm)
CCV 200-115085/40		03/23/2017 09:30	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-76905-1

SDG No.:

Batch Number: 115022 Batch Start Date: 03/20/17 21:30 Batch Analyst: Keith, Robert C

Batch Method: 3535A Batch End Date: 03/20/17 22:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00025		
MB 200-115022/1		3535A, 522		100 mL	2000 uL		100 uL		
LCS 200-115022/2		3535A, 522		100 mL	2000 uL	400 uL	100 uL		
LCSD 200-115022/3		3535A, 522		100 mL	2000 uL	400 uL	100 uL		
240-76905-D-2	MRC-MW53A-031617	3535A, 522	T	100 mL	2000 uL		100 uL		
240-76905-D-3	MRC-MW53B-031617	3535A, 522	T	100 mL	2000 uL		100 uL		
240-76905-D-4	MRC-MW110A-031617	3535A, 522	T	100 mL	2000 uL		100 uL		
240-76905-D-5	MRC-MW110B-031617	3535A, 522	T	100 mL	2000 uL		100 uL		

Batch Notes	
Acid ID	1004720
Acid Name	HCl
First End time	2215
Analyst ID - Reagent Drop Witness	BDL
Solvent Lot #	1023323
Solvent Name	MeCl2
SPE Cartridge ID	8088705
First Start time	2130

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

VOA Calibration Calculations:

Initial Calibration 6/23/2016
Instrument A3UX15

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
1	214485	1656646	10	1.2947	1.2947
2	448345	1663469	10	1.3476	1.3476
5	1027408	1666252	10	1.2332	1.2332
10	2088384	1646184	10	1.2686	1.2686
20	4412001	1673213	10	1.3184	1.3184
40	8827192	1668746	10	1.3224	1.3224
			Average	1.2975	1.2975
			Standard Deviation	0.0413	
			RSD	0.0319	
			%RSD	3.1867	3.2

Internal standard for benzene is fluorobenzene

Continuing Calibration 03/27/2017@ 09:21
Instrument A3UX15

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
10	1602593	1111904	10	1.4413	10.421779	1.441	11.1

MRC Groundwater
SDG 240-76905-1

SAMPLE IDENTIFICATION	MRC-MW53A-031617	
COMPOUND	1,1-dichloroethene	
COMPOUND AREA	34218	
INTERNAL STANDARD AMOUNT (ng)	10	
DILUTION FACTOR	2	
INTERNAL STANDARD AREA	1178840	
AVERAGE RRF	0.2948	
VOLUME OF SAMPLE	5	
VOLUME OF EXTRACT	5.00	
CONCENTRATION =	1.97	ug/L

SVOA Calibration Calculations:

Initial Calibration 3/8/2017
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.01	2773	226947	0.5	0.61094	0.6109
0.02	6218	251612	0.5	0.61782	0.6178
0.05	14480	218926	0.5	0.66141	0.6614
0.1	27995	224595	0.5	0.62323	0.6232
0.2	48146	200782	0.5	0.59948	0.5995
0.4	110705	227238	0.5	0.60897	0.609
0.8	242998	233784	0.5	0.64963	0.6496
			Average	0.62450	0.6245
			Standard Deviation	0.0227	
			RSD	0.0363	
			%RSD	3.63475	3.6

Continuing Calibration 03/22/2017 @ 15:48
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
0.01	4191	270907	0.5	0.7735	23.861118	0.7735	23.9

MRC Groundwater
SDG 240-76905-1

SAMPLE IDENTIFICATION	MRC-MW53A-031617	
COMPOUND	1,4-Dioxane	
COMPOUND AREA	69851	
INTERNAL STANDARD AMOUNT (ng)	0.5	
DILUTION FACTOR	1	
INTERNAL STANDARD AREA	306876	
AVERAGE RRF	0.6245	
VOLUME OF SAMPLE	0.1	
VOLUME OF EXTRACT	2.00	
CONCENTRATION =	3.64	ug/L

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **APRIL 24, 2017**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
MRC GROUNDWATER (GW) – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-76938-1

SAMPLES: 5 / Water / VOC

MRC-MW115A-031717	MRC-MW116A-031717	MRC-MW57A-031717
MRC-MW95B-031717	TB-031717	

OVERVIEW

The sample set for MRC GW, SDG 240-76938-1, consists of four (4) groundwater environmental samples and one (1) trip blank. Samples were analyzed for volatile organic compounds (VOC). No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on March 17, 2017 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Method 8260C analysis and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard areas and recoveries, analyte identification, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- The VOC continuing calibration performed on 03/23/17 at 08:56 on instrument A3UX12 had percent differences (%Ds) for methyl cyclohexane, 2-hexanone, and 1,2,4-trichlorobenzene that were greater than the 20% quality control limit. Samples MRC-MW95B-031717 and MRC-MW115A-031717 were affected. Non-detected results for the aforementioned analytes were qualified as estimated (UJ) in the affected samples.

- The laboratory control sample (LCS) 240-271642/4 associated with preparation batch 271642 had a percent recovery (%R) for methyl cyclohexane that was less than the quality control range. Samples MRC-MW95B-031717 and MRC-MW115A-031717 were associated with this LCS. Non-detected results for methyl cyclohexane were qualified as estimated (UJ) in the associated samples.

- The detected results below the reporting limit (RL) but above the method detection limit (MDL) was qualified as estimated (J).

NOTES

Non-detected results were reported to the MDL.

According to the laboratory case narrative report, the matrix spike (MS)/matrix spike duplicate (MSD) for batch 271291 was not analyzed due to an instrument malfunction, affecting samples TB-031717, MRC-MW116A-031717, and MRC-MW57A-031717. No validation action was taken.

The following analyte was detected in the VOC method blanks at the following maximum concentration:

Analyte	Maximum Concentration	Action Level
Methylene chloride	1.17 ug/L(1)	11.7 ug/L

1 – Maximum concentration detected in method blank associated with preparation batch 271291 affecting samples TB-031717, MRC-MW116A-031717, and MRC-MW57A-031717.
2 – Maximum concentration detected in method blank associated with preparation batch 271642 affecting samples MRC-MW95B-031717 and MRC-MW115A-031717.

Action levels of 10x the maximum concentrations of the common laboratory contaminant methylene chloride were used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were considered in evaluating for blank contamination. No action was necessary, as results for methylene chloride were non-detected in the affected samples.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Several non-detected VOC results were qualified as estimated due to calibration noncompliance. Some non-detected VOC results were qualified as estimated due to LCS %R noncompliance.

Other Factors Affecting Data Quality: One detected result above the RL but less than the MDL was qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Leigh A. Ciofani

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-MW115A-031717			MRC-MW116A-031717			MRC-MW57A-031717			MRC-MW95B-031717		
SDG: 240-76938-1	LAB_ID	240-76938-5			240-76938-2			240-76938-3			240-76938-4		
FRACTION: OV	SAMP_DATE	3/17/2017			3/17/2017			3/17/2017			3/17/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	UJ	C	0.27	U		0.27	U		0.27	UJ	C
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	UJ	C	1.2	U		1.2	U		1.2	UJ	C
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	TB-031717		
SDG: 240-76938-1	LAB_ID	240-76938-1		
FRACTION: OV	SAMP_DATE	3/17/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U	
1,1-DICHLOROETHANE		0.25	U	
1,1-DICHLOROETHENE		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U	
1,2-DIBROMOETHANE		0.23	U	
1,2-DICHLOROBENZENE		0.26	U	
1,2-DICHLOROETHANE		0.3	U	
1,2-DICHLOROPROPANE		0.3	U	
1,3-DICHLOROBENZENE		0.32	U	
1,4-DICHLOROBENZENE		0.23	U	
2-BUTANONE		1	U	
2-HEXANONE		1.2	U	
4-METHYL-2-PENTANONE		0.71	U	
ACETONE		1.8	U	
BENZENE		0.28	U	
BROMODICHLOROMETHANE		0.3	U	
BROMOFORM		0.43	U	
BROMOMETHANE		0.42	U	
CARBON DISULFIDE		0.34	U	
CARBON TETRACHLORIDE		0.35	U	
CHLOROBENZENE		0.32	U	
CHLORODIBROMOMETHANE		0.25	U	
CHLOROETHANE		0.41	U	
CHLOROFORM		0.31	U	
CHLOROMETHANE		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U	
CYCLOHEXANE		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U	
ETHYLBENZENE		0.26	U	
ISOPROPYLBENZENE		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW115A-031717			MRC-MW116A-031717			MRC-MW57A-031717			MRC-MW95B-031717		
SDG: 240-76938-1	LAB_ID	240-76938-5			240-76938-2			240-76938-3			240-76938-4		
FRACTION: OV	SAMP_DATE	3/17/2017			3/17/2017			3/17/2017			3/17/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	UJ	CE	0.45	U		0.45	U		0.45	UJ	CE
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.34	J	P	0.33	U		0.33	U		2.6		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	TB-031717		
SDG: 240-76938-1	LAB_ID	240-76938-1		
FRACTION: OV	SAMP_DATE	3/17/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
METHYL ACETATE		1.4	U	
METHYL CYCLOHEXANE		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U	
METHYLENE CHLORIDE		0.53	U	
STYRENE		0.23	U	
TETRACHLOROETHENE		0.3	U	
TOLUENE		0.23	U	
TOTAL XYLENES		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U	
TRICHLOROETHENE		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U	
VINYL CHLORIDE		0.45	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: MRC-MW115A-031717 | Lab Sample ID: 240-76938-5

Matrix: Water | Lab File ID: U1256098.D

Analysis Method: 8260C | Date Collected: 03/17/2017 14:56

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 19:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: MRC-MW115A-031717 | Lab Sample ID: 240-76938-5

Matrix: Water | Lab File ID: U1256098.D

Analysis Method: 8260C | Date Collected: 03/17/2017 14:56

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 19:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U *	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.34	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-124
1868-53-7	Dibromofluoromethane (Surr)	109		80-120
460-00-4	4-Bromofluorobenzene (Surr)	85		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: MRC-MW116A-031717 | Lab Sample ID: 240-76938-2

Matrix: Water | Lab File ID: UXM1323.D

Analysis Method: 8260C | Date Collected: 03/17/2017 09:20

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 17:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: MRC-MW116A-031717 | Lab Sample ID: 240-76938-2

Matrix: Water | Lab File ID: UXM1323.D

Analysis Method: 8260C | Date Collected: 03/17/2017 09:20

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 17:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	111		80-120
460-00-4	4-Bromofluorobenzene (Surr)	102		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: MRC-MW57A-031717 | Lab Sample ID: 240-76938-3

Matrix: Water | Lab File ID: UXM1324.D

Analysis Method: 8260C | Date Collected: 03/17/2017 10:29

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 17:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: MRC-MW57A-031717 | Lab Sample ID: 240-76938-3

Matrix: Water | Lab File ID: UXM1324.D

Analysis Method: 8260C | Date Collected: 03/17/2017 10:29

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 17:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-124
1868-53-7	Dibromofluoromethane (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: MRC-MW95B-031717 | Lab Sample ID: 240-76938-4

Matrix: Water | Lab File ID: U1256097.D

Analysis Method: 8260C | Date Collected: 03/17/2017 11:42

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 19:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: MRC-MW95B-031717 | Lab Sample ID: 240-76938-4

Matrix: Water | Lab File ID: U1256097.D

Analysis Method: 8260C | Date Collected: 03/17/2017 11:42

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 19:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U *	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	2.6		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-124
1868-53-7	Dibromofluoromethane (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	83		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: TB-031717 | Lab Sample ID: 240-76938-1

Matrix: Water | Lab File ID: UXM1322.D

Analysis Method: 8260C | Date Collected: 03/17/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 16:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: TB-031717 | Lab Sample ID: 240-76938-1

Matrix: Water | Lab File ID: UXM1322.D

Analysis Method: 8260C | Date Collected: 03/17/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 16:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	105		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		63-132

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-76938-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 3/18/2017 11:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-031717 (240-76938-1), MRC-MW116A-031717 (240-76938-2), MRC-MW57A-031717 (240-76938-3), MRC-MW95B-031717 (240-76938-4) and MRC-MW115A-031717 (240-76938-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/21/2017 and 03/23/2017.

Methylene Chloride was detected in method blanks MB 240-271291/7 and MB 240-271642/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The MS/MSD for batch 271291 was not analyzed due to an instrument malfunction: Batch included: TB-031717 (240-76938-1), MRC-MW116A-031717 (240-76938-2) and MRC-MW57A-031717 (240-76938-3).

The laboratory control sample (LCS) for analytical batch 240-271642 recovered outside control limits for the following analyte: Methylcyclohexane. Methylcyclohexane has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified: MRC-MW95B-031717 (240-76938-4), MRC-MW115A-031717 (240-76938-5) and (LCS 240-271642/4).

The continuing calibration verification (CCV) analyzed in batch 240-271642 was outside the method criteria for the following analytes: 2-Hexanone and Methylcyclohexane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated: MRC-MW95B-031717 (240-76938-4), MRC-MW115A-031717 (240-76938-5) and (CCVIS 240-271642/3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76938-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-76938-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-76938-1	TB-031717	Water	03/17/17 00:00	03/18/17 11:00
240-76938-2	MRC-MW116A-031717	Water	03/17/17 09:20	03/18/17 11:00
240-76938-3	MRC-MW57A-031717	Water	03/17/17 10:29	03/18/17 11:00
240-76938-4	MRC-MW95B-031717	Water	03/17/17 11:42	03/18/17 11:00
240-76938-5	MRC-MW115A-031717	Water	03/17/17 14:56	03/18/17 11:00

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

180325 36/C3.3

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Payne	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41092-17889.1
Client Contact: Mr. Stuart Cameron	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:

BALTIMORE

Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Germantown	TAT Requested (days): standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: MD, 20874			
Phone: 301 528-3022	PO #: 1093454		
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776		
Project Name: MRC 2017 GW	Project #: 24015639		
Site: Middle River Center	SSOW#:		Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	VOCs (8260C)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
TB-031717	3/17/17	—	G	Water			2		
MRC-MW116A-031717		0920					3		
MRC-MW57A-031717		1029					3		
MRC-MW95B-031717		1142					3		
MRC-MW115A-031717		1456					3		

240-76938 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3/17/17 1432	TTEC		3/17/17 1436	TA
2		3-17-2017 1723	TestAmerica		03/18/17 1100	TAL
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 46938**

Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: DSO

Cooler Received on 03/18/17 Opened on 03/18/17

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 3.6 °C Corrected Cooler Temp. 3.3 °C

IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 11-15 have been checked at the originating laboratory.		
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # B630301VB	Yes	No
15. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab File ID: BFB3443.D BFB Injection Date: 01/04/2017

Instrument ID: A3UX12 BFB Injection Time: 18:06

Analysis Batch No.: 261782

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 60.0 % of mass 95	45.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	83.1	
175	5.0 - 9.0 % of mass 174	6.2	(7.5) 1
176	95.0 - 101.0 % of mass 174	79.3	(95.5) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-261782/6	U1254930.D	01/04/2017	19:48
	STD8260 240-261782/7	U1254931.D	01/04/2017	20:13
	STD8260 240-261782/8	U1254932.D	01/04/2017	20:37
	ICIS 240-261782/9	U1254933.D	01/04/2017	21:02
	STD8260 240-261782/10	U1254934.D	01/04/2017	21:26
	STD8260 240-261782/11	U1254935.D	01/04/2017	21:51
	ICV 240-261782/18	U1254943.D	01/05/2017	01:07
	ICV 240-261782/19	U1254944.D	01/05/2017	01:31

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-261782/6	U1254930.D
Level 2	STD8260 240-261782/7	U1254931.D
Level 3	STD8260 240-261782/8	U1254932.D
Level 4	ICIS 240-261782/9	U1254933.D
Level 5	STD8260 240-261782/10	U1254934.D
Level 6	STD8260 240-261782/11	U1254935.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.4071 0.3751	0.3756	0.4519	0.3574	0.4285	Ave		0.3993			0.1000	9.1		20.0			
Chloromethane	0.5467 0.4898	0.5242	0.5091	0.4986	0.4962	Ave		0.5108			0.1000	4.2		20.0			
Vinyl chloride	0.5506 0.4910	0.4716	0.5113	0.4820	0.5045	Ave		0.5018			0.1000	5.6		20.0			
Butadiene	0.6591 0.4523	0.5525	0.5156	0.4541	0.4940	Ave		0.5213				14.9		20.0			
Bromomethane	0.3674 0.2557	0.3019	0.2704	0.2713	0.2629	Ave		0.2883			0.0500	14.5		20.0			
Chloroethane	0.3265 0.3193	0.3122	0.3269	0.3184	0.3322	Ave		0.3226			0.0500	2.3		20.0			
Dichlorofluoromethane	0.6796 0.6241	0.6021	0.6070	0.6327	0.6260	Ave		0.6286				4.4		20.0			
Trichlorofluoromethane	0.3828 0.4063	0.3792	0.4420	0.3711	0.4393	Ave		0.4035			0.1000	7.7		20.0			
Ethyl ether	0.2370 0.2839	0.3193	0.2820	0.2868	0.2823	Ave		0.2819				9.3		20.0			
Acrolein	0.0586 0.0465	0.0645	0.0480	0.0480	0.0491	Ave		0.0524				14.0		20.0			
1,1-Dichloroethene	0.5640 0.5494	0.5707	0.5668	0.5651	0.5374	Ave		0.5589			0.1000	2.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2978 0.2897	0.3497	0.3397	0.3218	0.3055	Ave		0.3174			0.0500	7.5		20.0			
Acetone	+++++ 0.1200	0.2215	0.1262	0.1322	0.1245	Lin1	0.2038	0.1206			0.0100				0.9990		0.9900
Iodomethane	0.5878 0.5267	0.5615	0.5247	0.5346	0.5341	Ave		0.5449				4.6		20.0			
Carbon disulfide	1.2899 0.9526	1.1196	1.0120	1.0069	1.0061	Ave		1.0645			0.1000	11.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.6210 0.3277	0.5791	0.5426	0.3933	0.3862	Qua	0.2080	0.4694	-0.002399						0.9960		0.9900
Methyl acetate	0.3912 0.2619	0.3554	0.2642	0.2018	0.2639	Lin1	0.3597	0.2515			0.1000				0.9910		0.9900
Methylene Chloride	+++++ 0.4713	0.6069	0.4991	0.4768	0.4793	Ave		0.5067			0.1000	11.2		20.0			
2-Methyl-2-propanol	0.0464 0.0453	0.0550	0.0433	0.0471	0.0482	Ave		0.0475				8.4		20.0			
Acrylonitrile	0.1536 0.1502	0.1591	0.1458	0.1521	0.1493	Ave		0.1517				3.0		20.0			
trans-1,2-Dichloroethene	0.4305 0.4370	0.4475	0.4276	0.4424	0.4340	Ave		0.4365			0.1000	1.7		20.0			
Methyl tert-butyl ether	1.0427 1.0276	1.0339	0.9955	1.0040	0.9988	Ave		1.0171			0.1000	2.0		20.0			
Hexane	0.4486 0.3943	0.4501	0.4630	0.4278	0.4054	Ave		0.4315				6.3		20.0			
1,1-Dichloroethane	0.5335 0.5647	0.6038	0.5627	0.5728	0.5722	Ave		0.5683			0.2000	4.0		20.0			
Vinyl acetate	0.8483 0.6698	0.8788	0.6659	0.6839	0.6710	Ave		0.7363				13.5		20.0			
cis-1,2-Dichloroethene	0.4797 0.4613	0.4772	0.4761	0.4680	0.4663	Ave		0.4714			0.1000	1.5		20.0			
2,2-Dichloropropane	0.2862 0.2300	0.2787	0.2689	0.2557	0.2419	Ave		0.2602				8.4		20.0			
2-Butanone (MEK)	+++++ 0.1870	0.2513	0.1753	0.1880	0.1879	Ave		0.1979			0.0100	15.3		20.0			
Chlorobromomethane	0.2504 0.2548	0.2768	0.2645	0.2612	0.2670	Ave		0.2625				3.6		20.0			
Tetrahydrofuran	0.1437 0.1224	0.1462	0.1238	0.1280	0.1244	Ave		0.1314				8.1		20.0			
Chloroform	0.4612 0.4916	0.5153	0.5004	0.4949	0.4938	Ave		0.4929			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.3724 0.3778	0.3484	0.4017	0.3901	0.3914	Ave		0.3803			0.1000	4.9		20.0			
Cyclohexane	0.4902 0.4885	0.5629	0.5622	0.5272	0.4938	Ave		0.5208			0.1000	6.8		20.0			
1,1-Dichloropropene	0.4736 0.4223	0.4147	0.4437	0.4344	0.4313	Ave		0.4367				4.7		20.0			
Carbon tetrachloride	0.2764 0.3400	0.3256	0.3542	0.3458	0.3376	Ave		0.3299			0.1000	8.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0145 0.0138	0.0182	0.0131	0.0142	0.0143	Ave		0.0147				12.2		20.0			
Benzene	1.3184 1.3483	1.4147	1.3479	1.3538	1.3535	Ave		1.3561			0.5000	2.3		20.0			
1,2-Dichloroethane	0.3651 0.4052	0.4177	0.3982	0.4103	0.3990	Ave		0.3992			0.1000	4.6		20.0			
n-Heptane	+++++ 0.1963	0.8681	0.2777	0.2325	0.2096	Lin1	0.6975	0.1906							0.9980		0.9900
Trichloroethene	0.3521 0.3308	0.3278	0.3305	0.3354	0.3293	Ave		0.3343			0.1500	2.7		20.0			
Methylcyclohexane	0.5425 0.4799	0.5349	0.5480	0.5216	0.4945	Ave		0.5202			0.1000	5.3		20.0			
1,2-Dichloropropane	0.2940 0.3277	0.3284	0.3293	0.3345	0.3338	Ave		0.3246			0.1000	4.7		20.0			
Dibromomethane	0.2154 0.2187	0.2359	0.2135	0.2215	0.2231	Ave		0.2213				3.6		20.0			
1,4-Dioxane	+++++ 0.0053	0.0047	0.0043	0.0056	0.0058	Ave		0.0051				12.2		20.0			
Dichlorobromomethane	0.3039 0.3837	0.3136	0.3569	0.3820	0.3867	Ave		0.3545			0.1500	10.5		20.0			
2-Chloroethyl vinyl ether	0.2031 0.2247	0.2155	0.2079	0.2154	0.2210	Ave		0.2146				3.7		20.0			
cis-1,3-Dichloropropene	0.5374 0.5622	0.4897	0.5287	0.5494	0.5611	Ave		0.5381			0.1500	5.0		20.0			
4-Methyl-2-pentanone (MIBK)	0.3710 0.3700	0.4169	0.3623	0.3690	0.3699	Ave		0.3765			0.0500	5.3		20.0			
Toluene	2.4054 1.9097	2.1056	1.9344	1.9227	1.9428	Ave		2.0367			0.4000	9.5		20.0			
trans-1,3-Dichloropropene	0.6033 0.6816	0.5873	0.6294	0.6594	0.6759	Ave		0.6395			0.1000	6.1		20.0			
Ethyl methacrylate	0.6392 0.6699	0.7146	0.6403	0.6515	0.6768	Ave		0.6654				4.3		20.0			
1,1,2-Trichloroethane	0.3671 0.4004	0.4116	0.3953	0.3989	0.3994	Ave		0.3954			0.1000	3.8		20.0			
Tetrachloroethene	0.4602 0.4473	0.4499	0.4621	0.4561	0.4463	Ave		0.4536			0.1500	1.5		20.0			
1,3-Dichloropropane	0.7612 0.7606	0.7546	0.7525	0.7556	0.7656	Ave		0.7583				0.6		20.0			
2-Hexanone	0.4349 0.3767	0.4193	0.3752	0.3745	0.3792	Ave		0.3933			0.0500	6.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2505 0.3980	0.1957	0.3295	0.3617	0.3875	Lin1	-0.126	0.3877							0.9970		0.9900
Ethylene Dibromide	0.3477 0.4074	0.3918	0.3876	0.4160	0.3998	Ave		0.3917				6.1		20.0			
Chlorobenzene	1.3885 1.2746	1.2181	1.2466	1.2582	1.2712	Ave		1.2762			0.3000	4.6		20.0			
1,1,1,2-Tetrachloroethane	0.3475 0.4176	0.3761	0.3946	0.4071	0.4097	Ave		0.3921				6.7		20.0			
Ethylbenzene	0.6162 0.6897	0.6814	0.6794	0.6853	0.6928	Ave		0.6741				4.3		20.0			
m-Xylene & p-Xylene	0.8299 0.8801	0.8167	0.8549	0.8704	0.8774	Ave		0.8549				3.1		20.0			
o-Xylene	0.7826 0.8896	0.8376	0.8457	0.8789	0.8880	Ave		0.8537				4.8		20.0			
Styrene	1.4423 1.5513	1.4182	1.4227	1.4953	1.5407	Ave		1.4784			0.3000	4.0		20.0			
Bromoform	+++++ 0.2562	0.0737	0.1755	0.2107	0.2451	Lin1	-0.230	0.2471			0.1000				0.9930		0.9900
Isopropylbenzene	2.0448 2.1338	1.9970	2.0977	2.1108	2.1135	Ave		2.0829			0.1000	2.5		20.0			
1,1,2,2-Tetrachloroethane	1.0211 0.9923	1.0907	1.0040	1.0174	0.9746	Ave		1.0167			0.3000	3.9		20.0			
Bromobenzene	0.8713 0.9105	0.9356	0.9302	0.9299	0.9096	Ave		0.9145				2.6		20.0			
1,2,3-Trichloropropane	0.2029 0.3176	0.3604	0.3169	0.3224	0.3246	Ave		0.3075				17.5		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.2345	0.0779	0.1757	0.2039	0.2343	Lin1	-0.194	0.2315							0.9960		0.9900
N-Propylbenzene	0.9262 0.9528	0.9436	0.9708	0.9948	0.9806	Ave		0.9615				2.6		20.0			
2-Chlorotoluene	0.7637 0.8271	0.7619	0.8313	0.8573	0.8462	Ave		0.8146				5.1		20.0			
1,3,5-Trimethylbenzene	2.8199 2.8972	2.7248	2.9305	2.9894	2.9509	Ave		2.8855				3.4		20.0			
4-Chlorotoluene	0.8573 0.8935	0.8134	0.8887	0.9113	0.9080	Ave		0.8787				4.2		20.0			
tert-Butylbenzene	2.5660 2.5018	2.4943	2.5784	2.6222	2.5580	Ave		2.5535				1.9		20.0			
1,2,4-Trimethylbenzene	3.0654 3.0898	2.9766	3.0641	3.1925	3.1619	Ave		3.0917				2.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.4904 3.6046	3.6075	3.7613	3.7660	3.6807	Ave		3.6517				2.9		20.0			
1,3-Dichlorobenzene	1.8328 1.8172	1.8411	1.8028	1.8787	1.8420	Ave		1.8358			0.6000	1.4		20.0			
4-Isopropyltoluene	3.2094 3.2422	3.0996	3.2455	3.3867	3.2893	Ave		3.2455				2.9		20.0			
1,4-Dichlorobenzene	1.9452 1.8706	1.9787	1.8895	1.9378	1.8836	Ave		1.9176			0.5000	2.2		20.0			
n-Butylbenzene	2.8330 2.7474	2.7183	2.7930	2.8584	2.7784	Ave		2.7881				1.9		20.0			
1,2-Dichlorobenzene	1.8001 1.8015	1.8403	1.8269	1.8591	1.8234	Ave		1.8252			0.4000	1.2		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.2453	0.1484	0.2133	0.2399	0.2533	Ave		0.2200			0.0500	19.4		20.0			
1,2,4-Trichlorobenzene	1.4292 1.2461	1.2900	1.3195	1.2997	1.2942	Ave		1.3131			0.2000	4.7		20.0			
Hexachlorobutadiene	0.5236 0.4603	0.5333	0.5126	0.5078	0.4741	Ave		0.5020				5.7		20.0			
Naphthalene	3.9068 3.7804	3.8057	3.6850	3.8663	3.8784	Ave		3.8204				2.1		20.0			
1,2,3-Trichlorobenzene	1.2668 1.1884	1.2382	1.1763	1.2264	1.2065	Ave		1.2171				2.7		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2626	0.2609	0.2578	0.2699	0.2631	Ave		0.2628				1.7		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3335	0.3532	0.2921	0.3517	0.3414	Ave		0.3344				7.5		20.0			
Toluene-d8 (Surr)	+++++ 1.5865	1.6558	1.5199	1.6136	1.6097	Ave		1.5971				3.1		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.6336	0.6570	0.5985	0.6334	0.6411	Ave		0.6327				3.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-261782/6	U1254930.D
Level 2	STD8260 240-261782/7	U1254931.D
Level 3	STD8260 240-261782/8	U1254932.D
Level 4	ICIS 240-261782/9	U1254933.D
Level 5	STD8260 240-261782/10	U1254934.D
Level 6	STD8260 240-261782/11	U1254935.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	9445 1095006	16780	211900	338419	819017	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	12683 1429778	23417	238703	472093	948397	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	12772 1433279	21071	239738	456389	964209	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	15291 1320436	24683	241738	429963	944254	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	8524 746426	13486	126766	256913	502456	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	7574 932080	13947	153294	301460	634992	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	15766 1821865	26898	284639	599087	1196410	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	8880 1185963	16942	207261	351437	839711	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5499 828772	14267	132216	271540	539607	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	6797 678933	14403	112611	227026	468890	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	13083 1603841	25495	265782	535048	1027047	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	6909 845752	15621	159277	304674	583860	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 700393	19792	118346	250307	475980	+++++ 120	2.00	20.0	40.0	80.0
Iodomethane	FB	Ave	13636 1537628	25085	246015	506231	1020767	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	29924 2780676	50020	474536	953451	1922993	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Qua	14405 956641	25870	254417	372398	738176	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Lin1	45370 3821988	79391	619443	955365	2522359	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Ave	+++++ 1375688	27112	234003	451439	916108	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	10771 1322542	24555	202835	445844	920655	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	35624 4384614	71063	683751	1440510	2852774	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	9986 1275603	19991	200497	418865	829587	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	24188 2999739	46189	466775	950647	1909052	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	10406 1151036	20108	217074	405056	774800	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	12377 1648375	26975	263836	542412	1093578	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	19680 1955335	39261	312222	647575	1282534	0.500 60.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	11128 1346453	21321	223238	443142	891286	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	6639 671293	12453	126077	242165	462339	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	+++++ 1091709	22457	164391	356095	718272	+++++ 120	2.00	20.0	40.0	80.0
Chlorobromomethane	FB	Ave	5809 743682	12365	124041	247333	510403	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	6665 714861	13064	116091	242394	475376	1.00 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	10698 1434955	23020	234626	468653	943863	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	8640 1102819	15564	188352	369383	748084	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	11371 1426080	25147	263599	499200	943736	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	10987 1232833	18525	208031	411363	824341	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6413 992589	14546	166068	327456	645254	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	8431 1010367	20368	154019	335475	684152	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	30585 3935764	63201	632025	1281927	2586957	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	8470 1182690	18663	186690	388544	762537	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 573051	38783	130226	220197	400667	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	8167 965736	14644	154970	317630	629406	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	12586 1400877	23896	256940	493905	945060	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6820 956663	14671	154387	316688	638069	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	4996 638477	10540	100093	209726	426446	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 308783	4160	40553	106727	220842	+++++ 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7049 1119961	14011	167365	361732	739055	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	9422 1311838	19259	194987	407901	844747	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	12467 1641171	21877	247892	520232	1072508	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	17213 2160053	37250	339767	698779	1413785	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	42489 4214191	70862	682365	1373653	2790291	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	10656 1504174	19765	222013	471084	970795	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	11290 1478275	24051	225866	465467	972005	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6484 883632	13852	139430	284992	573611	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	8129 987076	15141	163015	325841	640977	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	13446 1678382	25395	265453	539839	1099500	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	15364 1662791	28225	264701	535129	1089302	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Lin1	4424 878232	6587	116226	258437	556486	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	6142 899118	13185	136724	297246	574178	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	24526 2812656	40996	439739	898936	1825736	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6139 921652	12659	139201	290859	588395	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	10884 1522028	22933	239661	489644	995038	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	14659 1942109	27486	301581	621835	1260126	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	13823 1963035	28190	298335	627956	1275386	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	25476 3423295	47730	501868	1068292	2212839	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Lin1	+++++ 565322	2479	61911	150526	351958	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	36119 4708758	67207	739978	1508090	3035429	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	10620 1380785	22008	214140	437532	863924	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	9062 1266977	18880	198414	399870	806252	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2110 441886	7273	67586	138643	287731	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Lin1	+++++ 326369	1572	37467	87689	207721	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	9633 1325802	19041	207071	427813	869205	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7943 1150968	15374	177310	368688	750054	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	29328 4031466	54982	625051	1285571	2615771	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	8916 1243292	16413	189553	391884	804847	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	26687 3481272	50332	549959	1127636	2267450	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	31881 4299476	60064	653556	1372873	2802749	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	36301 5015834	72793	802266	1619500	3262646	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	19062 2528671	37150	384515	807898	1632791	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	33379 4511642	62546	692247	1456392	2915743	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	20231 2603032	39928	403017	833344	1669623	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	29464 3823084	54852	595717	1229218	2462849	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	18722 2506852	37134	389666	799490	1616336	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 341273	2995	45489	103169	224574	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	14864 1733998	26031	281440	558923	1147209	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	5446 640454	10762	109344	218368	420273	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	40632 5260480	76794	785974	1662633	3437871	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	13175 1653714	24986	250905	527391	1069484	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 766464	11655	120872	255531	502858	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 973627	15778	136975	333030	652582	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 3501062	55726	536153	1152834	2311909	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1398126	22112	211121	452568	920721	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: ICV 240-261782/18 Calibration Date: 01/05/2017 01:07

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 19:48

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/04/2017 21:51

Lab File ID: U1254943.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3993	0.2878	0.1000	0.0144	0.0200	-27.9*	20.0
Chloromethane	Ave	0.5108	0.4543	0.1000	0.0178	0.0200	-11.1	20.0
Vinyl chloride	Ave	0.5018	0.4618	0.1000	0.0184	0.0200	-8.0	20.0
Butadiene	Ave	0.5213	0.4350		0.0167	0.0200	-16.5	30.0
Bromomethane	Ave	0.2883	0.2646	0.0500	0.0184	0.0200	-8.2	20.0
Chloroethane	Ave	0.3226	0.3184	0.0500	0.0197	0.0200	-1.3	20.0
Dichlorofluoromethane	Ave	0.6286	0.6128		0.0195	0.0200	-2.5	20.0
Trichlorofluoromethane	Ave	0.4035	0.4064	0.1000	0.0201	0.0200	0.7	20.0
Ethyl ether	Ave	0.2819	0.2972		0.0211	0.0200	5.4	20.0
Acrolein	Ave	0.0524	0.0444		0.0846	0.100	-15.4	50.0
1,1-Dichloroethene	Ave	0.5589	0.5705	0.1000	0.0204	0.0200	2.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3174	0.3075	0.0500	0.0194	0.0200	-3.1	20.0
Acetone	Lin1		0.1183	0.0100	0.0375	0.0400	-6.2	50.0
Iodomethane	Ave	0.5449	0.5891		0.0216	0.0200	8.1	20.0
Carbon disulfide	Ave	1.065	1.023	0.1000	0.0192	0.0200	-3.9	20.0
3-Chloro-1-propene	Qua		0.5411		0.0261	0.0200	30.5*	20.0
Methyl acetate	Lin1		0.2730	0.1000	0.107	0.100	7.2	20.0
Methylene Chloride	Ave	0.5067	0.4950	0.1000	0.0195	0.0200	-2.3	50.0
2-Methyl-2-propanol	Ave	0.0475	0.0495		0.208	0.200	4.1	50.0
Acrylonitrile	Ave	0.1517	0.1529		0.202	0.200	0.8	20.0
trans-1,2-Dichloroethene	Ave	0.4365	0.4606	0.1000	0.0211	0.0200	5.5	20.0
Methyl tert-butyl ether	Ave	1.017	1.041	0.1000	0.0205	0.0200	2.4	20.0
Hexane	Ave	0.4315	0.4054		0.0188	0.0200	-6.1	20.0
1,1-Dichloroethane	Ave	0.5683	0.5878	0.2000	0.0207	0.0200	3.4	20.0
Vinyl acetate	Ave	0.7363	0.5573		0.0151	0.0200	-24.3	50.0
2,2-Dichloropropane	Ave	0.2602	0.2435		0.0187	0.0200	-6.4	20.0
cis-1,2-Dichloroethene	Ave	0.4714	0.4743	0.1000	0.0201	0.0200	0.6	20.0
2-Butanone (MEK)	Ave	0.1979	0.1837	0.0100	0.0371	0.0400	-7.2	20.0
Chlorobromomethane	Ave	0.2625	0.2722		0.0207	0.0200	3.7	20.0
Tetrahydrofuran	Ave	0.1314	0.1259		0.0383	0.0400	-4.2	20.0
Chloroform	Ave	0.4929	0.5210	0.2000	0.0211	0.0200	5.7	20.0
1,1,1-Trichloroethane	Ave	0.3803	0.4047	0.1000	0.0213	0.0200	6.4	20.0
Cyclohexane	Ave	0.5208	0.4803	0.1000	0.0184	0.0200	-7.8	20.0
1,1-Dichloropropene	Ave	0.4367	0.4423		0.0203	0.0200	1.3	20.0
Carbon tetrachloride	Ave	0.3299	0.3495	0.1000	0.0212	0.0200	5.9	20.0
Isobutyl alcohol	Ave	0.0147	0.0145		0.491	0.500	-1.8	20.0
Benzene	Ave	1.356	1.396	0.5000	0.0206	0.0200	2.9	20.0
1,2-Dichloroethane	Ave	0.3992	0.4226	0.1000	0.0212	0.0200	5.8	20.0
n-Heptane	Lin1		0.2182		0.0192	0.0200	-3.8	20.0
Trichloroethene	Ave	0.3343	0.3556	0.1500	0.0213	0.0200	6.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: ICV 240-261782/18 Calibration Date: 01/05/2017 01:07

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 19:48

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/04/2017 21:51

Lab File ID: U1254943.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5202	0.4745	0.1000	0.0182	0.0200	-8.8	20.0
1,2-Dichloropropane	Ave	0.3246	0.3449	0.1000	0.0212	0.0200	6.2	20.0
Dibromomethane	Ave	0.2213	0.2343		0.0212	0.0200	5.9	20.0
1,4-Dioxane	Ave	0.0051	0.0060		0.463	0.400	15.8	50.0
Dichlorobromomethane	Ave	0.3545	0.3823	0.1500	0.0216	0.0200	7.8	20.0
2-Chloroethyl vinyl ether	Ave	0.2146	0.2189		0.0204	0.0200	2.0	20.0
cis-1,3-Dichloropropene	Ave	0.5381	0.5593	0.1500	0.0208	0.0200	3.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3765	0.3697	0.0500	0.0393	0.0400	-1.8	20.0
Toluene	Ave	2.037	1.944	0.4000	0.0191	0.0200	-4.5	20.0
trans-1,3-Dichloropropene	Ave	0.6395	0.6317	0.1000	0.0198	0.0200	-1.2	20.0
Ethyl methacrylate	Ave	0.6654	0.6813		0.0205	0.0200	2.4	20.0
1,1,2-Trichloroethane	Ave	0.3954	0.4136	0.1000	0.0209	0.0200	4.6	20.0
Tetrachloroethene	Ave	0.4536	0.4502	0.1500	0.0198	0.0200	-0.8	20.0
1,3-Dichloropropane	Ave	0.7583	0.7649		0.0202	0.0200	0.9	20.0
2-Hexanone	Ave	0.3933	0.3531	0.0500	0.0359	0.0400	-10.2	20.0
Chlorodibromomethane	Lin1		0.3487		0.0183	0.0200	-8.4	20.0
Ethylene Dibromide	Ave	0.3917	0.4208		0.0215	0.0200	7.4	20.0
Chlorobenzene	Ave	1.276	1.259	0.3000	0.0197	0.0200	-1.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3921	0.4147		0.0212	0.0200	5.8	20.0
Ethylbenzene	Ave	0.6741	0.6946		0.0206	0.0200	3.0	20.0
m-Xylene & p-Xylene	Ave	0.8549	0.8695		0.0203	0.0200	1.7	20.0
o-Xylene	Ave	0.8537	0.8584		0.0201	0.0200	0.5	20.0
Styrene	Ave	1.478	1.504	0.3000	0.0204	0.0200	1.8	20.0
Bromoform	Lin1		0.2023	0.1000	0.0173	0.0200	-13.5	20.0
Isopropylbenzene	Ave	2.083	2.094	0.1000	0.0201	0.0200	0.5	20.0
1,1,2,2-Tetrachloroethane	Ave	1.017	0.9787	0.3000	0.0193	0.0200	-3.7	20.0
Bromobenzene	Ave	0.9145	0.9132		0.0200	0.0200	-0.1	20.0
1,2,3-Trichloropropane	Ave	0.3075	0.3313		0.0216	0.0200	7.8	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.1574		0.0144	0.0200	-27.8*	20.0
N-Propylbenzene	Ave	0.9615	0.9167		0.0191	0.0200	-4.7	20.0
2-Chlorotoluene	Ave	0.8146	0.8060		0.0198	0.0200	-1.1	20.0
1,3,5-Trimethylbenzene	Ave	2.885	2.806		0.0194	0.0200	-2.8	20.0
4-Chlorotoluene	Ave	0.8787	0.8588		0.0195	0.0200	-2.3	20.0
tert-Butylbenzene	Ave	2.553	2.444		0.0191	0.0200	-4.3	20.0
1,2,4-Trimethylbenzene	Ave	3.092	2.953		0.0191	0.0200	-4.5	20.0
sec-Butylbenzene	Ave	3.652	3.440		0.0188	0.0200	-5.8	20.0
1,3-Dichlorobenzene	Ave	1.836	1.792	0.6000	0.0195	0.0200	-2.4	20.0
4-Isopropyltoluene	Ave	3.245	3.094		0.0191	0.0200	-4.7	20.0
1,4-Dichlorobenzene	Ave	1.918	1.875	0.5000	0.0196	0.0200	-2.2	20.0
n-Butylbenzene	Ave	2.788	2.543		0.0182	0.0200	-8.8	20.0
1,2-Dichlorobenzene	Ave	1.825	1.801	0.4000	0.0197	0.0200	-1.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: ICV 240-261782/18 Calibration Date: 01/05/2017 01:07

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 19:48

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/04/2017 21:51

Lab File ID: U1254943.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2200	0.2333	0.0500	0.0212	0.0200	6.0	50.0
1,2,4-Trichlorobenzene	Ave	1.313	1.244	0.2000	0.0189	0.0200	-5.3	50.0
Hexachlorobutadiene	Ave	0.5020	0.4443		0.0177	0.0200	-11.5	20.0
Naphthalene	Ave	3.820	3.757		0.0197	0.0200	-1.7	50.0
1,2,3-Trichlorobenzene	Ave	1.217	1.151		0.0189	0.0200	-5.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2628	0.2565		0.0161	0.0165	-2.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3344	0.3346		0.0165	0.0165	0.0	20.0
Toluene-d8 (Surr)	Ave	1.597	1.571		0.0162	0.0165	-1.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6327	0.6295		0.0164	0.0165	-0.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: ICV 240-261782/19 Calibration Date: 01/05/2017 01:31

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 19:48

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/04/2017 21:51

Lab File ID: U1254944.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2628	0.2634		0.0166	0.0165	0.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3344	0.3090		0.0153	0.0165	-7.6	20.0
Toluene-d8 (Surr)	Ave	1.597	1.565		0.0162	0.0165	-2.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6327	0.6139		0.0160	0.0165	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: ICV 240-261782/19 Calibration Date: 01/05/2017 01:31

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 22:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/05/2017 00:42

Lab File ID: U1254944.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0554		0.203	0.200	1.7	20.0
Isopropyl ether	Ave	0.2871	0.3137		0.0219	0.0200	9.3	20.0
2-Chloro-1,3-butadiene	Ave	0.4652	0.4981		0.0214	0.0200	7.1	20.0
Tert-butyl ethyl ether	Ave	1.012	1.052		0.0208	0.0200	4.0	20.0
Ethyl acetate	Ave	0.3687	0.3669		0.0398	0.0400	-0.5	50.0
Propionitrile	Ave	0.0606	0.0643		0.212	0.200	6.2	20.0
Methacrylonitrile	Ave	0.2389	0.2449		0.205	0.200	2.5	20.0
Tert-amyl methyl ether	Ave	1.052	1.071		0.0204	0.0200	1.8	20.0
n-Butanol	Ave	0.0138	0.0140		0.506	0.500	1.1	20.0
Ethyl acrylate	Ave	0.5026	0.5184		0.0206	0.0200	3.1	20.0
Methyl methacrylate	Ave	0.3296	0.3399		0.0413	0.0400	3.1	20.0
2-Nitropropane	Ave	0.0922	0.0978		0.0425	0.0400	6.2	20.0
n-Butyl acetate	Ave	0.7717	0.7705		0.0200	0.0200	-0.2	30.0
1-Chlorohexane	Ave	0.5718	0.5979		0.0209	0.0200	4.6	20.0
Cyclohexanone	Ave	0.0210	0.0217		0.206	0.200	3.2	20.0
Pentachloroethane	Qua		0.1646		0.0288	0.0400	-27.9*	20.0
1,2,3-Trimethylbenzene	Ave	3.228	3.325		0.0206	0.0200	3.0	20.0
Benzyl chloride	Lin1		1.945		0.0207	0.0200	3.4	20.0
1,3,5-Trichlorobenzene	Ave	1.297	1.358		0.0209	0.0200	4.7	20.0
2-Methylnaphthalene	Ave	2.319	2.463		0.0425	0.0400	6.2	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab File ID: BFB3504.D BFB Injection Date: 03/23/2017

Instrument ID: A3UX12 BFB Injection Time: 08:29

Analysis Batch No.: 271642

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 60.0 % of mass 95	46.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	78.9	
175	5.0 - 9.0 % of mass 174	5.9	(7.5) 1
176	95.0 - 101.0 % of mass 174	78.2	(99.2) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-271642/3	U1256075.D	03/23/2017	08:56
	LCS 240-271642/4	U1256076.D	03/23/2017	09:20
	CCV 240-271642/5	U1256077.D	03/23/2017	09:45
	MB 240-271642/7	U1256079.D	03/23/2017	10:34
MRC-MW95B-031717	240-76938-4	U1256097.D	03/23/2017	19:13
MRC-MW115A-031717	240-76938-5	U1256098.D	03/23/2017	19:37
	240-76678-A-3 MS	U1256099.D	03/23/2017	20:02
	240-76678-A-3 MSD	U1256100.D	03/23/2017	20:27

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Lab Sample ID: CCVIS 240-271642/3 | Calibration Date: 03/23/2017 08:56

Instrument ID: A3UX12 | Calib Start Date: 01/04/2017 19:48

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 01/04/2017 21:51

Lab File ID: U1256075.D | Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3993	0.4271	0.1000	0.0214	0.0200	7.0	20.0
Chloromethane	Ave	0.5108	0.5958	0.1000	0.0233	0.0200	16.6	20.0
Vinyl chloride	Ave	0.5018	0.5518	0.1000	0.0220	0.0200	9.9	20.0
Butadiene	Ave	0.5213	0.4761		0.0183	0.0200	-8.7	20.0
Bromomethane	Ave	0.2883	0.2872	0.0500	0.0199	0.0200	-0.4	20.0
Chloroethane	Ave	0.3226	0.3511	0.0500	0.0218	0.0200	8.8	20.0
Dichlorofluoromethane	Ave	0.6286	0.7288		0.0232	0.0200	15.9	20.0
Trichlorofluoromethane	Ave	0.4035	0.4336	0.1000	0.0215	0.0200	7.5	20.0
Ethyl ether	Ave	0.2819	0.3140		0.0223	0.0200	11.4	20.0
Acrolein	Ave	0.0524	0.0490		0.0934	0.100	-6.6	50.0
1,1-Dichloroethene	Ave	0.5589	0.6148	0.1000	0.0220	0.0200	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3174	0.2853	0.0500	0.0180	0.0200	-10.1	20.0
Acetone	Lin1		0.1401	0.0100	0.0448	0.0400	12.0	50.0
Iodomethane	Ave	0.5449	0.5720		0.0210	0.0200	5.0	20.0
Carbon disulfide	Ave	1.065	1.071	0.1000	0.0201	0.0200	0.7	20.0
3-Chloro-1-propene	Qua		0.5494		0.0266	0.0200	32.9*	20.0
Methyl acetate	Lin1		0.2522	0.1000	0.0989	0.100	-1.1	20.0
Methylene Chloride	Ave	0.5067	0.5538	0.1000	0.0219	0.0200	9.3	50.0
2-Methyl-2-propanol	Ave	0.0475	0.0354		0.149	0.200	-25.5	50.0
Acrylonitrile	Ave	0.1517	0.1405		0.185	0.200	-7.4	20.0
trans-1,2-Dichloroethene	Ave	0.4365	0.4869	0.1000	0.0223	0.0200	11.5	20.0
Methyl tert-butyl ether	Ave	1.017	0.9307	0.1000	0.0183	0.0200	-8.5	20.0
Hexane	Ave	0.4315	0.3271		0.0152	0.0200	-24.2*	20.0
1,1-Dichloroethane	Ave	0.5683	0.6341	0.2000	0.0223	0.0200	11.6	20.0
Vinyl acetate	Ave	0.7363	0.5642		0.0153	0.0200	-23.4	50.0
2,2-Dichloropropane	Ave	0.2602	0.2640		0.0203	0.0200	1.4	20.0
cis-1,2-Dichloroethene	Ave	0.4714	0.5426	0.1000	0.0230	0.0200	15.1	20.0
2-Butanone (MEK)	Ave	0.1979	0.1804	0.0100	0.0365	0.0400	-8.8	20.0
Chlorobromomethane	Ave	0.2625	0.2916		0.0222	0.0200	11.1	20.0
Tetrahydrofuran	Ave	0.1314	0.1032		0.0314	0.0400	-21.5*	20.0
Chloroform	Ave	0.4929	0.5836	0.2000	0.0237	0.0200	18.4	20.0
1,1,1-Trichloroethane	Ave	0.3803	0.3613	0.1000	0.0190	0.0200	-5.0	20.0
Cyclohexane	Ave	0.5208	0.4532	0.1000	0.0174	0.0200	-13.0	20.0
1,1-Dichloropropene	Ave	0.4367	0.4503		0.0206	0.0200	3.1	20.0
Carbon tetrachloride	Ave	0.3299	0.2947	0.1000	0.0179	0.0200	-10.7	20.0
Isobutyl alcohol	Ave	0.0147	0.0098		0.333	0.500	-33.4*	20.0
Benzene	Ave	1.356	1.511	0.5000	0.0223	0.0200	11.4	20.0
1,2-Dichloroethane	Ave	0.3992	0.4545	0.1000	0.0228	0.0200	13.8	20.0
n-Heptane	Lin1		0.1909		0.0164	0.0200	-18.1	20.0
Trichloroethene	Ave	0.3343	0.3644	0.1500	0.0218	0.0200	9.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: CCVIS 240-271642/3 Calibration Date: 03/23/2017 08:56

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 19:48

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/04/2017 21:51

Lab File ID: U1256075.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5202	0.4021	0.1000	0.0155	0.0200	-22.7*	20.0
1,2-Dichloropropane	Ave	0.3246	0.3784	0.1000	0.0233	0.0200	16.6	20.0
Dibromomethane	Ave	0.2213	0.2322		0.0210	0.0200	4.9	20.0
1,4-Dioxane	Ave	0.0051	0.0042		0.328	0.400	-18.1	50.0
Dichlorobromomethane	Ave	0.3545	0.4038	0.1500	0.0228	0.0200	13.9	20.0
2-Chloroethyl vinyl ether	Ave	0.2146	0.1788		0.0333	0.0400	-16.7	20.0
cis-1,3-Dichloropropene	Ave	0.5381	0.5934	0.1500	0.0221	0.0200	10.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3765	0.3319	0.0500	0.0353	0.0400	-11.9	20.0
Toluene	Ave	2.037	1.863	0.4000	0.0183	0.0200	-8.5	20.0
trans-1,3-Dichloropropene	Ave	0.6395	0.5953	0.1000	0.0186	0.0200	-6.9	20.0
Ethyl methacrylate	Ave	0.6654	0.5680		0.0171	0.0200	-14.6	20.0
1,1,2-Trichloroethane	Ave	0.3954	0.3719	0.1000	0.0188	0.0200	-6.0	20.0
Tetrachloroethene	Ave	0.4536	0.3771	0.1500	0.0166	0.0200	-16.9	20.0
1,3-Dichloropropane	Ave	0.7583	0.7315		0.0193	0.0200	-3.5	20.0
2-Hexanone	Ave	0.3933	0.2951	0.0500	0.0300	0.0400	-25.0*	20.0
Chlorodibromomethane	Lin1		0.3419		0.0180	0.0200	-10.2	20.0
Ethylene Dibromide	Ave	0.3917	0.3684		0.0188	0.0200	-6.0	20.0
Chlorobenzene	Ave	1.276	1.213	0.3000	0.0190	0.0200	-4.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3921	0.3511		0.0179	0.0200	-10.5	20.0
Ethylbenzene	Ave	0.6741	0.6206		0.0184	0.0200	-7.9	20.0
m-Xylene & p-Xylene	Ave	0.8549	0.7767		0.0182	0.0200	-9.1	20.0
o-Xylene	Ave	0.8537	0.7837		0.0184	0.0200	-8.2	20.0
Styrene	Ave	1.478	1.384	0.3000	0.0187	0.0200	-6.4	20.0
Bromoform	Lin1		0.2212	0.1000	0.0188	0.0200	-5.8	20.0
Isopropylbenzene	Ave	2.083	1.756	0.1000	0.0169	0.0200	-15.7	20.0
1,1,2,2-Tetrachloroethane	Ave	1.017	0.9859	0.3000	0.0194	0.0200	-3.0	20.0
Bromobenzene	Ave	0.9145	0.9594		0.0210	0.0200	4.9	20.0
1,2,3-Trichloropropane	Ave	0.3075	0.3221		0.0210	0.0200	4.8	20.0
trans-1,4-Dichloro-2-butene	Lin1		0.2587		0.0232	0.0200	15.9	20.0
N-Propylbenzene	Ave	0.9615	0.8924		0.0186	0.0200	-7.2	20.0
2-Chlorotoluene	Ave	0.8146	0.8295		0.0204	0.0200	1.8	20.0
1,3,5-Trimethylbenzene	Ave	2.885	2.771		0.0192	0.0200	-4.0	20.0
4-Chlorotoluene	Ave	0.8787	0.8651		0.0197	0.0200	-1.5	20.0
tert-Butylbenzene	Ave	2.553	2.259		0.0177	0.0200	-11.5	20.0
1,2,4-Trimethylbenzene	Ave	3.092	2.939		0.0190	0.0200	-4.9	20.0
sec-Butylbenzene	Ave	3.652	3.149		0.0172	0.0200	-13.8	20.0
1,3-Dichlorobenzene	Ave	1.836	1.723	0.6000	0.0188	0.0200	-6.2	20.0
4-Isopropyltoluene	Ave	3.245	2.793		0.0172	0.0200	-13.9	20.0
1,4-Dichlorobenzene	Ave	1.918	1.755	0.5000	0.0183	0.0200	-8.5	20.0
n-Butylbenzene	Ave	2.788	2.256		0.0162	0.0200	-19.1	20.0
1,2-Dichlorobenzene	Ave	1.825	1.613	0.4000	0.0177	0.0200	-11.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: CCVIS 240-271642/3 Calibration Date: 03/23/2017 08:56

Instrument ID: A3UX12 Calib Start Date: 01/04/2017 19:48

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/04/2017 21:51

Lab File ID: U1256075.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2200	0.1833	0.0500	0.0167	0.0200	-16.7	50.0
1,2,4-Trichlorobenzene	Ave	1.313	0.9475	0.2000	0.0144	0.0200	-27.8	50.0
Hexachlorobutadiene	Ave	0.5020	0.3780		0.0151	0.0200	-24.7*	20.0
Naphthalene	Ave	3.820	2.605		0.0136	0.0200	-31.8	50.0
1,2,3-Trichlorobenzene	Ave	1.217	0.8254		0.0136	0.0200	-32.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.2628	0.2873		0.0181	0.0165	9.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3344	0.3331		0.0165	0.0165	-0.4	20.0
Toluene-d8 (Surr)	Ave	1.597	1.507		0.0156	0.0165	-5.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6327	0.5444		0.0142	0.0165	-14.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab File ID: BFB5159.D BFB Injection Date: 02/08/2017

Instrument ID: A3UX16 BFB Injection Time: 10:47

Analysis Batch No.: 265930

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.1	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.6	(0.8) 1
174	50.0 - 120.00 % of mass 95	72.1	
175	5.0 - 9.0 % of mass 174	5.1	(7.1) 1
176	95.0 - 101.0 % of mass 174	70.6	(97.9) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-265930/8	UXM0695.D	02/08/2017	11:17
	STD8260 240-265930/9	UXM0696.D	02/08/2017	11:40
	STD8260 240-265930/10	UXM0697.D	02/08/2017	12:04
	ICIS 240-265930/11	UXM0698.D	02/08/2017	12:27
	STD8260 240-265930/12	UXM0699.D	02/08/2017	12:57
	STD8260 240-265930/13	UXM0700.D	02/08/2017	13:20
	ICV 240-265930/23	UXM0710.D	02/08/2017	17:12

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-265930/8	UXM0695.D
Level 2	STD8260 240-265930/9	UXM0696.D
Level 3	STD8260 240-265930/10	UXM0697.D
Level 4	ICIS 240-265930/11	UXM0698.D
Level 5	STD8260 240-265930/12	UXM0699.D
Level 6	STD8260 240-265930/13	UXM0700.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1648 0.2371	0.1692	0.2445	0.2601	0.2654	Lin1	-0.052	0.2514			0.1000				0.9970		0.9900
Chloromethane	0.4176 0.3938	0.3642	0.3776	0.3900	0.4257	Ave		0.3948			0.1000	5.9		20.0			
Vinyl chloride	0.3830 0.3750	0.3080	0.3686	0.3646	0.4142	Ave		0.3689			0.1000	9.4		20.0			
Butadiene	0.3484 0.3252	0.2381	0.3291	0.3238	0.3641	Ave		0.3214				13.6		20.0			
Bromomethane	0.1794 0.1963	0.1680	0.1933	0.1981	0.2210	Ave		0.1927			0.0500	9.4		20.0			
Chloroethane	0.2453 0.2306	0.1810	0.2149	0.2223	0.2522	Ave		0.2244			0.0500	11.3		20.0			
Dichlorofluoromethane	0.5077 0.5236	0.4527	0.5011	0.5103	0.5663	Ave		0.5103				7.2		20.0			
Trichlorofluoromethane	0.2007 0.3322	0.2156	0.3366	0.3398	0.3782	Lin1	-0.094	0.3506			0.1000				0.9960		0.9900
Ethyl ether	0.2121 0.2339	0.2161	0.2095	0.2328	0.2556	Ave		0.2267				7.8		20.0			
Acrolein	0.0441 0.0375	0.0415	0.0358	0.0369	0.0416	Ave		0.0396				8.3		20.0			
1,1-Dichloroethene	0.2886 0.2619	0.2156	0.2493	0.2670	0.2859	Ave		0.2614			0.1000	10.3		20.0			
Acetone	+++++ 0.0698	0.0989	0.0759	0.0856	0.0890	Ave		0.0838			0.0100	13.6		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1206 0.1526	0.1262	0.1451	0.1655	0.1714	Ave		0.1469			0.0500	14.0		20.0			
Iodomethane	0.4284 0.4153	0.3437	0.3824	0.4244	0.4536	Ave		0.4080				9.6		20.0			
Carbon disulfide	+++++ 0.9426	0.8293	0.8744	0.9656	1.0423	Ave		0.9308			0.1000	8.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2014 0.2040	0.1555	0.1808	0.2002	0.2159	Ave		0.1930				11.2		20.0			
Methyl acetate	0.1928 0.1423	0.1613	0.1385	0.1524	0.1649	Ave		0.1587			0.1000	12.4		20.0			
Methylene Chloride	+++++ 0.3066	0.9852	0.3287	0.3276	0.3246	Lin1	0.6613	0.2969			0.1000				0.9980		0.9900
2-Methyl-2-propanol	0.0194 0.0160	0.0174	0.0155	0.0179	0.0188	Ave		0.0175				8.8		20.0			
Acrylonitrile	0.0787 0.0773	0.0707	0.0707	0.0792	0.0881	Ave		0.0774				8.3		20.0			
trans-1,2-Dichloroethene	0.3908 0.3021	0.2608	0.2594	0.3017	0.3136	Ave		0.3047			0.1000	15.7		20.0			
Methyl tert-butyl ether	0.6950 0.7470	0.6660	0.6579	0.7653	0.8048	Ave		0.7227			0.1000	8.1		20.0			
Hexane	0.3470 0.2380	0.2502	0.2515	0.2654	0.2531	Ave		0.2675				14.9		20.0			
1,1-Dichloroethane	0.5289 0.5356	0.4351	0.4707	0.5253	0.5533	Ave		0.5082			0.2000	8.9		20.0			
Vinyl acetate	0.4775 0.4322	0.4393	0.4025	0.4356	0.4609	Ave		0.4413				5.8		20.0			
cis-1,2-Dichloroethene	0.3839 0.3315	0.2759	0.2961	0.3258	0.3367	Ave		0.3250			0.1000	11.4		20.0			
2,2-Dichloropropane	0.2956 0.3630	0.3145	0.3454	0.3747	0.3844	Ave		0.3463				10.1		20.0			
2-Butanone (MEK)	0.1259 0.0860	0.1104	0.0861	0.0928	0.0999	Ave		0.1002			0.0100	15.6		20.0			
Chlorobromomethane	0.1378 0.1414	0.1098	0.1231	0.1370	0.1441	Ave		0.1322				9.9		20.0			
Tetrahydrofuran	0.0884 0.0544	0.0672	0.0515	0.0554	0.0618	Lin1	0.0260	0.0562							0.9950		0.9900
Chloroform	0.4736 0.4816	0.4116	0.4242	0.4731	0.4849	Ave		0.4582			0.2000	6.9		20.0			
1,1,1-Trichloroethane	0.3228 0.3986	0.3088	0.3648	0.3873	0.4126	Ave		0.3658			0.1000	11.5		20.0			
Cyclohexane	0.3822 0.4251	0.3558	0.3911	0.4304	0.4532	Ave		0.4063			0.1000	8.9		20.0			
1,1-Dichloropropene	0.3968 0.3935	0.3258	0.3630	0.3843	0.4157	Ave		0.3799				8.3		20.0			
Carbon tetrachloride	0.2740 0.3322	0.2705	0.2967	0.3240	0.3502	Ave		0.3079			0.1000	10.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0068 0.0054	0.0053	0.0051	0.0060	0.0064	Ave		0.0058				11.4		20.0			
Benzene	1.1322 1.1868	0.9742	1.0448	1.1522	1.2464	Ave		1.1228			0.5000	8.8		20.0			
1,2-Dichloroethane	0.3413 0.3337	0.3076	0.2973	0.3297	0.3608	Ave		0.3284			0.1000	7.0		20.0			
n-Heptane	+++++ 0.1058	0.7533	0.1688	0.1330	0.1264	Lin1	0.6568	0.1009							0.9950		0.9900
Trichloroethene	0.3387 0.2898	0.2398	0.2535	0.2790	0.3046	Ave		0.2843			0.1500	12.5		20.0			
Methylcyclohexane	0.3152 0.3343	0.2967	0.3159	0.3386	0.3619	Ave		0.3271			0.1000	7.0		20.0			
1,2-Dichloropropane	0.2673 0.2805	0.2220	0.2480	0.2729	0.2960	Ave		0.2644			0.1000	9.9		20.0			
Dibromomethane	0.1495 0.1371	0.1148	0.1226	0.1335	0.1522	Ave		0.1350				10.9		20.0			
1,4-Dioxane	+++++ 0.0017	0.0015	0.0015	0.0018	0.0020	Ave		0.0017				11.7		20.0			
Dichlorobromomethane	0.3071 0.3373	0.2812	0.2963	0.3113	0.3539	Ave		0.3145			0.1500	8.5		20.0			
2-Chloroethyl vinyl ether	0.1020 0.1278	0.1027	0.1175	0.1262	0.1445	Ave		0.1201				13.6		20.0			
cis-1,3-Dichloropropene	0.4904 0.4546	0.3504	0.4007	0.4229	0.4801	Ave		0.4332			0.1500	12.2		20.0			
4-Methyl-2-pentanone (MIBK)	0.1791 0.1747	0.1777	0.1749	0.1879	0.2045	Ave		0.1831			0.0500	6.3		20.0			
Toluene	1.5807 1.6126	1.3100	1.5016	1.4843	1.6616	Ave		1.5251			0.4000	8.2		20.0			
trans-1,3-Dichloropropene	0.5455 0.4937	0.4272	0.4704	0.4666	0.5340	Ave		0.4896			0.1000	9.1		20.0			
Ethyl methacrylate	0.3523 0.3793	0.3777	0.4012	0.3922	0.4262	Ave		0.3881				6.4		20.0			
1,1,2-Trichloroethane	0.2419 0.2574	0.2368	0.2476	0.2361	0.2810	Ave		0.2501			0.1000	6.8		20.0			
Tetrachloroethene	0.2644 0.2657	0.2265	0.2433	0.2494	0.2762	Ave		0.2543			0.1500	7.1		20.0			
1,3-Dichloropropane	0.4258 0.4844	0.4640	0.4728	0.4626	0.5278	Ave		0.4729				7.0		20.0			
2-Hexanone	0.1922 0.1672	0.1848	0.1854	0.1888	0.2018	Ave		0.1867			0.0500	6.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2937 0.3013	0.2454	0.2787	0.2893	0.3224	Ave		0.2885				8.9		20.0			
Ethylene Dibromide	0.2513 0.2487	0.1951	0.2372	0.2443	0.2712	Ave		0.2413				10.5		20.0			
Chlorobenzene	1.1527 1.0056	0.8753	0.9036	0.9651	1.0385	Ave		0.9902			0.3000	10.1		20.0			
1,1,1,2-Tetrachloroethane	0.3207 0.3510	0.3023	0.3018	0.3369	0.3695	Ave		0.3304				8.2		20.0			
Ethylbenzene	0.5573 0.5456	0.4748	0.4781	0.5290	0.5713	Ave		0.5260				7.8		20.0			
m-Xylene & p-Xylene	0.7374 0.6843	0.5509	0.6226	0.6568	0.7048	Ave		0.6595				10.0		20.0			
o-Xylene	0.6736 0.6953	0.5721	0.6192	0.6710	0.7162	Ave		0.6579				8.1		20.0			
Styrene	1.0530 1.1585	0.9345	1.0311	1.1252	1.2061	Ave		1.0847			0.3000	9.1		20.0			
Bromoform	0.2210 0.1745	0.1790	0.1617	0.1757	0.1927	Ave		0.1841			0.1000	11.2		20.0			
Isopropylbenzene	1.7123 1.7084	1.3896	1.5478	1.6208	1.7853	Ave		1.6274			0.1000	8.8		20.0			
1,1,2,2-Tetrachloroethane	0.6184 0.5809	0.5680	0.5227	0.5931	0.6385	Ave		0.5869			0.3000	6.9		20.0			
Bromobenzene	0.8089 0.7120	0.6336	0.6141	0.6919	0.7270	Ave		0.6979				10.0		20.0			
1,2,3-Trichloropropane	0.1680 0.1709	0.1389	0.1627	0.1769	0.1874	Ave		0.1675				9.8		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1516	0.1408	0.1331	0.1501	0.1823	Ave		0.1516				12.4		20.0			
N-Propylbenzene	0.8774 0.7796	0.6552	0.6660	0.7565	0.8149	Ave		0.7583				11.3		20.0			
2-Chlorotoluene	0.7018 0.6984	0.5874	0.5990	0.6711	0.7182	Ave		0.6627				8.5		20.0			
1,3,5-Trimethylbenzene	2.6463 2.4475	2.0808	2.1384	2.3631	2.5782	Ave		2.3757				9.7		20.0			
4-Chlorotoluene	0.7921 0.7218	0.6402	0.6361	0.6965	0.7518	Ave		0.7064				8.7		20.0			
tert-Butylbenzene	2.0182 2.0625	1.7307	1.7602	1.9578	2.1584	Ave		1.9480				8.7		20.0			
1,2,4-Trimethylbenzene	3.3200 2.6339	2.1678	2.2129	2.5085	2.7112	Ave		2.5924				16.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.8244 2.7342	2.5123	2.3498	2.6066	2.8808	Ave		2.6514				7.6		20.0			
1,3-Dichlorobenzene	1.7262 1.3784	1.1578	1.2106	1.3360	1.4255	Ave		1.3724			0.6000	14.6		20.0			
4-Isopropyltoluene	2.4349 2.3998	1.9344	2.0990	2.2773	2.5078	Ave		2.2755				9.7		20.0			
1,4-Dichlorobenzene	+++++ 1.4020	1.1493	1.2473	1.3224	1.4564	Ave		1.3155			0.5000	9.3		20.0			
n-Butylbenzene	2.2888 2.0327	1.6485	1.6774	1.8467	2.0741	Ave		1.9280				12.9		20.0			
1,2-Dichlorobenzene	1.4426 1.3362	1.0751	1.1427	1.2497	1.3690	Ave		1.2692			0.4000	11.1		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1123	0.0947	0.0943	0.1065	0.1225	Ave		0.1060			0.0500	11.3		20.0			
1,2,4-Trichlorobenzene	+++++ 0.7379	0.6682	0.6057	0.6763	0.7662	Ave		0.6909			0.2000	9.1		20.0			
Hexachlorobutadiene	+++++ 0.2614	0.2042	0.2086	0.2363	0.2531	Ave		0.2327				11.1		20.0			
Naphthalene	+++++ 1.7405	1.5096	1.4202	1.6262	1.8750	Ave		1.6343				11.1		20.0			
1,2,3-Trichlorobenzene	+++++ 0.5985	0.4882	0.4828	0.5650	0.6417	Ave		0.5553				12.5		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2459	0.2091	0.2210	0.2407	0.2529	Ave		0.2339				7.8		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2708	0.2423	0.2463	0.2638	0.2859	Ave		0.2618				6.8		20.0			
Toluene-d8 (Surr)	+++++ 1.3757	1.1090	1.3199	1.2491	1.4370	Ave		1.2982				9.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4778	0.4815	0.4812	0.4899	0.5226	Ave		0.4906				3.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-265930/8	UXM0695.D
Level 2	STD8260 240-265930/9	UXM0696.D
Level 3	STD8260 240-265930/10	UXM0697.D
Level 4	ICIS 240-265930/11	UXM0698.D
Level 5	STD8260 240-265930/12	UXM0699.D
Level 6	STD8260 240-265930/13	UXM0700.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Lin1	4204 687315	8156	118923	246914	488281	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	10655 1141308	17553	183648	370272	783057	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	9773 1086862	14847	179315	346122	762063	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	8889 942390	11476	160096	307366	669736	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4576 568905	8099	94049	188116	406488	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	6258 668405	8723	104538	211007	463971	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	12953 1517482	21817	243740	484444	1041715	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Lin1	5121 962761	10393	163708	322566	695715	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5412 677982	10415	101899	221003	470198	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	5627 542939	9999	87005	175358	382404	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	7363 759112	10391	121286	253455	525922	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Ave	+++++ 404391	9533	73882	162494	327621	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	3077 442374	6084	70592	157144	315362	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	10931 1203573	16564	186029	402955	834498	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	+++++ 2731803	39971	425317	916730	1917497	+++++ 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	5139 591331	7494	87936	190019	397229	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	24597 2061489	38870	336748	723628	1516996	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 888743	47486	159902	310981	597131	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	4957 464149	8388	75351	169486	346242	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	20079 2239555	34059	344088	751761	1620485	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	9971 875545	12569	126157	286463	576830	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	17733 2164886	32098	320016	726518	1480605	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	8854 689924	12057	122355	251970	465568	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	13495 1552450	20970	228943	498734	1017797	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	12183 1252663	21172	195791	413522	847912	0.500 60.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	9795 960763	13300	144037	309311	619341	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7542 1052041	15159	168003	355749	707208	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	6423 498395	10639	83804	176209	367676	1.00 120	2.00	20.0	40.0	80.0
Chlorobromomethane	FB	Ave	3517 409769	5293	59896	130073	265071	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Lin1	4511 315194	6473	50130	105191	227296	1.00 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	12083 1395801	19840	206338	449185	892115	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	8235 1155238	14884	177442	367680	759125	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	9751 1231992	17150	190262	408616	833709	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	10125 1140599	15704	176562	364875	764820	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6990 962886	13038	144306	307573	644195	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	4307 388001	6398	62175	143248	292821	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	28888 3439605	46956	508201	1093860	2292910	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	8709 967083	14826	144618	312981	663679	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 306620	36308	82093	126219	232604	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	8642 840016	11557	123312	264913	560388	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	8041 968963	14302	153649	321470	665835	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6819 812861	10700	120644	259090	544464	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3815 397392	5533	59651	126781	280060	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 98191	1435	14905	34027	72789	+++++ 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7835 977670	13551	144123	295566	651051	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5205 740890	9895	114292	239695	531791	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	12512 1317443	16887	194915	401464	883203	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	9140 1012459	17129	170159	356824	752556	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	30234 3485260	47354	512502	1066239	2310110	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	10435 1067066	15442	160532	335183	742383	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6738 819681	13652	136920	281751	592501	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4626 556223	8561	84512	169574	390719	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	5057 574157	8189	83044	179155	384015	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8144 1046843	16771	161369	332283	733813	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	7353 722564	13359	126544	271287	561183	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5618 651305	8872	95120	207834	448227	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	4806 537424	7052	80945	175522	376992	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	22049 2173407	31640	308409	693317	1443779	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6135 758696	10928	102988	242043	513702	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	10660 1179270	17161	163186	380018	794283	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	14105 1478968	19912	212474	471798	979861	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	12885 1502819	20681	211338	482027	995741	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	20142 2503968	33780	351900	808289	1676813	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	4228 377209	6471	55195	126246	267859	0.500 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	32752 3692438	50228	528253	1164301	2481988	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6490 673044	11155	103713	238667	503701	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8490 824959	12443	121849	278414	573587	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1763 198043	2727	32292	71187	147822	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 175640	2765	26411	60379	143806	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	9209 903273	12867	132164	304408	642926	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7366 809276	11535	118870	270017	566581	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	27774 2835836	40863	424324	950870	2034074	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	8313 836311	12573	126219	280269	593154	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	21182 2389750	33988	349287	787786	1702872	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	34844 3051781	42571	439107	1009369	2138943	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	29643 3168001	49337	466281	1048831	2272821	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	18117 1597067	22737	240229	537584	1124662	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	25555 2780624	37987	416519	916327	1978523	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	+++++ 1624480	22570	247508	532094	1149007	+++++ 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 265930

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2017 11:17 Calibration End Date: 02/08/2017 13:20 Calibration ID: 38230

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	24022 2355198	32373	332845	743073	1636363	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	15141 1548170	21113	226747	502863	1080081	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 130083	1860	18704	42847	96644	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	+++++ 855020	13122	120189	272137	604510	+++++ 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	+++++ 302886	4010	41388	95079	199707	+++++ 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	+++++ 2016647	29646	281807	654344	1479232	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	+++++ 693497	9588	95806	227363	506268	+++++ 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 712768	10078	107520	228510	465153	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 784715	11678	119821	250450	525907	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2973365	40088	450490	897310	1997819	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1032676	17406	164241	351921	726530	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: ICV 240-265930/23 Calibration Date: 02/08/2017 17:12

Instrument ID: A3UX16 Calib Start Date: 02/08/2017 11:17

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 02/08/2017 13:20

Lab File ID: UXM0710.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2339	0.2337		0.0200	0.0200	-0.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2618	0.2582		0.0197	0.0200	-1.4	20.0
Toluene-d8 (Surr)	Ave	1.298	1.341		0.0207	0.0200	3.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4906	0.5229		0.0213	0.0200	6.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: ICV 240-265930/23 Calibration Date: 02/08/2017 17:12

Instrument ID: A3UX16 Calib Start Date: 02/08/2017 14:06

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 02/08/2017 16:03

Lab File ID: UXM0710.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0264		0.191	0.200	-4.7	20.0
Isopropyl ether	Ave	0.2568	0.2803		0.0218	0.0200	9.2	20.0
2-Chloro-1,3-butadiene	Ave	0.4633	0.4649		0.0201	0.0200	0.4	20.0
Tert-butyl ethyl ether	Ave	0.8959	0.9211		0.0206	0.0200	2.8	20.0
Propionitrile	Ave	0.0280	0.0280		0.200	0.200	0.2	20.0
Ethyl acetate	Ave	0.1764	0.1679		0.0381	0.0400	-4.8	50.0
Methacrylonitrile	Ave	0.1303	0.1295		0.199	0.200	-0.6	20.0
Tert-amyl methyl ether	Ave	0.8004	0.8177		0.0204	0.0200	2.2	20.0
n-Butanol	Ave	0.0049	0.0049		0.504	0.500	0.8	20.0
Ethyl acrylate	Ave	0.2472	0.2403		0.0194	0.0200	-2.8	20.0
Methyl methacrylate	Ave	0.1843	0.1797		0.0390	0.0400	-2.5	20.0
2-Nitropropane	Ave	0.0517	0.0475		0.0368	0.0400	-8.1	20.0
n-Butyl acetate	Ave	0.3561	0.3339		0.0188	0.0200	-6.2	30.0
1-Chlorohexane	Ave	0.4315	0.4137		0.0192	0.0200	-4.1	20.0
Cyclohexanone	Ave	0.0134	0.0162		0.241	0.200	20.5*	20.0
Pentachloroethane	Lin1		0.2184		0.0364	0.0400	-9.0	20.0
1,2,3-Trimethylbenzene	Ave	2.645	2.799		0.0212	0.0200	5.8	20.0
Benzyl chloride	Lin1		0.2527		0.0180	0.0200	-9.9	20.0
1,3,5-Trichlorobenzene	Ave	0.7612	0.7969		0.0209	0.0200	4.7	20.0
2-Methylnaphthalene	Ave	0.6525	0.6624		0.0406	0.0400	1.5	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab File ID: BFB5177.D BFB Injection Date: 03/08/2017

Instrument ID: A3UX16 BFB Injection Time: 09:32

Analysis Batch No.: 269649

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.6	
75	30.0 - 60.0 % of mass 95	45.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.6	(0.8) 1
174	50.0 - 120.00 % of mass 95	71.5	
175	5.0 - 9.0 % of mass 174	5.1	(7.2) 1
176	95.0 - 101.0 % of mass 174	68.9	(96.4) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-269649/8	UXM1069.D	03/08/2017	10:00
	STD8260 240-269649/9	UXM1070.D	03/08/2017	10:23
	STD8260 240-269649/10	UXM1071.D	03/08/2017	10:46
	ICIS 240-269649/11	UXM1072.D	03/08/2017	11:10
	STD8260 240-269649/12	UXM1073.D	03/08/2017	11:33
	STD8260 240-269649/13	UXM1074.D	03/08/2017	11:56
	ICV 240-269649/22	UXM1076.D	03/08/2017	12:42

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-269649/8	UXM1069.D
Level 2	STD8260 240-269649/9	UXM1070.D
Level 3	STD8260 240-269649/10	UXM1071.D
Level 4	ICIS 240-269649/11	UXM1072.D
Level 5	STD8260 240-269649/12	UXM1073.D
Level 6	STD8260 240-269649/13	UXM1074.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2706	0.1484	0.2845	0.2994	0.2676	Lin1	-0.100	0.2780			0.1000				0.9970		0.9900
Chloromethane	0.4639 0.4076	0.3348	0.3784	0.3726	0.4101	Ave		0.3946			0.1000	11.1		20.0			
Vinyl chloride	0.4467 0.3847	0.3116	0.3639	0.3718	0.3874	Ave		0.3777			0.1000	11.5		20.0			
Butadiene	0.3907 0.3377	0.3033	0.3341	0.3294	0.3412	Ave		0.3394				8.4		20.0			
Bromomethane	0.1978 0.1965	0.1948	0.1890	0.1848	0.2057	Ave		0.1948			0.0500	3.7		20.0			
Chloroethane	0.2214 0.2294	0.1914	0.2118	0.2132	0.2373	Ave		0.2174			0.0500	7.4		20.0			
Dichlorofluoromethane	0.5301 0.5306	0.4525	0.4869	0.4883	0.5391	Ave		0.5046				6.8		20.0			
Trichlorofluoromethane	0.2359 0.3519	0.2405	0.3440	0.3510	0.3474	Ave		0.3118			0.1000	18.3		20.0			
Ethyl ether	0.2218 0.2301	0.2177	0.2158	0.2119	0.2374	Ave		0.2225				4.3		20.0			
Acrolein	0.0332 0.0274	0.0249	0.0243	0.0268	0.0287	Ave		0.0275				11.6		20.0			
1,1-Dichloroethene	0.3220 0.2778	0.2330	0.2656	0.2566	0.2759	Ave		0.2718			0.1000	10.9		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1588 0.1704	0.1426	0.1744	0.1781	0.1704	Ave		0.1658			0.0500	7.9		20.0			
Acetone	+++++ 0.0767	0.1535	0.0942	0.0922	0.0756	Lin1	0.1776	0.0773			0.0100				0.9940		0.9900
Iodomethane	0.4565 0.4372	0.3805	0.4045	0.3976	0.4375	Ave		0.4190				6.9		20.0			
Carbon disulfide	+++++ 0.9775	0.8688	0.9228	0.8849	0.9758	Ave		0.9260			0.1000	5.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	+++++ 0.2094	0.1742	0.1937	0.1886	0.2094	Ave		0.1951				7.7		20.0			
Methyl acetate	0.1613 0.1385	0.1513	0.1392	0.1379	0.1434	Ave		0.1453			0.1000	6.4		20.0			
Methylene Chloride	+++++ 0.3164	0.4027	0.3016	0.2845	0.3166	Ave		0.3244			0.1000	14.1		20.0			
2-Methyl-2-propanol	+++++ 0.0159	0.0187	0.0160	0.0168	0.0171	Ave		0.0169				6.6		20.0			
Acrylonitrile	0.0932 0.0757	0.0779	0.0738	0.0738	0.0786	Ave		0.0788				9.3		20.0			
trans-1,2-Dichloroethene	0.4270 0.3128	0.2972	0.2920	0.2809	0.3144	Ave		0.3207			0.1000	16.7		20.0			
Methyl tert-butyl ether	0.7696 0.7305	0.6698	0.7022	0.6837	0.7494	Ave		0.7175			0.1000	5.4		20.0			
Hexane	+++++ 0.2745	0.2477	0.3036	0.3266	0.2788	Ave		0.2862				10.5		20.0			
1,1-Dichloroethane	0.5266 0.5523	0.4600	0.5130	0.4897	0.5514	Ave		0.5155			0.2000	7.0		20.0			
Vinyl acetate	0.4562 0.4041	0.3949	0.3874	0.3810	0.4244	Ave		0.4080				6.9		20.0			
cis-1,2-Dichloroethene	0.3747 0.3460	0.2984	0.3201	0.3063	0.3457	Ave		0.3319			0.1000	8.7		20.0			
2,2-Dichloropropane	0.3194 0.3672	0.3389	0.3674	0.3461	0.3749	Ave		0.3523				6.0		20.0			
2-Butanone (MEK)	0.1250 0.0852	0.0999	0.0942	0.0941	0.0865	Ave		0.0975			0.0100	14.9		20.0			
Chlorobromomethane	0.1404 0.1424	0.1273	0.1333	0.1269	0.1419	Ave		0.1354				5.3		20.0			
Tetrahydrofuran	+++++ 0.0513	0.0486	0.0510	0.0508	0.0528	Ave		0.0509				3.0		20.0			
Chloroform	0.4631 0.4927	0.4431	0.4637	0.4381	0.4912	Ave		0.4653			0.2000	5.0		20.0			
1,1,1-Trichloroethane	0.3833 0.4104	0.3571	0.3818	0.3734	0.4060	Ave		0.3853			0.1000	5.2		20.0			
Cyclohexane	0.4458 0.4611	0.3890	0.4616	0.4808	0.4587	Ave		0.4495			0.1000	7.0		20.0			
1,1-Dichloropropene	0.4761 0.4069	0.3535	0.3871	0.3796	0.4036	Ave		0.4011				10.3		20.0			
Carbon tetrachloride	0.2795 0.3356	0.2843	0.3187	0.3137	0.3364	Ave		0.3114			0.1000	7.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0050 0.0052	0.0058	0.0051	0.0056	0.0055	Ave		0.0054				6.0		20.0			
Benzene	1.2096 1.2191	1.0404	1.1260	1.0851	1.2152	Ave		1.1492			0.5000	6.7		20.0			
1,2-Dichloroethane	0.3307 0.3277	0.3036	0.3133	0.3000	0.3330	Ave		0.3181			0.1000	4.5		20.0			
n-Heptane	+++++ 0.1201	0.7372	0.1861	0.1683	0.1255	Lin1	0.6424	0.1144							0.9910		0.9900
Trichloroethene	0.3361 0.2948	0.2679	0.2804	0.2686	0.2947	Ave		0.2904			0.1500	8.7		20.0			
Methylcyclohexane	0.3399 0.3765	0.3044	0.3820	0.4079	0.3769	Ave		0.3646			0.1000	10.0		20.0			
1,2-Dichloropropane	0.2239 0.2830	0.2410	0.2632	0.2526	0.2879	Ave		0.2586			0.1000	9.5		20.0			
Dibromomethane	0.1592 0.1371	0.1302	0.1268	0.1269	0.1394	Ave		0.1366				9.0		20.0			
1,4-Dioxane	+++++ 0.0019	0.0019	0.0019	0.0019	0.0020	Ave		0.0019				2.0		20.0			
Dichlorobromomethane	0.2862 0.3335	0.2917	0.3040	0.2990	0.3355	Ave		0.3083			0.1500	6.9		20.0			
2-Chloroethyl vinyl ether	0.1188 0.1274	0.1132	0.1187	0.1215	0.1305	Ave		0.1217				5.2		20.0			
cis-1,3-Dichloropropene	0.4494 0.4514	0.3628	0.4071	0.3880	0.4449	Ave		0.4173			0.1500	8.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2019 0.1615	0.1745	0.1749	0.1787	0.1735	Ave		0.1775			0.0500	7.5		20.0			
Toluene	1.5232 1.6752	1.4708	1.5684	1.4985	1.6799	Ave		1.5693			0.4000	5.7		20.0			
trans-1,3-Dichloropropene	0.5258 0.4877	0.4206	0.4624	0.4460	0.4985	Ave		0.4735			0.1000	8.0		20.0			
Ethyl methacrylate	0.3515 0.3673	0.3697	0.3837	0.3778	0.3934	Ave		0.3739				3.9		20.0			
1,1,2-Trichloroethane	0.2584 0.2579	0.2296	0.2463	0.2455	0.2705	Ave		0.2514			0.1000	5.6		20.0			
Tetrachloroethene	0.3025 0.2781	0.2448	0.2677	0.2551	0.2809	Ave		0.2715			0.1500	7.5		20.0			
1,3-Dichloropropane	0.4828 0.4949	0.4654	0.4779	0.4710	0.5075	Ave		0.4833				3.2		20.0			
2-Hexanone	0.1949 0.1656	0.1858	0.1979	0.2053	0.1732	Ave		0.1871			0.0500	8.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2613 0.3051	0.2571	0.2781	0.2748	0.3059	Ave		0.2804				7.5		20.0			
Ethylene Dibromide	0.2892 0.2509	0.2437	0.2442	0.2393	0.2581	Ave		0.2542				7.2		20.0			
Chlorobenzene	1.1521 1.0580	0.9115	0.9807	0.9446	1.0658	Ave		1.0188			0.3000	8.8		20.0			
1,1,1,2-Tetrachloroethane	0.3345 0.3660	0.2816	0.3405	0.3270	0.3694	Ave		0.3365				9.5		20.0			
Ethylbenzene	0.5366 0.5715	0.5048	0.5401	0.5132	0.5675	Ave		0.5389				5.1		20.0			
m-Xylene & p-Xylene	0.7466 0.7181	0.6034	0.6610	0.6457	0.7141	Ave		0.6815				7.9		20.0			
o-Xylene	0.7239 0.7248	0.6088	0.6691	0.6523	0.7431	Ave		0.6870				7.6		20.0			
Styrene	1.1950 1.2246	0.9959	1.1484	1.1008	1.2410	Ave		1.1510			0.3000	8.0		20.0			
Bromoform	0.1330 0.1704	0.1561	0.1604	0.1591	0.1722	Ave		0.1585			0.1000	8.9		20.0			
Isopropylbenzene	1.6496 1.8092	1.3914	1.6602	1.5709	1.7250	Ave		1.6344			0.1000	8.8		20.0			
1,1,2,2-Tetrachloroethane	0.6144 0.5807	0.5229	0.5923	0.5580	0.5895	Ave		0.5763			0.3000	5.5		20.0			
Bromobenzene	0.9353 0.7446	0.6498	0.7260	0.6535	0.7444	Ave		0.7422				14.0		20.0			
1,2,3-Trichloropropane	0.1466 0.1695	0.1557	0.1765	0.1642	0.1753	Ave		0.1646				7.1		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1457	0.0887	0.1460	0.1342	0.1482	Ave		0.1326				18.9		20.0			
N-Propylbenzene	0.7567 0.8326	0.6589	0.8013	0.7341	0.8280	Ave		0.7686				8.6		20.0			
2-Chlorotoluene	0.6478 0.7349	0.6397	0.6999	0.6511	0.7494	Ave		0.6871				7.0		20.0			
1,3,5-Trimethylbenzene	2.3887 2.6566	2.0612	2.4367	2.2384	2.6709	Ave		2.4087				9.8		20.0			
4-Chlorotoluene	0.8114 0.7722	0.6668	0.7350	0.6657	0.7828	Ave		0.7390				8.3		20.0			
tert-Butylbenzene	2.3441 2.2534	1.8461	2.0946	1.9100	2.2704	Ave		2.1198				9.7		20.0			
1,2,4-Trimethylbenzene	2.6904 2.7823	2.2464	2.5455	2.3513	2.7224	Ave		2.5564				8.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.7269 2.9607	2.3671	2.7307	2.5478	2.8655	Ave		2.6998				8.0		20.0			
1,3-Dichlorobenzene	1.6310 1.4559	1.1654	1.3556	1.3009	1.4230	Ave		1.3886			0.6000	11.3		20.0			
4-Isopropyltoluene	2.4521 2.5600	2.0718	2.3444	2.2751	2.4743	Ave		2.3630				7.4		20.0			
1,4-Dichlorobenzene	1.8122 1.4702	1.2671	1.4024	1.3371	1.4583	Ave		1.4579			0.5000	13.0		20.0			
n-Butylbenzene	2.0888 2.1352	1.6578	1.9397	1.8723	2.0358	Ave		1.9549				8.9		20.0			
1,2-Dichlorobenzene	1.4618 1.3619	1.1803	1.2901	1.2593	1.3490	Ave		1.3171			0.4000	7.3		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0965	0.0592	0.0928	0.0941	0.0988	Ave		0.0883			0.0500	18.6		20.0			
1,2,4-Trichlorobenzene	+++++ 0.6942	0.6194	0.6340	0.6280	0.7536	Ave		0.6658			0.2000	8.6		20.0			
Hexachlorobutadiene	0.3954 0.2792	0.2892	0.2493	0.2490	0.2917	Ave		0.2923				18.4		20.0			
Naphthalene	+++++ 1.4698	1.3198	1.3144	1.4025	1.5801	Ave		1.4173				7.9		20.0			
1,2,3-Trichlorobenzene	+++++ 0.5165	0.4609	0.4720	0.4832	0.5546	Ave		0.4974				7.7		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2463	0.2173	0.2240	0.2227	0.2492	Ave		0.2319				6.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2593	0.2248	0.2494	0.2416	0.2693	Ave		0.2489				6.8		20.0			
Toluene-d8 (Surr)	+++++ 1.4136	1.2176	1.3217	1.2733	1.4376	Ave		1.3327				7.0		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5118	0.4676	0.4760	0.4610	0.5059	Ave		0.4845				4.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-269649/8	UXM1069.D
Level 2	STD8260 240-269649/9	UXM1070.D
Level 3	STD8260 240-269649/10	UXM1071.D
Level 4	ICIS 240-269649/11	UXM1072.D
Level 5	STD8260 240-269649/12	UXM1073.D
Level 6	STD8260 240-269649/13	UXM1074.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Lin1	+++++ 781570	7363	144339	295422	518895	+++++ 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	11433 1177280	16616	191963	367648	795169	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	11008 1111222	15466	184616	366850	751062	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	9627 975600	15052	169511	325041	661484	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4874 567516	9668	95908	182373	398917	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	5457 662554	9501	107445	210363	460132	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	13064 1532802	22455	247042	481794	1045233	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	5813 1016517	11937	174532	346361	673500	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5466 664729	10804	109487	209107	460345	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	4089 395186	6175	61572	132322	277762	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	7935 802449	11561	134745	253180	534914	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	3913 492269	7079	88466	175760	330305	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 443297	15237	95549	181970	293106	+++++ 120	2.00	20.0	40.0	80.0
Iodomethane	FB	Ave	11250 1262998	18882	205220	392260	848334	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	+++++ 2823634	43118	468180	873072	1892009	+++++ 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	+++++ 604804	8643	98271	186064	406086	+++++ 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	19873 2000009	37552	353013	680492	1389694	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Ave	+++++ 913967	19987	153038	280668	613849	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	+++++ 459992	9278	81319	165945	331856	+++++ 600	10.0	100	200	400
Acrylonitrile	FB	Ave	22955 2186283	38638	374445	728441	1524897	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	10522 903659	14749	148153	277185	609536	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	18966 2110226	33242	356231	674545	1452926	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	+++++ 792881	12293	154023	322240	540532	+++++ 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	12976 1595327	22827	260284	483200	1069118	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	11241 1167315	19600	196566	375918	822923	0.500 60.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	9233 999338	14807	162412	302161	670339	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7871 1060636	16820	186375	341440	726884	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	6161 492164	9913	95609	185628	335474	1.00 120	2.00	20.0	40.0	80.0
Chlorobromomethane	FB	Ave	3461 411367	6320	67641	125252	275178	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 296314	4823	51747	100292	204821	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	11412 1423179	21989	235247	432290	952349	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9445 1185569	17724	193699	368417	787251	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	10987 1331898	19306	234187	474415	889446	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	11733 1175350	17541	196376	374564	782465	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6887 969389	14108	161690	309521	652222	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3077 375788	7242	65286	139058	265262	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	29807 3521603	51633	571237	1070650	2356052	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	8150 946717	15066	158938	295981	645637	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 346932	36585	94435	166050	243414	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	8282 851673	13294	142245	265024	571449	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	8376 1087416	15105	193808	402470	730685	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	5518 817531	11959	133528	249231	558189	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3922 396075	6461	64350	125175	270217	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 112459	1881	19404	37397	76927	+++++ 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7053 963272	14474	154223	295036	650540	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5853 735859	11232	120475	239729	505879	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	11074 1304042	18007	206536	382842	862630	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	9949 932838	17319	177453	352667	672855	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	28340 3514611	50678	572833	1068732	2365283	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	9782 1023168	14493	168887	318082	701926	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6540 770633	12739	140123	269418	553871	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4807 541029	7910	89938	175118	380856	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	5629 583389	8436	97756	181930	395531	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8983 1038320	16036	174556	335931	714494	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	7251 694863	12803	144575	292872	487735	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	4862 640066	8858	101582	195995	430702	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	5380 526392	8396	89172	170665	363380	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	21435 2219749	31408	358166	673698	1500534	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6224 767906	9704	124366	233229	520141	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	9983 1199011	17392	197254	365971	799053	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	13890 1506627	20790	241420	460496	1005430	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	13468 1520769	20977	244367	465219	1046325	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	22234 2569399	34316	419412	785041	1747299	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	2474 357550	5378	58579	113437	242428	0.500 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	30692 3795919	47941	606346	1120338	2428735	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6339 680972	9957	118108	220694	444918	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	9649 873193	12372	144763	258455	561865	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1512 198812	2964	35206	64932	132346	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 170805	1689	29117	53089	111830	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	7807 976376	12547	159781	290362	624927	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	6683 861821	12180	139559	257520	565620	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	24644 3115350	39247	485907	885315	2015967	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	8371 905522	12697	146569	263293	590864	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	24184 2642504	35152	417685	755457	1713665	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	27757 3262770	42773	507603	929989	2054828	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	28133 3471983	45072	544540	1007699	2162779	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	16827 1707362	22190	270320	514521	1074020	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	25298 3002059	39450	467510	899848	1867574	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	18696 1724125	24126	279655	528857	1100683	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 269649

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:00 Calibration End Date: 03/08/2017 11:56 Calibration ID: 38701

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	21550 2503872	31567	386793	740540	1536569	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	15081 1597094	22474	257257	498079	1018230	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 113109	1127	18498	37211	74560	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	+++++ 814042	11794	126419	248398	568777	+++++ 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4079 327414	5507	49705	98487	220182	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	+++++ 1723633	25131	262107	554730	1192625	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	+++++ 605654	8776	94116	191115	418595	+++++ 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 711519	10782	113630	219681	483071	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 749106	11156	126532	238378	522047	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2965794	41953	482714	908114	2024022	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1073793	16113	173841	328785	712309	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: ICV 240-269649/22 Calibration Date: 03/08/2017 12:42

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1076.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.2719	0.1000	0.0199	0.0200	-0.4	20.0
Chloromethane	Ave	0.3946	0.3908	0.1000	0.0198	0.0200	-1.0	20.0
Vinyl chloride	Ave	0.3777	0.3762	0.1000	0.0199	0.0200	-0.4	20.0
Butadiene	Ave	0.3394	0.3304		0.0195	0.0200	-2.7	30.0
Bromomethane	Ave	0.1948	0.1903	0.0500	0.0195	0.0200	-2.3	20.0
Chloroethane	Ave	0.2174	0.2233	0.0500	0.0205	0.0200	2.7	20.0
Dichlorofluoromethane	Ave	0.5046	0.4896		0.0194	0.0200	-3.0	20.0
Trichlorofluoromethane	Ave	0.3118	0.3299	0.1000	0.0212	0.0200	5.8	20.0
Ethyl ether	Ave	0.2225	0.2212		0.0199	0.0200	-0.6	20.0
Acrolein	Ave	0.0275	0.0308		0.112	0.100	12.0	50.0
1,1-Dichloroethene	Ave	0.2718	0.2590	0.1000	0.0191	0.0200	-4.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1658	0.1645	0.0500	0.0198	0.0200	-0.8	20.0
Acetone	Lin1		0.0589	0.0100	0.0282	0.0400	-29.5	50.0
Iodomethane	Ave	0.4190	0.4032		0.0192	0.0200	-3.8	20.0
Carbon disulfide	Ave	0.9260	0.9298	0.1000	0.0201	0.0200	0.4	20.0
3-Chloro-1-propene	Ave	0.1951	0.1897		0.0195	0.0200	-2.7	20.0
Methyl acetate	Ave	0.1453	0.1361	0.1000	0.0937	0.100	-6.3	20.0
Methylene Chloride	Ave	0.3244	0.2977	0.1000	0.0184	0.0200	-8.2	50.0
2-Methyl-2-propanol	Ave	0.0169	0.0170		0.201	0.200	0.4	50.0
Acrylonitrile	Ave	0.0788	0.0748		0.190	0.200	-5.1	20.0
trans-1,2-Dichloroethene	Ave	0.3207	0.2907	0.1000	0.0181	0.0200	-9.4	20.0
Methyl tert-butyl ether	Ave	0.7175	0.7209	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2862	0.2764		0.0193	0.0200	-3.4	20.0
1,1-Dichloroethane	Ave	0.5155	0.4990	0.2000	0.0194	0.0200	-3.2	20.0
Vinyl acetate	Ave	0.4080	0.3642		0.0179	0.0200	-10.7	50.0
2,2-Dichloropropane	Ave	0.3523	0.3499		0.0199	0.0200	-0.7	20.0
cis-1,2-Dichloroethene	Ave	0.3319	0.3162	0.1000	0.0191	0.0200	-4.7	20.0
2-Butanone (MEK)	Ave	0.0975	0.0717	0.0100	0.0294	0.0400	-26.5*	20.0
Chlorobromomethane	Ave	0.1354	0.1293		0.0191	0.0200	-4.5	20.0
Tetrahydrofuran	Ave	0.0509	0.0518		0.0407	0.0400	1.8	20.0
Chloroform	Ave	0.4653	0.4404	0.2000	0.0189	0.0200	-5.4	20.0
1,1,1-Trichloroethane	Ave	0.3853	0.3793	0.1000	0.0197	0.0200	-1.6	20.0
Cyclohexane	Ave	0.4495	0.4395	0.1000	0.0196	0.0200	-2.2	20.0
1,1-Dichloropropene	Ave	0.4011	0.3837		0.0191	0.0200	-4.3	20.0
Carbon tetrachloride	Ave	0.3114	0.3031	0.1000	0.0195	0.0200	-2.7	20.0
Isobutyl alcohol	Ave	0.0054	0.0054		0.504	0.500	0.7	20.0
1,2-Dichloroethane	Ave	0.3181	0.2972	0.1000	0.0187	0.0200	-6.6	20.0
Benzene	Ave	1.149	1.111	0.5000	0.0193	0.0200	-3.3	20.0
n-Heptane	Lin1		0.1358		0.0181	0.0200	-9.4	20.0
Trichloroethene	Ave	0.2904	0.2637	0.1500	0.0182	0.0200	-9.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: ICV 240-269649/22 Calibration Date: 03/08/2017 12:42

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1076.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3646	0.3520	0.1000	0.0193	0.0200	-3.4	20.0
1,2-Dichloropropane	Ave	0.2586	0.2527	0.1000	0.0195	0.0200	-2.3	20.0
Dibromomethane	Ave	0.1366	0.1261		0.0185	0.0200	-7.7	20.0
1,4-Dioxane	Ave	0.0019	0.0019		0.384	0.400	-4.0	50.0
Dichlorobromomethane	Ave	0.3083	0.2982	0.1500	0.0193	0.0200	-3.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1217	0.1133		0.0186	0.0200	-6.9	20.0
cis-1,3-Dichloropropene	Ave	0.4173	0.3763	0.1500	0.0180	0.0200	-9.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1775	0.1640	0.0500	0.0370	0.0400	-7.6	20.0
Toluene	Ave	1.569	1.502	0.4000	0.0191	0.0200	-4.3	20.0
trans-1,3-Dichloropropene	Ave	0.4735	0.4357	0.1000	0.0184	0.0200	-8.0	20.0
Ethyl methacrylate	Ave	0.3739	0.3790		0.0203	0.0200	1.4	20.0
1,1,2-Trichloroethane	Ave	0.2514	0.2519	0.1000	0.0200	0.0200	0.2	20.0
1,3-Dichloropropane	Ave	0.4833	0.4548		0.0188	0.0200	-5.9	20.0
Tetrachloroethene	Ave	0.2715	0.2516	0.1500	0.0185	0.0200	-7.3	20.0
2-Hexanone	Ave	0.1871	0.1656	0.0500	0.0354	0.0400	-11.5	20.0
Chlorodibromomethane	Ave	0.2804	0.2667		0.0190	0.0200	-4.9	20.0
Ethylene Dibromide	Ave	0.2542	0.2253		0.0177	0.0200	-11.4	20.0
Chlorobenzene	Ave	1.019	0.9259	0.3000	0.0182	0.0200	-9.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3365	0.3317		0.0197	0.0200	-1.4	20.0
Ethylbenzene	Ave	0.5389	0.5057		0.0188	0.0200	-6.2	20.0
m-Xylene & p-Xylene	Ave	0.6815	0.6249		0.0183	0.0200	-8.3	20.0
o-Xylene	Ave	0.6870	0.6495		0.0189	0.0200	-5.5	20.0
Styrene	Ave	1.151	1.073	0.3000	0.0186	0.0200	-6.8	20.0
Bromoform	Ave	0.1585	0.1542	0.1000	0.0194	0.0200	-2.8	20.0
Isopropylbenzene	Ave	1.634	1.580	0.1000	0.0193	0.0200	-3.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5763	0.5612	0.3000	0.0195	0.0200	-2.6	20.0
Bromobenzene	Ave	0.7422	0.6489		0.0175	0.0200	-12.6	20.0
1,2,3-Trichloropropane	Ave	0.1646	0.1636		0.0199	0.0200	-0.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1326	0.1291		0.0195	0.0200	-2.6	20.0
N-Propylbenzene	Ave	0.7686	0.7180		0.0187	0.0200	-6.6	20.0
2-Chlorotoluene	Ave	0.6871	0.6482		0.0189	0.0200	-5.7	20.0
1,3,5-Trimethylbenzene	Ave	2.409	2.247		0.0187	0.0200	-6.7	20.0
4-Chlorotoluene	Ave	0.7390	0.6668		0.0180	0.0200	-9.8	20.0
tert-Butylbenzene	Ave	2.120	1.803		0.0170	0.0200	-14.9	20.0
1,2,4-Trimethylbenzene	Ave	2.556	2.345		0.0183	0.0200	-8.3	20.0
sec-Butylbenzene	Ave	2.700	2.435		0.0180	0.0200	-9.8	20.0
1,3-Dichlorobenzene	Ave	1.389	1.256	0.6000	0.0181	0.0200	-9.5	20.0
4-Isopropyltoluene	Ave	2.363	2.134		0.0181	0.0200	-9.7	20.0
1,4-Dichlorobenzene	Ave	1.458	1.301	0.5000	0.0179	0.0200	-10.7	20.0
n-Butylbenzene	Ave	1.955	1.763		0.0180	0.0200	-9.8	20.0
1,2-Dichlorobenzene	Ave	1.317	1.235	0.4000	0.0188	0.0200	-6.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: ICV 240-269649/22 Calibration Date: 03/08/2017 12:42

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1076.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0883	0.0978	0.0500	0.0222	0.0200	10.8	50.0
1,2,4-Trichlorobenzene	Ave	0.6658	0.6684	0.2000	0.0201	0.0200	0.4	50.0
Hexachlorobutadiene	Ave	0.2923	0.2435		0.0167	0.0200	-16.7	20.0
Naphthalene	Ave	1.417	1.484		0.0209	0.0200	4.7	50.0
1,2,3-Trichlorobenzene	Ave	0.4974	0.5130		0.0206	0.0200	3.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2319	0.2290		0.0197	0.0200	-1.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2489	0.2469		0.0198	0.0200	-0.8	20.0
Toluene-d8 (Surr)	Ave	1.333	1.371		0.0206	0.0200	2.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4845	0.5087		0.0210	0.0200	5.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab File ID: BFB5189.D BFB Injection Date: 03/21/2017

Instrument ID: A3UX16 BFB Injection Time: 08:31

Analysis Batch No.: 271291

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.8	
75	30.0 - 60.0 % of mass 95	46.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	76.0	
175	5.0 - 9.0 % of mass 174	5.7	(7.5) 1
176	95.0 - 101.0 % of mass 174	74.0	(97.4) 1
177	5.0 - 9.0 % of mass 176	5.2	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-271291/3	UXM1305.D	03/21/2017	08:55
	LCS 240-271291/4	UXM1306.D	03/21/2017	09:18
	CCV 240-271291/5	UXM1307.D	03/21/2017	09:41
	MB 240-271291/7	UXM1309.D	03/21/2017	10:27
TB-031717	240-76938-1	UXM1322.D	03/21/2017	16:47
MRC-MW116A-031717	240-76938-2	UXM1323.D	03/21/2017	17:10
MRC-MW57A-031717	240-76938-3	UXM1324.D	03/21/2017	17:33

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: CCVIS 240-271291/3 Calibration Date: 03/21/2017 08:55

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.2995	0.1000	0.0219	0.0200	9.5	20.0
Chloromethane	Ave	0.3946	0.4165	0.1000	0.0211	0.0200	5.5	20.0
Vinyl chloride	Ave	0.3777	0.3825	0.1000	0.0203	0.0200	1.3	20.0
Butadiene	Ave	0.3394	0.3097		0.0182	0.0200	-8.8	20.0
Bromomethane	Ave	0.1948	0.2004	0.0500	0.0206	0.0200	2.9	20.0
Chloroethane	Ave	0.2174	0.2192	0.0500	0.0202	0.0200	0.8	20.0
Dichlorofluoromethane	Ave	0.5046	0.4978		0.0197	0.0200	-1.3	20.0
Trichlorofluoromethane	Ave	0.3118	0.3446	0.1000	0.0221	0.0200	10.5	20.0
Ethyl ether	Ave	0.2225	0.2218		0.0199	0.0200	-0.3	20.0
Acrolein	Ave	0.0275	0.0286		0.104	0.100	3.7	50.0
1,1-Dichloroethene	Ave	0.2718	0.2579	0.1000	0.0190	0.0200	-5.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1658	0.1493	0.0500	0.0180	0.0200	-10.0	20.0
Acetone	Lin1		0.0785	0.0100	0.0383	0.0400	-4.2	50.0
Iodomethane	Ave	0.4190	0.4164		0.0199	0.0200	-0.6	20.0
Carbon disulfide	Ave	0.9260	0.8884	0.1000	0.0192	0.0200	-4.1	20.0
3-Chloro-1-propene	Ave	0.1951	0.1928		0.0198	0.0200	-1.2	20.0
Methyl acetate	Ave	0.1453	0.1361	0.1000	0.0937	0.100	-6.3	20.0
Methylene Chloride	Ave	0.3244	0.3053	0.1000	0.0188	0.0200	-5.9	50.0
2-Methyl-2-propanol	Ave	0.0169	0.0159		0.188	0.200	-5.9	50.0
Acrylonitrile	Ave	0.0788	0.0744		0.189	0.200	-5.6	20.0
trans-1,2-Dichloroethene	Ave	0.3207	0.3010	0.1000	0.0188	0.0200	-6.1	20.0
Methyl tert-butyl ether	Ave	0.7175	0.7130	0.1000	0.0199	0.0200	-0.6	20.0
Hexane	Ave	0.2862	0.2494		0.0174	0.0200	-12.9	20.0
1,1-Dichloroethane	Ave	0.5155	0.5239	0.2000	0.0203	0.0200	1.6	20.0
Vinyl acetate	Ave	0.4080	0.3601		0.0177	0.0200	-11.7	50.0
cis-1,2-Dichloroethene	Ave	0.3319	0.3302	0.1000	0.0199	0.0200	-0.5	20.0
2,2-Dichloropropane	Ave	0.3523	0.3626		0.0206	0.0200	2.9	20.0
2-Butanone (MEK)	Ave	0.0975	0.0874	0.0100	0.0359	0.0400	-10.3	20.0
Chlorobromomethane	Ave	0.1354	0.1383		0.0204	0.0200	2.1	20.0
Tetrahydrofuran	Ave	0.0509	0.0499		0.0392	0.0400	-1.9	20.0
Chloroform	Ave	0.4653	0.4767	0.2000	0.0205	0.0200	2.4	20.0
1,1,1-Trichloroethane	Ave	0.3853	0.3810	0.1000	0.0198	0.0200	-1.1	20.0
Cyclohexane	Ave	0.4495	0.4060	0.1000	0.0181	0.0200	-9.7	20.0
1,1-Dichloropropene	Ave	0.4011	0.3881		0.0194	0.0200	-3.2	20.0
Carbon tetrachloride	Ave	0.3114	0.3118	0.1000	0.0200	0.0200	0.1	20.0
Isobutyl alcohol	Ave	0.0054	0.0054		0.498	0.500	-0.4	20.0
1,2-Dichloroethane	Ave	0.3181	0.3188	0.1000	0.0200	0.0200	0.2	20.0
Benzene	Ave	1.149	1.174	0.5000	0.0204	0.0200	2.2	20.0
n-Heptane	Lin1		0.1242		0.0161	0.0200	-19.5	20.0
Trichloroethene	Ave	0.2904	0.2884	0.1500	0.0199	0.0200	-0.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: CCVIS 240-271291/3 Calibration Date: 03/21/2017 08:55

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3646	0.3244	0.1000	0.0178	0.0200	-11.0	20.0
1,2-Dichloropropane	Ave	0.2586	0.2749	0.1000	0.0213	0.0200	6.3	20.0
Dibromomethane	Ave	0.1366	0.1340		0.0196	0.0200	-1.9	20.0
1,4-Dioxane	Ave	0.0019	0.0018		0.373	0.400	-6.8	50.0
Dichlorobromomethane	Ave	0.3083	0.3120	0.1500	0.0202	0.0200	1.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1217	0.1189		0.0391	0.0400	-2.2	20.0
cis-1,3-Dichloropropene	Ave	0.4173	0.4173	0.1500	0.0200	0.0200	0.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1775	0.1655	0.0500	0.0373	0.0400	-6.7	20.0
Toluene	Ave	1.569	1.529	0.4000	0.0195	0.0200	-2.5	20.0
trans-1,3-Dichloropropene	Ave	0.4735	0.4389	0.1000	0.0185	0.0200	-7.3	20.0
Ethyl methacrylate	Ave	0.3739	0.3587		0.0192	0.0200	-4.1	20.0
1,1,2-Trichloroethane	Ave	0.2514	0.2443	0.1000	0.0194	0.0200	-2.8	20.0
1,3-Dichloropropane	Ave	0.4833	0.4665		0.0193	0.0200	-3.5	20.0
Tetrachloroethene	Ave	0.2715	0.2563	0.1500	0.0189	0.0200	-5.6	20.0
2-Hexanone	Ave	0.1871	0.1785	0.0500	0.0381	0.0400	-4.6	20.0
Chlorodibromomethane	Ave	0.2804	0.2783		0.0199	0.0200	-0.7	20.0
Ethylene Dibromide	Ave	0.2542	0.2345		0.0185	0.0200	-7.7	20.0
Chlorobenzene	Ave	1.019	0.9774	0.3000	0.0192	0.0200	-4.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3365	0.3284		0.0195	0.0200	-2.4	20.0
Ethylbenzene	Ave	0.5389	0.5249		0.0195	0.0200	-2.6	20.0
m-Xylene & p-Xylene	Ave	0.6815	0.6473		0.0190	0.0200	-5.0	20.0
o-Xylene	Ave	0.6870	0.6601		0.0192	0.0200	-3.9	20.0
Styrene	Ave	1.151	1.112	0.3000	0.0193	0.0200	-3.4	20.0
Bromoform	Ave	0.1585	0.1588	0.1000	0.0200	0.0200	0.2	20.0
Isopropylbenzene	Ave	1.634	1.592	0.1000	0.0195	0.0200	-2.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5763	0.5668	0.3000	0.0197	0.0200	-1.6	20.0
Bromobenzene	Ave	0.7422	0.7051		0.0190	0.0200	-5.0	20.0
1,2,3-Trichloropropane	Ave	0.1646	0.1638		0.0199	0.0200	-0.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1326	0.1380		0.0208	0.0200	4.1	20.0
N-Propylbenzene	Ave	0.7686	0.7487		0.0195	0.0200	-2.6	20.0
2-Chlorotoluene	Ave	0.6871	0.6772		0.0197	0.0200	-1.4	20.0
1,3,5-Trimethylbenzene	Ave	2.409	2.290		0.0190	0.0200	-4.9	20.0
4-Chlorotoluene	Ave	0.7390	0.7074		0.0191	0.0200	-4.3	20.0
tert-Butylbenzene	Ave	2.120	1.916		0.0181	0.0200	-9.6	20.0
1,2,4-Trimethylbenzene	Ave	2.556	2.431		0.0190	0.0200	-4.9	20.0
sec-Butylbenzene	Ave	2.700	2.524		0.0187	0.0200	-6.5	20.0
1,3-Dichlorobenzene	Ave	1.389	1.334	0.6000	0.0192	0.0200	-3.9	20.0
4-Isopropyltoluene	Ave	2.363	2.186		0.0185	0.0200	-7.5	20.0
1,4-Dichlorobenzene	Ave	1.458	1.333	0.5000	0.0183	0.0200	-8.5	20.0
n-Butylbenzene	Ave	1.955	1.777		0.0182	0.0200	-9.1	20.0
1,2-Dichlorobenzene	Ave	1.317	1.246	0.4000	0.0189	0.0200	-5.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab Sample ID: CCVIS 240-271291/3 Calibration Date: 03/21/2017 08:55

Instrument ID: A3UX16 Calib Start Date: 03/08/2017 10:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/08/2017 11:56

Lab File ID: UXM1305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0883	0.0870	0.0500	0.0197	0.0200	-1.5	50.0
1,2,4-Trichlorobenzene	Ave	0.6658	0.6183	0.2000	0.0186	0.0200	-7.1	50.0
Hexachlorobutadiene	Ave	0.2923	0.2326		0.0159	0.0200	-20.4*	20.0
Naphthalene	Ave	1.417	1.300		0.0183	0.0200	-8.3	50.0
1,2,3-Trichlorobenzene	Ave	0.4974	0.4685		0.0188	0.0200	-5.8	20.0
Dibromofluoromethane (Surr)	Ave	0.2319	0.2343		0.0202	0.0200	1.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2489	0.2441		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.333	1.319		0.0198	0.0200	-1.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4845	0.5163		0.0213	0.0200	6.6	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab File ID: UXM1309.D Lab Sample ID: MB 240-271291/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 03/21/2017 10:27

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-271291/4	UXM1306.D	03/21/2017 09:18
TB-031717	240-76938-1	UXM1322.D	03/21/2017 16:47
MRC-MW116A-031717	240-76938-2	UXM1323.D	03/21/2017 17:10
MRC-MW57A-031717	240-76938-3	UXM1324.D	03/21/2017 17:33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-271291/7

Matrix: Water | Lab File ID: UXM1309.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 10:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-271291/7

Matrix: Water | Lab File ID: UXM1309.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/21/2017 10:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271291 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	1.17		1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	110		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-132

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1306.D

Lab ID: LCS 240-271291/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	19.9	99	79-133	
1,1,2,2-Tetrachloroethane	20.0	19.7	98	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.4	97	65-151	
1,1,2-Trichloroethane	20.0	19.7	99	80-120	
1,1-Dichloroethane	20.0	20.3	101	77-121	
1,1-Dichloroethene	20.0	19.2	96	70-141	
1,2,4-Trichlorobenzene	20.0	18.7	94	53-137	
1,2-Dibromo-3-Chloropropane	20.0	21.5	107	46-140	
Ethylene Dibromide	20.0	18.5	92	80-126	
1,2-Dichlorobenzene	20.0	19.0	95	80-120	
1,2-Dichloroethane	20.0	19.8	99	76-130	
1,2-Dichloropropane	20.0	21.1	105	79-121	
1,3-Dichlorobenzene	20.0	18.8	94	80-120	
1,4-Dichlorobenzene	20.0	18.4	92	80-120	
2-Butanone (MEK)	40.0	31.3	78	54-122	
2-Hexanone	40.0	32.8	82	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	39.0	98	60-131	
Acetone	40.0	26.5	66	46-120	
Benzene	20.0	20.3	101	80-120	
Dichlorobromomethane	20.0	21.0	105	76-125	
Bromoform	20.0	19.9	100	52-157	
Bromomethane	20.0	19.8	99	24-160	
Carbon disulfide	20.0	19.8	99	58-160	
Carbon tetrachloride	20.0	20.4	102	69-149	
Chlorobenzene	20.0	18.9	95	80-120	
Chloroethane	20.0	20.3	102	24-147	
Chloroform	20.0	20.3	101	80-120	
Chloromethane	20.0	18.9	94	50-135	
cis-1,2-Dichloroethene	20.0	20.0	100	80-120	
cis-1,3-Dichloropropene	20.0	20.0	100	75-120	
Cyclohexane	20.0	19.3	96	66-135	
Chlorodibromomethane	20.0	19.3	96	68-131	
Dichlorodifluoromethane	20.0	16.6	83	32-140	
Ethylbenzene	20.0	19.2	96	80-120	
Isopropylbenzene	20.0	19.3	96	80-120	
Methyl acetate	100	98.8	99	65-124	
Methyl tert-butyl ether	20.0	20.6	103	75-126	
Methylcyclohexane	20.0	18.6	93	71-122	
Methylene Chloride	20.0	19.8	99	68-136	
Styrene	20.0	19.1	96	80-120	
Tetrachloroethene	20.0	18.4	92	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1306.D

Lab ID: LCS 240-271291/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	19.2	96	80-121	
trans-1,2-Dichloroethene	20.0	19.3	97	80-123	
trans-1,3-Dichloropropene	20.0	18.2	91	65-120	
Trichloroethene	20.0	19.6	98	80-122	
Trichlorofluoromethane	20.0	21.4	107	56-161	
Vinyl chloride	20.0	18.9	94	60-129	
Xylenes, Total	40.0	37.7	94	80-120	
m-Xylene & p-Xylene	20.0	18.8	94	80-120	
o-Xylene	20.0	18.9	95	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Lab File ID: U1256079.D Lab Sample ID: MB 240-271642/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 03/23/2017 10:34

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-271642/4	U1256076.D	03/23/2017 09:20
MRC-MW95B-031717	240-76938-4	U1256097.D	03/23/2017 19:13
MRC-MW115A-031717	240-76938-5	U1256098.D	03/23/2017 19:37
	240-76678-A-3 MS	U1256099.D	03/23/2017 20:02
	240-76678-A-3 MSD	U1256100.D	03/23/2017 20:27

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-271642/7

Matrix: Water | Lab File ID: U1256079.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 10:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-271642/7

Matrix: Water | Lab File ID: U1256079.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 10:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	1.58		1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-124
1868-53-7	Dibromofluoromethane (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	86		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		63-132

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256076.D

Lab ID: LCS 240-271642/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	19.8	99	79-133	
1,1,2,2-Tetrachloroethane	20.0	18.6	93	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	16.0	80	65-151	
1,1,2-Trichloroethane	20.0	18.5	93	80-120	
1,1-Dichloroethane	20.0	21.8	109	77-121	
1,1-Dichloroethene	20.0	21.2	106	70-141	
1,2,4-Trichlorobenzene	20.0	13.7	68	53-137	
1,2-Dibromo-3-Chloropropane	20.0	16.8	84	46-140	
Ethylene Dibromide	20.0	18.3	91	80-126	
1,2-Dichlorobenzene	20.0	17.6	88	80-120	
1,2-Dichloroethane	20.0	21.7	108	76-130	
1,2-Dichloropropane	20.0	22.8	114	79-121	
1,3-Dichlorobenzene	20.0	17.8	89	80-120	
1,4-Dichlorobenzene	20.0	17.8	89	80-120	
2-Butanone (MEK)	40.0	29.8	75	54-122	
2-Hexanone	40.0	27.0	67	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	34.4	86	60-131	
Acetone	40.0	28.6	72	46-120	
Benzene	20.0	22.1	110	80-120	
Dichlorobromomethane	20.0	22.6	113	76-125	
Bromoform	20.0	18.1	91	52-157	
Bromomethane	20.0	18.5	93	24-160	
Carbon disulfide	20.0	19.2	96	58-160	
Carbon tetrachloride	20.0	18.0	90	69-149	
Chlorobenzene	20.0	18.7	93	80-120	
Chloroethane	20.0	21.1	105	24-147	
Chloroform	20.0	22.6	113	80-120	
Chloromethane	20.0	20.6	103	50-135	
cis-1,2-Dichloroethene	20.0	22.4	112	80-120	
cis-1,3-Dichloropropene	20.0	20.9	105	75-120	
Cyclohexane	20.0	15.3	77	66-135	
Chlorodibromomethane	20.0	17.8	89	68-131	
Dichlorodifluoromethane	20.0	15.5	77	32-140	
Ethylbenzene	20.0	18.5	92	80-120	
Isopropylbenzene	20.0	17.2	86	80-120	
Methyl acetate	100	93.1	93	65-124	
Methyl tert-butyl ether	20.0	17.8	89	75-126	
Methylcyclohexane	20.0	14.0	70	71-122	*
Methylene Chloride	20.0	21.3	107	68-136	
Styrene	20.0	18.4	92	80-120	
Tetrachloroethene	20.0	17.6	88	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256076.D

Lab ID: LCS 240-271642/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	18.1	91	80-121	
trans-1,2-Dichloroethene	20.0	22.9	114	80-123	
trans-1,3-Dichloropropene	20.0	17.6	88	65-120	
Trichloroethene	20.0	21.7	108	80-122	
Trichlorofluoromethane	20.0	20.4	102	56-161	
Vinyl chloride	20.0	21.4	107	60-129	
Xylenes, Total	40.0	36.1	90	80-120	
m-Xylene & p-Xylene	20.0	18.2	91	80-120	
o-Xylene	20.0	17.9	90	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256099.D

Lab ID: 240-76678-A-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	1000	12 U	923	92	55-150	
1,1,2,2-Tetrachloroethane	1000	16 U	834	83	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	21 U	920	92	41-149	
1,1,2-Trichloroethane	1000	17 U	924	92	65-130	
1,1-Dichloroethane	1000	13 U	1070	107	57-135	
1,1-Dichloroethene	1000	14 U	1110	111	50-156	
1,2,4-Trichlorobenzene	1000	14 U	627	63	35-140	
1,2-Dibromo-3-Chloropropane	1000	24 U	691	69	37-139	
Ethylene Dibromide	1000	12 U	878	88	64-137	
1,2-Dichlorobenzene	1000	13 U	819	82	62-123	
1,2-Dichloroethane	1000	15 U	1050	105	62-137	
1,2-Dichloropropane	1000	15 U	1120	112	66-130	
1,3-Dichlorobenzene	1000	16 U	845	85	59-122	
1,4-Dichlorobenzene	1000	12 U	851	85	60-122	
2-Butanone (MEK)	2000	51 U	1390	70	38-123	
2-Hexanone	2000	62 U	1200	60	41-135	
4-Methyl-2-pentanone (MIBK)	2000	36 U	1470	73	43-143	
Acetone	2000	88 U	1300	65	28-120	
Benzene	1000	14 U	1100	110	67-126	
Dichlorobromomethane	1000	15 U	1100	110	64-127	
Bromoform	1000	22 U	841	84	40-149	
Bromomethane	1000	21 U	914	91	10-169	
Carbon disulfide	1000	17 U	947	95	43-172	
Carbon tetrachloride	1000	18 U	861	86	51-154	
Chlorobenzene	1000	16 U	923	92	58-128	
Chloroethane	1000	21 U	1080	108	10-162	
Chloroform	1000	16 U	1130	113	67-133	
Chloromethane	1000	22 U	1040	104	30-143	
cis-1,2-Dichloroethene	1000	520	1630	110	64-134	
cis-1,3-Dichloropropene	1000	13 U	1010	101	58-120	
Cyclohexane	1000	22 U	911	91	36-144	
Chlorodibromomethane	1000	13 U	836	84	56-132	
Dichlorodifluoromethane	1000	25 U	807	81	16-140	
Ethylbenzene	1000	13 U	913	91	66-123	
Isopropylbenzene	1000	11 U	850	85	57-132	
Methyl acetate	5000	72 U	4410	88	46-135	
Methyl tert-butyl ether	1000	14 U	793	79	50-137	
Methylcyclohexane	1000	23 U	815	81	31-139	
Methylene Chloride	1000	72	1090	102	48-138	
Styrene	1000	12 U	921	92	62-131	
Tetrachloroethene	1000	15 U	890	89	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256099.D

Lab ID: 240-76678-A-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	1000	12 U	904	90	63-130	
trans-1,2-Dichloroethene	1000	15 U	1120	112	70-137	
trans-1,3-Dichloropropene	1000	16 U	826	83	48-120	
Trichloroethene	1000	1300	2370	104	58-139	
Trichlorofluoromethane	1000	25 U	1020	102	26-175	
Vinyl chloride	1000	69	1160	109	38-147	
Xylenes, Total	2000	12 U	1790	90	60-126	
m-Xylene & p-Xylene	1000	12 U	893	89	58-127	
o-Xylene	1000	14 U	900	90	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256100.D

Lab ID: 240-76678-A-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	1000	966	97	5	35	55-150	
1,1,2,2-Tetrachloroethane	1000	925	92	10	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	977	98	6	35	41-149	
1,1,2-Trichloroethane	1000	939	94	2	35	65-130	
1,1-Dichloroethane	1000	1080	108	1	35	57-135	
1,1-Dichloroethene	1000	1140	114	3	35	50-156	
1,2,4-Trichlorobenzene	1000	669	67	6	35	35-140	
1,2-Dibromo-3-Chloropropane	1000	779	78	12	35	37-139	
Ethylene Dibromide	1000	908	91	3	35	64-137	
1,2-Dichlorobenzene	1000	856	86	4	35	62-123	
1,2-Dichloroethane	1000	1090	109	3	35	62-137	
1,2-Dichloropropane	1000	1140	114	1	35	66-130	
1,3-Dichlorobenzene	1000	866	87	2	35	59-122	
1,4-Dichlorobenzene	1000	885	89	4	35	60-122	
2-Butanone (MEK)	2000	1410	70	1	35	38-123	
2-Hexanone	2000	1240	62	3	35	41-135	
4-Methyl-2-pentanone (MIBK)	2000	1590	79	8	35	43-143	
Acetone	2000	1310	65	1	35	28-120	
Benzene	1000	1110	111	1	31	67-126	
Dichlorobromomethane	1000	1130	113	3	35	64-127	
Bromoform	1000	870	87	3	35	40-149	
Bromomethane	1000	929	93	2	35	10-169	
Carbon disulfide	1000	1000	100	5	35	43-172	
Carbon tetrachloride	1000	889	89	3	35	51-154	
Chlorobenzene	1000	916	92	1	35	58-128	
Chloroethane	1000	1080	108	0	35	10-162	
Chloroform	1000	1160	116	3	35	67-133	
Chloromethane	1000	1050	105	1	35	30-143	
cis-1,2-Dichloroethene	1000	1630	111	0	35	64-134	
cis-1,3-Dichloropropene	1000	1030	103	1	35	58-120	
Cyclohexane	1000	953	95	5	35	36-144	
Chlorodibromomethane	1000	865	87	3	35	56-132	
Dichlorodifluoromethane	1000	881	88	9	35	16-140	
Ethylbenzene	1000	912	91	0	34	66-123	
Isopropylbenzene	1000	852	85	0	35	57-132	
Methyl acetate	5000	4600	92	4	34	46-135	
Methyl tert-butyl ether	1000	831	83	5	35	50-137	
Methylcyclohexane	1000	837	84	3	35	31-139	
Methylene Chloride	1000	1110	104	2	35	48-138	
Styrene	1000	920	92	0	35	62-131	
Tetrachloroethene	1000	909	91	2	35	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256100.D

Lab ID: 240-76678-A-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	1000	904	90	0	33	63-130	
trans-1,2-Dichloroethene	1000	1180	118	5	25	70-137	
trans-1,3-Dichloropropene	1000	857	86	4	35	48-120	
Trichloroethene	1000	2350	102	1	35	58-139	
Trichlorofluoromethane	1000	1070	107	6	35	26-175	
Vinyl chloride	1000	1160	109	0	35	38-147	
Xylenes, Total	2000	1810	91	1	35	60-126	
m-Xylene & p-Xylene	1000	916	92	3	35	58-127	
o-Xylene	1000	895	89	1	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-031717	240-76938-1	106	109	99	105
MRC-MW116A-031717	240-76938-2	111	112	99	102
MRC-MW57A-031717	240-76938-3	106	110	96	101
MRC-MW95B-031717	240-76938-4	107	101	95	83
MRC-MW115A-031717	240-76938-5	109	100	95	85
	MB 240-271291/7	101	101	100	110
	MB 240-271642/7	107	100	91	86
	LCS 240-271291/4	104	99	99	106
	LCS 240-271642/4	111	100	95	88
	240-76678-A-3 MS	110	110	96	86
	240-76678-A-3 MSD	110	109	94	88

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Sample No.: ICIS 240-261782/9 Date Analyzed: 01/04/2017 21:02

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1254933.D Heated Purge: (Y/N) N

Calibration ID: 37743

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		946888	5.16	714452	7.81	430036	10.03
UPPER LIMIT		1893776	5.66	1428904	8.31	860072	10.53
LOWER LIMIT		473444	4.66	357226	7.31	215018	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-261782/18		921147	5.16	700893	7.81	441216	10.03
ICV 240-261782/19		925584	5.16	701417	7.81	412260	10.03
CCVIS 240-271642/3		955587	5.16	820796	7.82	427223	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Sample No.: CCVIS 240-271642/3 Date Analyzed: 03/23/2017 08:56

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1256075.D Heated Purge: (Y/N) N

Calibration ID: 37746

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		955587	5.16	820796	7.82	427223	10.03
UPPER LIMIT		1911174	5.66	1641592	8.32	854446	10.53
LOWER LIMIT		477794	4.66	410398	7.32	213612	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-271642/4		953669	5.16	807449	7.82	435759	10.03
CCV 240-271642/5		938469	5.16	801639	7.82	414208	10.03
MB 240-271642/7		907829	5.16	801843	7.82	403721	10.03
240-76938-4	MRC-MW95B-031717	920835	5.17	782539	7.82	409266	10.03
240-76938-5	MRC-MW115A-031717	915932	5.16	778235	7.82	406532	10.03
240-76678-A-3 MS		951555	5.16	805122	7.82	449994	10.03
240-76678-A-3 MSD		946776	5.16	812657	7.82	438102	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Sample No.: ICIS 240-265930/11 Date Analyzed: 02/08/2017 12:27

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM0698.D Heated Purge: (Y/N) N

Calibration ID: 38230

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		949364	5.25	718358	7.93	402378	10.16
UPPER LIMIT		1898728	5.75	1436716	8.43	804756	10.66
LOWER LIMIT		474682	4.75	359179	7.43	201189	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-265930/23		897837	5.25	665536	7.93	355800	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Sample No.: ICIS 240-269649/11 Date Analyzed: 03/08/2017 11:10

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1072.D Heated Purge: (Y/N) N

Calibration ID: 38701

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		986646	5.25	713182	7.93	395520	10.16
UPPER LIMIT		1973292	5.75	1426364	8.43	791040	10.66
LOWER LIMIT		493323	4.75	356591	7.43	197760	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-269649/22		982675	5.24	673177	7.92	383684	10.16
CCVIS 240-271291/3		1029470	5.25	775609	7.93	413333	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Sample No.: CCVIS 240-271291/3 Date Analyzed: 03/21/2017 08:55

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1305.D Heated Purge: (Y/N) N

Calibration ID: 38701

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1029470	5.25	775609	7.93	413333	10.16
UPPER LIMIT		2058940	5.75	1551218	8.43	826666	10.66
LOWER LIMIT		514735	4.75	387805	7.43	206667	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-271291/4		970501	5.24	755894	7.92	418809	10.16
CCV 240-271291/5		952366	5.24	728288	7.92	415543	10.16
MB 240-271291/7		927116	5.25	718070	7.92	385263	10.16
240-76938-1	TB-031717	663241	5.25	506851	7.92	287826	10.16
240-76938-2	MRC-MW116A-031717	582044	5.25	443202	7.93	243119	10.16
240-76938-3	MRC-MW57A-031717	526826	5.25	406352	7.93	219368	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

SAMPLE IDENTIFICATION	MRC-MW115A-031717
COMPOUND	Trichloroethene
COMPOUND AREA	5179
INTERNAL STANDARD AMOUNT (ug)	20
DILUTION FACTOR	1
INTERNAL STANDARD AREA	915932
AVERAGE RRF	0.3343

5179 x 20 x 1 / 915932 x 0.3343 = 0.3383 ug/L

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-76938-1

SDG No.:

Client Sample ID: MRC-MW115A-031717 | Lab Sample ID: 240-76938-5

Matrix: Water | Lab File ID: U1256098.D

Analysis Method: 8260C | Date Collected: 03/17/2017 14:56

Sample wt/vol: 5(mL) | Date Analyzed: 03/23/2017 19:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 271642 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-76938-1

SDG No.:

Client Sample ID: MRC-MW115A-031717 Lab Sample ID: 240-76938-5

Matrix: Water Lab File ID: U1256098.D

Analysis Method: 8260C Date Collected: 03/17/2017 14:56

Sample wt/vol: 5(mL) Date Analyzed: 03/23/2017 19:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 271642 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U *	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.34	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-124
1868-53-7	Dibromofluoromethane (Surr)	109		80-120
460-00-4	4-Bromofluorobenzene (Surr)	85		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		63-132

Sample Calculation - Page 4

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20170323-63379.b\U1256098.D
Lims ID: 240-76938-A-5
Client ID: MRC-MW115A-031717
Sample Type: Client
Inject. Date: 23-Mar-2017 19:37:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0063379-026
Operator ID: 001765 Instrument ID: A3UX12

Method: \\ChromNA\Canton\ChromData\A3UX12\20170323-63379.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 24-Mar-2017 08:38:59 Calib Date: 05-Jan-2017 00:42:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20170104-61282.b\U1254942.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: bosworthh Date: 24-Mar-2017 08:40:12

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	5.157	5.157	0.000	99	915932	20.0	
*	2 Chlorobenzene-d5	117	7.820	7.820	0.000	86	778235	20.0	
*	3 1,4-Dichlorobenzene-d4	152	10.032	10.032	0.000	95	406532	20.0	
$	4 Dibromofluoromethane (Surr	113	4.601	4.601	0.000	93	215967	17.9	
$	5 1,2-Dichloroethane-d4 (Sur	65	4.885	4.885	0.000	91	254181	16.6	
$	6 Toluene-d8 (Surr)	98	6.518	6.518	0.000	92	971687	15.6	
$	7 4-Bromofluorobenzene (Surr	95	8.920	8.920	0.000	93	347356	14.1	
	9 Dichlorodifluoromethane	85		1.406				ND	
	10 Chloromethane	50		1.536				ND	
	11 Vinyl chloride	62		1.643				ND	
	13 Bromomethane	94		1.939				ND	
	14 Chloroethane	64		2.045				ND	
	16 Trichlorofluoromethane	101		2.258				ND	
	21 1,1-Dichloroethene	61		2.720				ND	
	20 1,1,2-Trichloro-1,2,2-trif	101		2.732				ND	
	22 Acetone	43		2.755				ND	
	24 Carbon disulfide	76		2.909				ND	
	27 Methyl acetate	43		3.039				ND	
	28 Methylene Chloride	49		3.146				ND	
	32 trans-1,2-Dichloroethene	61		3.347				ND	
	31 Methyl tert-butyl ether	73		3.359				ND	
	34 1,1-Dichloroethane	63		3.714				ND	
	40 cis-1,2-Dichloroethene	61		4.199				ND	
	41 2-Butanone (MEK)	43		4.211				ND	
	47 Chloroform	83		4.459				ND	
	48 1,1,1-Trichloroethane	97		4.625				ND	
	49 Cyclohexane	84		4.672				ND	
	51 Carbon tetrachloride	117		4.767				ND	
	53 Benzene	78		4.932				ND	
	54 1,2-Dichloroethane	62		4.944				ND	
	58 Trichloroethene	130	5.477	5.477	0.000	89	5179	0.3383	
	60 Methylcyclohexane	83		5.642				ND	

Report Date: 24-Mar-2017 08:40:12 Chrom Revision: 2.2 22-Mar-2017 08:36:42
Data File: \\ChromNA\Canton\ChromData\A3UX12\20170323-63379.b\U1256098.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
61 1,2-Dichloropropane	63		5.666				ND	
65 Dichlorobromomethane	83		5.891				ND	
68 cis-1,3-Dichloropropene	75		6.281				ND	
69 4-Methyl-2-pentanone (MIBK	43		6.412				ND	
70 Toluene	91		6.577				ND	
71 trans-1,3-Dichloropropene	75		6.767				ND	
74 1,1,2-Trichloroethane	97		6.932				ND	
75 Tetrachloroethene	166		7.062				ND	
77 2-Hexanone	43		7.145				ND	
79 Chlorodibromomethane	129		7.287				ND	
80 Ethylene Dibromide	107		7.394				ND	
82 Chlorobenzene	112		7.843				ND	
84 Ethylbenzene	106		7.938				ND	
85 m-Xylene & p-Xylene	106		8.044				ND	
86 o-Xylene	106		8.423				ND	
87 Styrene	104		8.435				ND	
88 Bromoform	173		8.612				ND	
89 Isopropylbenzene	105		8.766				ND	
91 1,1,2,2-Tetrachloroethane	83		9.050				ND	
103 1,3-Dichlorobenzene	146		9.973				ND	
105 1,4-Dichlorobenzene	146		10.056				ND	
109 1,2-Dichlorobenzene	146		10.423				ND	
110 1,2-Dibromo-3-Chloropropan	157		11.192				ND	
112 1,2,4-Trichlorobenzene	180		12.020				ND	
S 126 Xylenes, Total	106		16.030				ND	

Reagents:

vm100ss_stk_00024	Amount Added:	0.83	Units: uL	Run Reagent
vmDist_H2o_00089	Amount Added:	0.00	Units:	Run Reagent
vm100is_stk_00031	Amount Added:	1.00	Units: uL	Run Reagent

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-76938-1 Analy Batch No.: 261782

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2017 19:48 Calibration End Date: 01/04/2017 21:51 Calibration ID: 37743

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0145 0.0138	0.0182	0.0131	0.0142	0.0143	Ave		0.0147				12.2		20.0			
Benzene	1.3184 1.3483	1.4147	1.3479	1.3538	1.3535	Ave		1.3561			0.5000	2.3		20.0			
1,2-Dichloroethane	0.3651 0.4052	0.4177	0.3982	0.4103	0.3990	Ave		0.3992			0.1000	4.6		20.0			
n-Heptane	+++++ 0.1963	0.8681	0.2777	0.2325	0.2096	Lin1	0.6975	0.1906							0.9980		0.9900
Trichloroethene	0.3521 0.3308	0.3278	0.3305	0.3354	0.3293	Ave		0.3343			0.1500	2.7		20.0			
Methylcyclohexane	0.5425 0.4799	0.5349	0.5480	0.5216	0.4945	Ave		0.5202			0.1000	5.3		20.0			
1,2-Dichloropropane	0.2940 0.3277	0.3284	0.3293	0.3345	0.3338	Ave		0.3246			0.1000	4.7		20.0			
Dibromomethane	0.2154 0.2187	0.2359	0.2135	0.2215	0.2231	Ave		0.2213				3.6		20.0			
1,4-Dioxane	+++++ 0.0053	0.0047	0.0043	0.0056	0.0058	Ave		0.0051				12.2		20.0			
Dichlorobromomethane	0.3039 0.3837	0.3136	0.3569	0.3820	0.3867	Ave		0.3545			0.1500	10.5		20.0			
2-Chloroethyl vinyl ether	0.2031 0.2247	0.2155	0.2079	0.2154	0.2210	Ave		0.2146				3.7		20.0			
cis-1,3-Dichloropropene	0.5374 0.5622	0.4897	0.5287	0.5494	0.5611	Ave		0.5381			0.1500	5.0		20.0			
4-Methyl-2-pentanone (MIBK)	0.3710 0.3700	0.4169	0.3623	0.3690	0.3699	Ave		0.3765			0.0500	5.3		20.0			
Toluene	2.4054 1.9097	2.1056	1.9344	1.9227	1.9428	Ave		2.0367			0.4000	9.5		20.0			
trans-1,3-Dichloropropene	0.6033 0.6816	0.5873	0.6294	0.6594	0.6759	Ave		0.6395			0.1000	6.1		20.0			
Ethyl methacrylate	0.6392 0.6699	0.7146	0.6403	0.6515	0.6768	Ave		0.6654				4.3		20.0			
1,1,2-Trichloroethane	0.3671 0.4004	0.4116	0.3953	0.3989	0.3994	Ave		0.3954			0.1000	3.8		20.0			
Tetrachloroethene	0.4602 0.4473	0.4499	0.4621	0.4561	0.4463	Ave		0.4536			0.1500	1.5		20.0			
1,3-Dichloropropane	0.7612 0.7606	0.7546	0.7525	0.7556	0.7656	Ave		0.7583				0.6		20.0			
2-Hexanone	0.4349 0.3767	0.4193	0.3752	0.3745	0.3792	Ave		0.3933			0.0500	6.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 6, 2017**

FROM: **J.SAMCHUCK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – VOC / 1,4-DIOXANE PCB HOMOLOGS / SELECT METALS**
MRC GROUNDWATER – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-77152-1

SAMPLES: 3 / Water / VOC

MRC-MW74A-032217 MRC-MW74B-032217 TB-032217

2 /Water / 1,4-Dioxane/Metals

MRC-MW74A-032217 MRC-MW74B-032217

3 /Water / PCB Homologs

MRC-MW74A-032217 MRC-MW74B-032217 MRC-MW74C-032217

*Sample was analyzed for chlorinated benzenes only.

OVERVIEW

The sample set for MRC GW, SDG 240-77152-1, consists of three (3) groundwater environmental samples and one (1) trip blank. Samples were analyzed for volatile organic compounds (VOC), 1,4-dioxane, polychlorinated biphenyl (PCB) homologs, and select metals. No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on March 22, 2017 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Methods 8260C (for VOC), 6020A (for metals), as well as EPA Method 522 (for 1,4-dioxane), and EPA Method 680 (for PCB homologs), analysis and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blanks, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard areas and recoveries, analyte identification, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- Detected results below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated (J).

- The following analyte was detected in the VOC method blank at the following maximum concentration:

Maximum

Analyte	Concentration	Action Level
Methylene chloride	1.92 ug/L(1)	19.2 ug/L

[1] – Maximum concentration detected in method blank associated with preparation batch 272601 affecting all samples.

- Action levels of 10x the maximum concentrations of the common laboratory contaminant methylene chloride were used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were considered in evaluating for blank contamination. Results for methylene chloride were qualified as non-detected (U) in the affected environmental samples.
- The following analytes were detected in the metals calibration blanks at the following maximum concentration:

Analyte	Maximum Concentration	RL (< or >)
Antimony	0.826 ug/L	<RL
Beryllium	0.097 ug/L	<RL
Cobalt	0.062 ug/L	<RL
Iron	20.7 ug/L	<RL
Lead	0.165 ug/L	<RL
Molybdenum	0.841 ug/L	<RL
Silver	0.024 ug/L	<RL
Barium	1.30 ug/L	<RL
Copper	0.653 ug/L	<RL
Zinc	6.55 ug/L	<RL

Detections less than the blank action level were qualified as nondetected (U). Dilution factors and sample aliquot were taken into consideration during the application of the blank action level.

NOTES

Non-detected results were reported to the MDL.

The laboratory case narrative report indicates that a VOC matrix spike (MS)/matrix spike duplicate (MSD) sample was not analyzed in batch 271291 due to an instrument malfunction. No validation action was necessary.

VOCs in sample MRC-MW43A-031517 were analyzed at a dilution factor of 250.

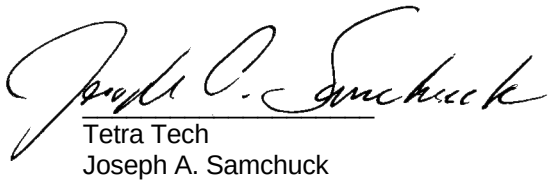
EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: Detected results below RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA “National Functional Guidelines for Superfund Organic Methods Data Review” (January 2017) and “National Functional Guidelines for Inorganic Superfund Methods Data Review” (January 2017). The text of this report has been formulated to

address only those problem areas affecting data quality.



Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

PROJ_NO: 07776	NSAMPLE	MRC-MW74A-032217			MRC-MW74B-032217			TB-032217		
SDG: 240-77152-1	LAB_ID	240-77152-2			240-77152-3			240-77152-1		
FRACTION: OV	SAMP_DATE	3/22/2017			3/22/2017			3/22/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.77	U		580	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		1.1	U		800	U		0.32	U	
1,1,2-TRICHLOROETHANE		1.1	U		850	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.4	U		1000	U		0.41	U	
1,1-DICHLOROETHANE		0.83	U		630	U		0.25	U	
1,1-DICHLOROETHENE		0.9	U		680	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.9	U		680	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.6	U		1200	U		0.47	U	
1,2-DIBROMOETHANE		0.77	U		580	U		0.23	U	
1,2-DICHLOROBENZENE		0.87	U		650	U		0.26	U	
1,2-DICHLOROETHANE		1	U		750	U		0.3	U	
1,2-DICHLOROPROPANE		1	U		750	U		0.3	U	
1,3-DICHLOROBENZENE		1.1	U		800	U		0.32	U	
1,4-DICHLOROBENZENE		0.77	U		580	U		0.23	U	
2-BUTANONE		3.4	U		2600	U		1	U	
2-HEXANONE		4.1	U		3100	U		1.2	U	
4-METHYL-2-PENTANONE		2.4	U		1800	U		0.71	U	
ACETONE		5.9	U		4400	U		1.8	U	
BENZENE		0.93	U		700	U		0.28	U	
BROMODICHLOROMETHANE		1	U		750	U		0.3	U	
BROMOFORM		1.4	U		1100	U		0.43	U	
BROMOMETHANE		1.4	U		1100	U		0.42	U	
CARBON DISULFIDE		1.1	U		850	U		0.34	U	
CARBON TETRACHLORIDE		1.2	U		880	U		0.35	U	
CHLOROBENZENE		1.1	U		800	U		0.32	U	
CHLORODIBROMOMETHANE		0.83	U		630	U		0.25	U	
CHLOROETHANE		1.4	U		1000	U		0.41	U	
CHLOROFORM		1	U		780	U		0.31	U	
CHLOROMETHANE		1.4	U		1100	U		0.43	U	
CIS-1,2-DICHLOROETHENE		2.8	J	P	750	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.87	U		650	U		0.26	U	
CYCLOHEXANE		1.5	U		1100	U		0.44	U	
DICHLORODIFLUOROMETHANE		1.7	U		1300	U		0.5	U	
ETHYLBENZENE		0.87	U		650	U		0.26	U	
ISOPROPYLBENZENE		0.7	U		530	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW74A-032217			MRC-MW74B-032217			TB-032217		
SDG: 240-77152-1	LAB_ID	240-77152-2			240-77152-3			240-77152-1		
FRACTION: OV	SAMP_DATE	3/22/2017			3/22/2017			3/22/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		4.8	U		3600	U		1.4	U	
METHYL CYCLOHEXANE		1.5	U		1100	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.9	U		680	U		0.27	U	
METHYLENE CHLORIDE		3.4	U	A	4000	U	A	0.53	U	
STYRENE		0.77	U		580	U		0.23	U	
TETRACHLOROETHENE		1	U		750	U		0.3	U	
TOLUENE		0.77	U		580	U		0.23	U	
TOTAL XYLENES		0.8	U		600	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.97	U		730	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		1	U		780	U		0.31	U	
TRICHLOROETHENE		84			38000			0.33	U	
TRICHLOROFLUOROMETHANE		1.7	U		1300	U		0.5	U	
VINYL CHLORIDE		1.5	U		1100	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW74A-032217			MRC-MW74B-032217		
SDG: 240-77152-1	LAB_ID	240-77152-2			240-77152-3		
FRACTION: OS	SAMP_DATE	3/22/2017			3/22/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.057	U		0.26		

PROJ_NO: 07776	NSAMPLE	MRC-MW74A-032217			MRC-MW74B-032217		
SDG: 240-77152-1	LAB_ID	240-77152-2			240-77152-3		
FRACTION: M	SAMP_DATE	3/22/2017			3/22/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.84	U	A	0.39	U	A
ARSENIC		0.86	J	P	0.46	J	P
BARIUM		57			46		
BERYLLIUM		0.4	U		0.4	U	
CADMIUM		0.31	U		0.31	U	
CHROMIUM		1.1	J	P	0.96	J	P
COBALT		1.7			3.2		
COPPER		2.3			1.6	U	A
LEAD		0.64	U	A	0.75	U	A
MERCURY		0.13	U		0.13	U	
MOLYBDENUM		1.3	U	A	0.51	U	
NICKEL		0.65	J	P	8.7		
SELENIUM		1	J	P	0.48	U	
SILVER		0.03	U		0.03	U	
THALLIUM		0.28	U		0.28	U	
VANADIUM		1	J	P	1.6	J	P
ZINC		13	U	A	54		

PROJ_NO: 07776	NSAMPLE	MRC-MW74A-032217			MRC-MW74B-032217			MRC-MW74C-032217		
SDG: 240-77152-1	LAB_ID	240-77152-2			240-77152-3			240-77152-4		
FRACTION: PCB	SAMP_DATE	3/22/2017			3/22/2017			3/22/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		0.076	U		0.071	U		0.073	U	
DICHLOROBIPHENYLS		0.0059	U		0.0055	U		0.0056	U	
HEPTACHLOROBIPHENYLS		0.033	U		0.031	U		0.031	U	
HEXACHLOROBIPHENYLS		0.016	U		0.015	U		0.016	U	
MONOCHLOROBIPHENYLS		0.0061	U		0.0057	U		0.0058	U	
NONACHLOROBIPHENYLS		0.053	U		0.05	U		0.051	U	
OCTACHLOROBIPHENYLS		0.041	U		0.039	U		0.04	U	
PENTACHLOROBIPHENYLS		0.015	U		0.014	J	P	0.015	U	
TETRACHLOROBIPHENYLS		0.014	U		0.013	U		0.014	U	
TRICHLOROBIPHENYLS		0.0071	U		0.0066	U		0.0068	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77152-1

SDG No.:

Client Sample ID: TB-032217 | Lab Sample ID: 240-77152-1

Matrix: Water | Lab File ID: UXJ1079.D

Analysis Method: 8260C | Date Collected: 03/22/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 18:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77152-1

SDG No.:

Client Sample ID: TB-032217 | Lab Sample ID: 240-77152-1

Matrix: Water | Lab File ID: UXJ1079.D

Analysis Method: 8260C | Date Collected: 03/22/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 18:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77152-1

SDG No.:

Client Sample ID: MRC-MW74A-032217 | Lab Sample ID: 240-77152-2

Matrix: Water | Lab File ID: UXJ1080.D

Analysis Method: 8260C | Date Collected: 03/22/2017 10:40

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 18:32

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.77	U	3.3	0.77
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U	3.3	1.1
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.4	U	3.3	1.4
79-00-5	1,1,2-Trichloroethane	1.1	U	3.3	1.1
75-34-3	1,1-Dichloroethane	0.83	U	3.3	0.83
75-35-4	1,1-Dichloroethene	0.90	U	3.3	0.90
120-82-1	1,2,4-Trichlorobenzene	0.90	U	3.3	0.90
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	6.7	1.6
106-93-4	Ethylene Dibromide	0.77	U	3.3	0.77
95-50-1	1,2-Dichlorobenzene	0.87	U	3.3	0.87
107-06-2	1,2-Dichloroethane	1.0	U	3.3	1.0
78-87-5	1,2-Dichloropropane	1.0	U	3.3	1.0
541-73-1	1,3-Dichlorobenzene	1.1	U	3.3	1.1
106-46-7	1,4-Dichlorobenzene	0.77	U	3.3	0.77
78-93-3	2-Butanone (MEK)	3.4	U	33	3.4
591-78-6	2-Hexanone	4.1	U	33	4.1
108-10-1	4-Methyl-2-pentanone (MIBK)	2.4	U	33	2.4
67-64-1	Acetone	5.9	U	33	5.9
71-43-2	Benzene	0.93	U	3.3	0.93
75-27-4	Dichlorobromomethane	1.0	U	3.3	1.0
75-25-2	Bromoform	1.4	U	3.3	1.4
74-83-9	Bromomethane	1.4	U	3.3	1.4
75-15-0	Carbon disulfide	1.1	U	3.3	1.1
56-23-5	Carbon tetrachloride	1.2	U	3.3	1.2
108-90-7	Chlorobenzene	1.1	U	3.3	1.1
75-00-3	Chloroethane	1.4	U	3.3	1.4
67-66-3	Chloroform	1.0	U	3.3	1.0
74-87-3	Chloromethane	1.4	U	3.3	1.4
156-59-2	cis-1,2-Dichloroethene	2.8	J	3.3	1.0
10061-01-5	cis-1,3-Dichloropropene	0.87	U	3.3	0.87
110-82-7	Cyclohexane	1.5	U	3.3	1.5
124-48-1	Chlorodibromomethane	0.83	U	3.3	0.83
75-71-8	Dichlorodifluoromethane	1.7	U	3.3	1.7
100-41-4	Ethylbenzene	0.87	U	3.3	0.87
98-82-8	Isopropylbenzene	0.70	U	3.3	0.70

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77152-1

SDG No.:

Client Sample ID: MRC-MW74A-032217 | Lab Sample ID: 240-77152-2

Matrix: Water | Lab File ID: UXJ1080.D

Analysis Method: 8260C | Date Collected: 03/22/2017 10:40

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 18:32

Soil Aliquot Vol: | Dilution Factor: 3.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	4.8	U	33	4.8
1634-04-4	Methyl tert-butyl ether	0.90	U	3.3	0.90
108-87-2	Methylcyclohexane	1.5	U	3.3	1.5
75-09-2	Methylene Chloride	3.4	B	3.3	1.8
100-42-5	Styrene	0.77	U	3.3	0.77
127-18-4	Tetrachloroethene	1.0	U	3.3	1.0
108-88-3	Toluene	0.77	U	3.3	0.77
156-60-5	trans-1,2-Dichloroethene	0.97	U	3.3	0.97
10061-02-6	trans-1,3-Dichloropropene	1.0	U	3.3	1.0
79-01-6	Trichloroethene	84		3.3	1.1
75-69-4	Trichlorofluoromethane	1.7	U	3.3	1.7
75-01-4	Vinyl chloride	1.5	U	3.3	1.5
1330-20-7	Xylenes, Total	0.80	U	6.7	0.80

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77152-1

SDG No.:

Client Sample ID: MRC-MW74B-032217 | Lab Sample ID: 240-77152-3

Matrix: Water | Lab File ID: UXJ1081.D

Analysis Method: 8260C | Date Collected: 03/22/2017 12:10

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 18:54

Soil Aliquot Vol: | Dilution Factor: 2500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	580	U	2500	580
79-34-5	1,1,2,2-Tetrachloroethane	800	U	2500	800
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1000	U	2500	1000
79-00-5	1,1,2-Trichloroethane	850	U	2500	850
75-34-3	1,1-Dichloroethane	630	U	2500	630
75-35-4	1,1-Dichloroethene	680	U	2500	680
120-82-1	1,2,4-Trichlorobenzene	680	U	2500	680
96-12-8	1,2-Dibromo-3-Chloropropane	1200	U	5000	1200
106-93-4	Ethylene Dibromide	580	U	2500	580
95-50-1	1,2-Dichlorobenzene	650	U	2500	650
107-06-2	1,2-Dichloroethane	750	U	2500	750
78-87-5	1,2-Dichloropropane	750	U	2500	750
541-73-1	1,3-Dichlorobenzene	800	U	2500	800
106-46-7	1,4-Dichlorobenzene	580	U	2500	580
78-93-3	2-Butanone (MEK)	2600	U	25000	2600
591-78-6	2-Hexanone	3100	U	25000	3100
108-10-1	4-Methyl-2-pentanone (MIBK)	1800	U	25000	1800
67-64-1	Acetone	4400	U	25000	4400
71-43-2	Benzene	700	U	2500	700
75-27-4	Dichlorobromomethane	750	U	2500	750
75-25-2	Bromoform	1100	U	2500	1100
74-83-9	Bromomethane	1100	U	2500	1100
75-15-0	Carbon disulfide	850	U	2500	850
56-23-5	Carbon tetrachloride	880	U	2500	880
108-90-7	Chlorobenzene	800	U	2500	800
75-00-3	Chloroethane	1000	U	2500	1000
67-66-3	Chloroform	780	U	2500	780
74-87-3	Chloromethane	1100	U	2500	1100
156-59-2	cis-1,2-Dichloroethene	750	U	2500	750
10061-01-5	cis-1,3-Dichloropropene	650	U	2500	650
110-82-7	Cyclohexane	1100	U	2500	1100
124-48-1	Chlorodibromomethane	630	U	2500	630
75-71-8	Dichlorodifluoromethane	1300	U	2500	1300
100-41-4	Ethylbenzene	650	U	2500	650
98-82-8	Isopropylbenzene	530	U	2500	530

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77152-1

SDG No.:

Client Sample ID: MRC-MW74B-032217 | Lab Sample ID: 240-77152-3

Matrix: Water | Lab File ID: UXJ1081.D

Analysis Method: 8260C | Date Collected: 03/22/2017 12:10

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 18:54

Soil Aliquot Vol: | Dilution Factor: 2500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	3600	U	25000	3600
1634-04-4	Methyl tert-butyl ether	680	U	2500	680
108-87-2	Methylcyclohexane	1100	U	2500	1100
75-09-2	Methylene Chloride	4000	B	2500	1300
100-42-5	Styrene	580	U	2500	580
127-18-4	Tetrachloroethene	750	U	2500	750
108-88-3	Toluene	580	U	2500	580
156-60-5	trans-1,2-Dichloroethene	730	U	2500	730
10061-02-6	trans-1,3-Dichloropropene	780	U	2500	780
79-01-6	Trichloroethene	38000		2500	830
75-69-4	Trichlorofluoromethane	1300	U	2500	1300
75-01-4	Vinyl chloride	1100	U	2500	1100
1330-20-7	Xylenes, Total	600	U	5000	600

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-132

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77152-1

SDG No.:

Client Sample ID: MRC-MW74A-032217 | Lab Sample ID: 240-77152-2

Matrix: Water | Lab File ID: Z24494_23.D

Analysis Method: 522 | Date Collected: 03/22/2017 10:40

Extract. Method: 3535A | Date Extracted: 03/28/2017 17:53

Sample wt/vol: 100(mL) | Date Analyzed: 03/29/2017 19:36

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115280 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	100		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77152-1

SDG No.:

Client Sample ID: MRC-MW74B-032217 | Lab Sample ID: 240-77152-3

Matrix: Water | Lab File ID: Z24494_24.D

Analysis Method: 522 | Date Collected: 03/22/2017 12:10

Extract. Method: 3535A | Date Extracted: 03/28/2017 17:53

Sample wt/vol: 100(mL) | Date Analyzed: 03/29/2017 19:53

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115280 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	103		46-130

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77152-1

SDG No.:

Client Sample ID: MRC-MW74A-032217 | Lab Sample ID: 240-77152-2

Matrix: Water | Lab File ID: xc3109.D

Analysis Method: 680 | Date Collected: 03/22/2017 10:40

Extract. Method: 680 | Date Extracted: 03/27/2017 12:57

Sample wt/vol: 921.6(mL) | Date Analyzed: 03/31/2017 14:27

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 474122 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.033	U	0.33	0.033
26601-64-9	Hexachlorobiphenyl	0.016	U	0.22	0.016
53742-07-7	Nonachlorobiphenyl	0.053	U	0.54	0.053
55722-26-4	Octachlorobiphenyl	0.041	U	0.33	0.041
27323-18-8	Monochlorobiphenyl	0.0061	U	0.11	0.0061
2051-24-3	DCB Decachlorobiphenyl	0.076	U	0.54	0.076
25512-42-9	Dichlorobiphenyl	0.0059	U	0.11	0.0059
25429-29-2	Pentachlorobiphenyl	0.015	U	0.22	0.015
26914-33-0	Tetrachlorobiphenyl	0.014	U	0.22	0.014
25323-68-6	Trichlorobiphenyl	0.0071	U	0.11	0.0071

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	82		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77152-1

SDG No.:

Client Sample ID: MRC-MW74B-032217 | Lab Sample ID: 240-77152-3

Matrix: Water | Lab File ID: xc3110.D

Analysis Method: 680 | Date Collected: 03/22/2017 12:10

Extract. Method: 680 | Date Extracted: 03/27/2017 12:57

Sample wt/vol: 982.4(mL) | Date Analyzed: 03/31/2017 14:56

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 474122 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.031	U	0.31	0.031
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.050	U	0.51	0.050
55722-26-4	Octachlorobiphenyl	0.039	U	0.31	0.039
27323-18-8	Monochlorobiphenyl	0.0057	U	0.10	0.0057
2051-24-3	DCB Decachlorobiphenyl	0.071	U	0.51	0.071
25512-42-9	Dichlorobiphenyl	0.0055	U	0.10	0.0055
25429-29-2	Pentachlorobiphenyl	0.014	J	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0066	U	0.10	0.0066

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	85		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77152-1

SDG No.:

Client Sample ID: MRC-MW74C-032217 | Lab Sample ID: 240-77152-4

Matrix: Water | Lab File ID: xc3111.D

Analysis Method: 680 | Date Collected: 03/22/2017 14:15

Extract. Method: 680 | Date Extracted: 03/27/2017 12:57

Sample wt/vol: 958.8(mL) | Date Analyzed: 03/31/2017 15:25

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 474122 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.031	U	0.31	0.031
26601-64-9	Hexachlorobiphenyl	0.016	U	0.21	0.016
53742-07-7	Nonachlorobiphenyl	0.051	U	0.52	0.051
55722-26-4	Octachlorobiphenyl	0.040	U	0.31	0.040
27323-18-8	Monochlorobiphenyl	0.0058	U	0.10	0.0058
2051-24-3	DCB Decachlorobiphenyl	0.073	U	0.52	0.073
25512-42-9	Dichlorobiphenyl	0.0056	U	0.10	0.0056
25429-29-2	Pentachlorobiphenyl	0.015	U	0.21	0.015
26914-33-0	Tetrachlorobiphenyl	0.014	U	0.21	0.014
25323-68-6	Trichlorobiphenyl	0.0068	U	0.10	0.0068

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	88		25-113

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW74A-032217 Lab Sample ID: 240-77152-2

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG ID.:

Matrix: Water Date Sampled: 03/22/2017 10:40

Reporting Basis: WET Date Received: 03/23/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW74A-032217 Lab Sample ID: 240-77152-2

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG ID.:

Matrix: Water Date Sampled: 03/22/2017 10:40

Reporting Basis: WET Date Received: 03/23/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.84	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	0.86	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	57	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	1.7	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	1.1	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	2.3	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	1.3	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	0.65	2.0	0.28	ug/L	J		1	6020A
7439-92-1	Lead	0.64	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	1.0	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	1.0	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	13	20	6.2	ug/L	J	B	1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW74B-032217 Lab Sample ID: 240-77152-3

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG ID.:

Matrix: Water Date Sampled: 03/22/2017 12:10

Reporting Basis: WET Date Received: 03/23/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW74B-032217 Lab Sample ID: 240-77152-3

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG ID.:

Matrix: Water Date Sampled: 03/22/2017 12:10

Reporting Basis: WET Date Received: 03/23/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.39	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	0.46	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	46	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	3.2	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.96	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	1.6	2.0	0.36	ug/L	J	B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	8.7	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.75	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	1.6	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	54	20	6.2	ug/L		B	1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

APPENDIX C

SUPPORT DOCUMENTATION

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-77152-1

Job Description: MRC 2017 GW

For:
Tetra Tech, Inc.
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

Attention: Chris Pike



Approved for release.
John McFadden
Project Manager I
4/6/2017 1:01 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
04/06/2017

cc: Tony Apanavage
Samantha Brenner
Mike Martin
Final Data Tracking

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

3.4/3.1

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: S. Cameron	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41092-17889.1
Client Contact: Mr. Stuart Cameron	Phone: (703) 342-8389	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: (301)528-3002	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Block E, Middle River Complex, MD	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	VOCs 8260C	PCB Homologs 532	1,4-Dioxane 8270A	Total Metals 6020A	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	I	A	D		
TB-032217	—	—	—	W	N	N	2					
MRC-MW74A-032217	3/22/17	1040	G	W	N	N	3	2	2	1		
MRC-MW74B-032217	3/22/17	1210	G	W	N	N	3	2	2	1		
MRC-MW74C-032217	3/22/17	1415	G	W	N	N		2				

240-77152 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3-22-17 / 1532	Tetra Tech	3/22-17 1522		
2		3/22/17 1600	TA		3/22/17 1650	TA
3		Date/Time:	Company	Received by:	Date/Time: 03/23/17 920	Company TAC

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 77152**
Canton Facility

Client Tetra Tech Site Name MRC | Cooler unpacked by: DSD

Cooler Received on 03/23/17 Opened on 03/23/17

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client ~~Cooler~~ Box Other

Packing material used: ~~Bubble Wrap~~ Foam ~~Plastic Bag~~ None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 3.4 °C Corrected Cooler Temp. 3.1 °C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? (Yes) No
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Are these work share samples? Yes (No)
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? (Yes) No
13. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # B630301VB (Yes) No
15. Was a LL Hg or Me Hg trip blank present? Yes (No)

Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES | Samples processed by:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-77152-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 522 1.4 Dioxane analysis was performed at TestAmerica Burlington Laboratory. The 680 PCB analysis was performed at TestAmerica Savannah Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 3/23/2017 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1º C.

1,4-DIOXANE
Samples MRC-MW74A-032217 (240-77152-2) and MRC-MW74B-032217 (240-77152-3) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 03/28/2017 and analyzed on 03/29/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples TB-032217 (240-77152-1), MRC-MW74A-032217 (240-77152-2) and MRC-MW74B-032217 (240-77152-3) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/30/2017.

Methylene Chloride was detected in method blank MB 240-272601/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MRC-MW74A-032217 (240-77152-2)[3.33X] and MRC-MW74B-032217 (240-77152-3)[2500X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)
Samples MRC-MW74A-032217 (240-77152-2), MRC-MW74B-032217 (240-77152-3) and MRC-MW74C-032217 (240-77152-4) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 03/27/2017 and analyzed on 03/31/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)
Samples MRC-MW74A-032217 (240-77152-2) and MRC-MW74B-032217 (240-77152-3) were analyzed for total recoverable metals

(ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 03/24/2017 and analyzed on 03/27/2017.

Barium, Copper, Iron, Manganese and Zinc were detected in method blank MB 240-271839/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY

Samples MRC-MW74A-032217 (240-77152-2) and MRC-MW74B-032217 (240-77152-3) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 03/24/2017 and analyzed on 03/25/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-032217	240-77152-1	101	94	100	101
MRC-MW74A-032217	240-77152-2	93	88	94	94
MRC-MW74B-032217	240-77152-3	101	97	100	101
	MB 240-272601/6	101	95	101	102
	LCS 240-272601/4	98	99	100	101
	240-77041-E-2 MS	100	97	99	100
	240-77041-H-2 MSD	98	97	99	100

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1059.D

Lab ID: LCS 240-272601/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.85	99	79-133	
1,1,2,2-Tetrachloroethane	10.0	9.75	97	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.1	101	65-151	
1,1,2-Trichloroethane	10.0	9.88	99	80-120	
1,1-Dichloroethane	10.0	9.27	93	77-121	
1,1-Dichloroethene	10.0	9.80	98	70-141	
1,2,4-Trichlorobenzene	10.0	8.97	90	53-137	
1,2-Dibromo-3-Chloropropane	10.0	10.3	103	46-140	
Ethylene Dibromide	10.0	9.32	93	80-126	
1,2-Dichlorobenzene	10.0	9.25	93	80-120	
1,2-Dichloroethane	10.0	9.45	95	76-130	
1,2-Dichloropropane	10.0	9.54	95	79-121	
1,3-Dichlorobenzene	10.0	9.18	92	80-120	
1,4-Dichlorobenzene	10.0	9.14	91	80-120	
2-Butanone (MEK)	20.0	16.1	80	54-122	
2-Hexanone	20.0	18.0	90	56-124	
4-Methyl-2-pentanone (MIBK)	20.0	18.9	95	60-131	
Acetone	20.0	11.0	55	46-120	
Benzene	10.0	9.41	94	80-120	
Dichlorobromomethane	10.0	9.69	97	76-125	
Bromoform	10.0	9.04	90	52-157	
Bromomethane	10.0	8.35	84	24-160	
Carbon disulfide	10.0	10.0	100	58-160	
Carbon tetrachloride	10.0	10.0	100	69-149	
Chlorobenzene	10.0	9.35	94	80-120	
Chloroethane	10.0	8.58	86	24-147	
Chloroform	10.0	9.36	94	80-120	
Chloromethane	10.0	7.74	77	50-135	
cis-1,2-Dichloroethene	10.0	9.67	97	80-120	
cis-1,3-Dichloropropene	10.0	9.94	99	75-120	
Cyclohexane	10.0	11.5	115	66-135	
Chlorodibromomethane	10.0	10.1	101	68-131	
Dichlorodifluoromethane	10.0	7.69	77	32-140	
Ethylbenzene	10.0	9.53	95	80-120	
Isopropylbenzene	10.0	9.42	94	80-120	
Methyl acetate	20.0	19.0	95	65-124	
Methyl tert-butyl ether	10.0	9.89	99	75-126	
Methylcyclohexane	10.0	10.9	109	71-122	
Methylene Chloride	10.0	11.2	112	68-136	
Styrene	10.0	9.37	94	80-120	
Tetrachloroethene	10.0	9.64	96	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1059.D

Lab ID: LCS 240-272601/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	10.0	9.36	94	80-121	
trans-1,2-Dichloroethene	10.0	9.48	95	80-123	
trans-1,3-Dichloropropene	10.0	9.49	95	65-120	
Trichloroethene	10.0	9.53	95	80-122	
Trichlorofluoromethane	10.0	8.14	81	56-161	
Vinyl chloride	10.0	7.61	76	60-129	
Xylenes, Total	20.0	18.9	95	80-120	
m-Xylene & p-Xylene	10.0	9.43	94	80-120	
o-Xylene	10.0	9.50	95	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1084.D

Lab ID: 240-77041-E-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Trichloroethene	10.0	0.33 U	8.80	88	58-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1085.D

Lab ID: 240-77041-H-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Trichloroethene	10.0	9.63	96	9	35	58-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab File ID: UXJ1062.D Lab Sample ID: MB 240-272601/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX11 Date Analyzed: 03/30/2017 11:44

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-272601/4	UXJ1059.D	03/30/2017 10:36
TB-032217	240-77152-1	UXJ1079.D	03/30/2017 18:09
MRC-MW74A-032217	240-77152-2	UXJ1080.D	03/30/2017 18:32
MRC-MW74B-032217	240-77152-3	UXJ1081.D	03/30/2017 18:54
	240-77041-E-2 MS	UXJ1084.D	03/30/2017 20:02
	240-77041-H-2 MSD	UXJ1085.D	03/30/2017 20:25

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab File ID: BFB70329.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX11 BFB Injection Time: 09:21

Analysis Batch No.: 272388

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	43.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	97.7	
175	5.0 - 9.0 % of mass 174	6.7	(6.9) 1
176	95.0 - 101.0 % of mass 174	95.7	(97.9) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272388/2	UXJ1042.D	03/29/2017	09:53
	STD8260 240-272388/3	UXJ1043.D	03/29/2017	10:15
	STD8260 240-272388/4	UXJ1044.D	03/29/2017	10:38
	STD8260 240-272388/5	UXJ1045.D	03/29/2017	11:01
	STD8260 240-272388/6	UXJ1046.D	03/29/2017	11:24
	STD8260 240-272388/7	UXJ1047.D	03/29/2017	11:46
	ICV 240-272388/15	UXJ1055.D	03/29/2017	14:47
	ICV 240-272388/14	UXJ1056.D	03/29/2017	15:09

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab File ID: BFB70330.D BFB Injection Date: 03/30/2017

Instrument ID: A3UX11 BFB Injection Time: 09:33

Analysis Batch No.: 272601

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	44.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	97.2	
175	5.0 - 9.0 % of mass 174	6.8	(7.0) 1
176	95.0 - 101.0 % of mass 174	93.7	(96.4) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-272601/2	UXJ1058.D	03/30/2017	10:13
	LCS 240-272601/4	UXJ1059.D	03/30/2017	10:36
	CCV 240-272601/3	UXJ1060.D	03/30/2017	10:58
	MB 240-272601/6	UXJ1062.D	03/30/2017	11:44
TB-032217	240-77152-1	UXJ1079.D	03/30/2017	18:09
MRC-MW74A-032217	240-77152-2	UXJ1080.D	03/30/2017	18:32
MRC-MW74B-032217	240-77152-3	UXJ1081.D	03/30/2017	18:54
	240-77041-E-2 MS	UXJ1084.D	03/30/2017	20:02
	240-77041-H-2 MSD	UXJ1085.D	03/30/2017	20:25

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Sample No.: STD8260 240-272388/4 Date Analyzed: 03/29/2017 10:38

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ1044.D Heated Purge: (Y/N) N

Calibration ID: 39174

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		838554	5.04	622679	7.70	302532	9.94
UPPER LIMIT		1677108	5.54	1245358	8.20	605064	10.44
LOWER LIMIT		419277	4.54	311340	7.20	151266	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272388/15		836158	5.04	620506	7.70	304045	9.94
ICV 240-272388/14		897373	5.04	658178	7.70	317428	9.94
CCVIS 240-272601/2		892078	5.04	663201	7.70	322973	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Sample No.: CCVIS 240-272601/2 Date Analyzed: 03/30/2017 10:13

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ1058.D Heated Purge: (Y/N) N

Calibration ID: 39177

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		892078	5.04	663201	7.70	322973	9.94
UPPER LIMIT		1784156	5.54	1326402	8.20	645946	10.44
LOWER LIMIT		446039	4.54	331601	7.20	161487	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-272601/4		888251	5.04	662835	7.70	326474	9.94
CCV 240-272601/3		861156	5.04	649535	7.70	314570	9.94
MB 240-272601/6		830598	5.04	624607	7.70	300153	9.94
240-77152-1	TB-032217	855129	5.04	643458	7.70	309802	9.94
240-77152-2	MRC-MW74A-032217	915578	5.04	678988	7.70	327433	9.94
240-77152-3	MRC-MW74B-032217	859641	5.04	643229	7.70	304900	9.94
240-77041-E-2 MS		885034	5.04	665138	7.70	324064	9.94
240-77041-H-2 MSD		873703	5.04	653954	7.70	319198	9.94

FB = Fluorobenzene
FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4
Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77152-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272388/7	UXJ1047.D
Level 2	STD8260 240-272388/6	UXJ1046.D
Level 3	STD8260 240-272388/5	UXJ1045.D
Level 4	STD8260 240-272388/4	UXJ1044.D
Level 5	STD8260 240-272388/3	UXJ1043.D
Level 6	STD8260 240-272388/2	UXJ1042.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1603 0.1921	0.1584	0.1613	0.1577	0.2044	Ave		0.1724			0.1000	11.9		20.0			
Chloromethane	0.2491 0.2109	0.2162	0.2162	0.2125	0.2167	Ave		0.2203			0.1000	6.5		20.0			
Vinyl chloride	0.2103 0.2025	0.2093	0.2060	0.2048	0.2103	Ave		0.2072			0.1000	1.6		20.0			
Butadiene	0.2056 0.1636	0.2480	0.1949	0.1967	0.1922	Ave		0.2001				13.7		20.0			
Bromomethane	0.1553 0.0933	0.1256	0.1058	0.0931	0.0957	Lin1	0.0644	0.0913			0.0500				0.9990		0.9900
Chloroethane	0.0971 0.1004	0.0998	0.1019	0.1022	0.1044	Ave		0.1010			0.0500	2.5		20.0			
Dichlorofluoromethane	0.3749 0.2550	0.3438	0.2709	0.2723	0.2754	Ave		0.2987				16.2		20.0			
Trichlorofluoromethane	0.1860 0.2357	0.2264	0.2197	0.2191	0.2346	Ave		0.2202			0.1000	8.3		20.0			
Ethyl ether	0.2372 0.2220	0.2254	0.2359	0.2329	0.2374	Ave		0.2318				2.8		20.0			
Acrolein	0.0267 0.0275	0.0209	0.0286	0.0301	0.0297	Ave		0.0272				12.3		20.0			
1,1-Dichloroethene	0.2239 0.2146	0.2383	0.2370	0.2366	0.2233	Ave		0.2290			0.1000	4.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1418 0.1374	0.1710	0.1400	0.1336	0.1320	Ave		0.1426			0.0500	10.1		20.0			
Acetone	0.0899 0.0698	0.0697	0.0777	0.0559	0.0734	Ave		0.0728			0.0100	15.3		20.0			
Iodomethane	0.2762 0.2939	0.3233	0.3405	0.3400	0.3239	Ave		0.3163				8.2		20.0			
Carbon disulfide	0.6049 0.6014	0.6235	0.6432	0.6631	0.6332	Ave		0.6282			0.1000	3.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77152-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1541 0.2155	0.1768	0.1947	0.2032	0.2137	Ave		0.1930				12.3		20.0			
Methyl acetate	0.1502 0.1439	0.1483	0.1486	0.1498	0.1534	Ave		0.1490			0.1000	2.1		20.0			
Methylene Chloride	0.4225 0.2443	0.3330	0.2888	0.2680	0.2558	Lin1	0.1884	0.2432			0.1000				1.0000		0.9900
2-Methyl-2-propanol	0.0133 0.0126	0.0144	0.0137	0.0132	0.0136	Ave		0.0135				4.2		20.0			
Acrylonitrile	0.0804 0.0744	0.0752	0.0758	0.0762	0.0786	Ave		0.0768				3.0		20.0			
Methyl tert-butyl ether	0.6853 0.6998	0.6812	0.7122	0.7138	0.7495	Ave		0.7070			0.1000	3.5		20.0			
trans-1,2-Dichloroethene	0.3541 0.2770	0.2899	0.2860	0.2800	0.2806	Ave		0.2946			0.1000	10.0		20.0			
Hexane	0.0647 0.0606	0.0855	0.0650	0.0582	0.0615	Ave		0.0659				15.0		20.0			
1,1-Dichloroethane	0.4828 0.4698	0.4605	0.4785	0.4697	0.4675	Ave		0.4715			0.2000	1.7		20.0			
Vinyl acetate	0.4885 0.4256	0.4150	0.4259	0.4249	0.4476	Ave		0.4379				6.2		20.0			
cis-1,2-Dichloroethene	0.3086 0.3045	0.2831	0.3157	0.3080	0.3059	Ave		0.3043			0.1000	3.6		20.0			
2,2-Dichloropropane	0.2969 0.2429	0.2849	0.2880	0.2767	0.2713	Ave		0.2768				6.8		20.0			
2-Butanone (MEK)	0.0856 0.1002	0.0900	0.0976	0.0889	0.1087	Ave		0.0952			0.0100	9.1		20.0			
Chlorobromomethane	0.1424 0.1414	0.1351	0.1455	0.1402	0.1415	Ave		0.1410				2.4		20.0			
Tetrahydrofuran	0.0584 0.0535	0.0541	0.0553	0.0558	0.0577	Ave		0.0558				3.5		20.0			
Chloroform	0.4596 0.4385	0.4269	0.4516	0.4355	0.4415	Ave		0.4423			0.2000	2.6		20.0			
1,1,1-Trichloroethane	0.3520 0.3112	0.3333	0.3329	0.3290	0.3267	Ave		0.3308			0.1000	4.0		20.0			
Cyclohexane	0.3226 0.3693	0.4157	0.3644	0.3648	0.3705	Ave		0.3679			0.1000	8.0		20.0			
1,1-Dichloropropene	0.3531 0.3655	0.3433	0.3642	0.3628	0.3640	Ave		0.3588				2.5		20.0			
Carbon tetrachloride	0.2696 0.2833	0.2771	0.2852	0.2897	0.2925	Ave		0.2829			0.1000	3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77152-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0054 0.0062	0.0056	0.0058	0.0059	0.0070	Ave		0.0060				9.7		20.0			
1,2-Dichloroethane	0.3038 0.3081	0.3005	0.3092	0.3092	0.3114	Ave		0.3070			0.1000	1.3		20.0			
Benzene	1.2544 1.1967	1.1474	1.1805	1.1846	1.1868	Ave		1.1917			0.5000	2.9		20.0			
n-Heptane	0.0588 0.0618	0.0778	0.0537	0.0525	0.0574	Ave		0.0603				15.2		20.0			
Trichloroethene	0.3031 0.2996	0.2845	0.2958	0.3029	0.3024	Ave		0.2980			0.1500	2.4		20.0			
Methylcyclohexane	0.3651 0.3604	0.4206	0.3558	0.3398	0.3500	Ave		0.3653			0.1000	7.8		20.0			
1,2-Dichloropropane	0.2753 0.2798	0.2700	0.2777	0.2773	0.2807	Ave		0.2768			0.1000	1.4		20.0			
Dibromomethane	0.1511 0.1376	0.1410	0.1479	0.1450	0.1454	Ave		0.1447				3.3		20.0			
1,4-Dioxane	0.0006 0.0014	0.0012	0.0017	0.0016	0.0017	Qua	-0.035	0.0020	-0.000001						0.9990		0.9900
Dichlorobromomethane	0.3248 0.3256	0.3060	0.3186	0.3193	0.3277	Ave		0.3203			0.1500	2.5		20.0			
2-Chloroethyl vinyl ether	0.1488 0.1525	0.1435	0.1598	0.1595	0.1611	Ave		0.1542				4.6		20.0			
cis-1,3-Dichloropropene	0.3667 0.4576	0.3819	0.4293	0.4377	0.4543	Ave		0.4213			0.1500	9.1		20.0			
4-Methyl-2-pentanone (MIBK)	0.1897 0.1912	0.1791	0.1957	0.1952	0.2115	Ave		0.1937			0.0500	5.5		20.0			
Toluene	1.7741 1.7554	1.5882	1.7205	1.6569	1.7145	Ave		1.7016			0.4000	4.0		20.0			
trans-1,3-Dichloropropene	0.4332 0.5340	0.4332	0.4862	0.5054	0.5330	Ave		0.4875			0.1000	9.4		20.0			
Ethyl methacrylate	0.4609 0.4782	0.4371	0.4723	0.4791	0.5093	Ave		0.4728				5.0		20.0			
1,1,2-Trichloroethane	0.2737 0.2926	0.2812	0.3069	0.2998	0.3074	Ave		0.2936			0.1000	4.7		20.0			
Tetrachloroethene	0.3257 0.3259	0.3075	0.3204	0.3167	0.3259	Ave		0.3204			0.1500	2.3		20.0			
1,3-Dichloropropane	0.5508 0.5441	0.4982	0.5436	0.5418	0.5561	Ave		0.5391				3.8		20.0			
2-Hexanone	0.1763 0.2095	0.1515	0.2001	0.1850	0.2254	Ave		0.1913			0.0500	13.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77152-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2250 0.3372	0.2446	0.2890	0.3106	0.3252	Ave		0.2886				15.6		20.0			
Ethylene Dibromide	0.3157 0.2835	0.2981	0.2940	0.2886	0.2900	Ave		0.2950				3.8		20.0			
Chlorobenzene	1.0772 1.0502	0.9549	1.0420	1.0189	1.0365	Ave		1.0299			0.3000	4.0		20.0			
1,1,1,2-Tetrachloroethane	0.3328 0.3558	0.3181	0.3487	0.3520	0.3500	Ave		0.3429				4.2		20.0			
Ethylbenzene	0.5781 0.5679	0.5240	0.5615	0.5550	0.5641	Ave		0.5585				3.3		20.0			
m-Xylene & p-Xylene	0.7120 0.6936	0.6416	0.6926	0.6836	0.7009	Ave		0.6874				3.5		20.0			
o-Xylene	0.6710 0.6584	0.6124	0.6755	0.6620	0.6659	Ave		0.6575				3.5		20.0			
Styrene	1.1948 1.2052	1.0973	1.2038	1.1677	1.2000	Ave		1.1781			0.3000	3.6		20.0			
Bromoform	0.1088 0.2086	0.1276	0.1561	0.1793	0.2007	Lin1	-0.138	0.2067			0.1000				0.9970		0.9900
Isopropylbenzene	1.5677 1.6128	1.4753	1.5937	1.5519	1.5881	Ave		1.5649			0.1000	3.1		20.0			
1,1,2,2-Tetrachloroethane	0.6626 0.6723	0.6522	0.6683	0.6985	0.7133	Ave		0.6779			0.3000	3.4		20.0			
Bromobenzene	0.9267 0.9186	0.8563	0.8967	0.8864	0.9068	Ave		0.8986				2.8		20.0			
1,2,3-Trichloropropane	0.3173 0.2076	0.2047	0.2131	0.2102	0.2217	Ave		0.2291				19.0		20.0			
trans-1,4-Dichloro-2-butene	0.1101 0.1501	0.1042	0.0985	0.0982	0.1305	Ave		0.1153				18.1		20.0			
N-Propylbenzene	0.9053 0.8876	0.8180	0.8521	0.8411	0.8542	Ave		0.8597				3.7		20.0			
2-Chlorotoluene	0.8878 0.7638	0.7625	0.7958	0.7737	0.7491	Ave		0.7888				6.5		20.0			
1,3,5-Trimethylbenzene	2.4481 2.5421	2.3447	2.4454	2.4236	2.4490	Ave		2.4421				2.6		20.0			
4-Chlorotoluene	0.8789 0.8143	0.8094	0.7888	0.7925	0.7814	Ave		0.8109				4.4		20.0			
tert-Butylbenzene	2.1204 2.1411	2.0019	2.0719	2.0467	2.0821	Ave		2.0774				2.4		20.0			
1,2,4-Trimethylbenzene	2.6319 2.6041	2.4369	2.4811	2.4859	2.5064	Ave		2.5244				3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77152-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.7503 2.8029	2.5631	2.6283	2.6548	2.6674	Ave		2.6778				3.2		20.0			
1,3-Dichlorobenzene	1.5265 1.4672	1.3965	1.5191	1.4340	1.4524	Ave		1.4660			0.6000	3.4		20.0			
4-Isopropyltoluene	2.3033 2.4239	2.2080	2.2762	2.2933	2.3300	Ave		2.3058				3.1		20.0			
1,4-Dichlorobenzene	1.5825 1.5295	1.4512	1.5325	1.4911	1.4999	Ave		1.5145			0.5000	2.9		20.0			
n-Butylbenzene	1.9521 1.8489	1.7283	1.8047	1.7726	1.7963	Ave		1.8172				4.2		20.0			
1,2-Dichlorobenzene	1.4123 1.3422	1.2790	1.3396	1.3381	1.3553	Ave		1.3444			0.4000	3.2		20.0			
1,2-Dibromo-3-Chloropropane	0.0941 0.1214	0.1100	0.1123	0.1225	0.1306	Ave		0.1151			0.0500	11.1		20.0			
1,2,4-Trichlorobenzene	0.7459 0.7159	0.6811	0.6942	0.6932	0.6843	Ave		0.7024			0.2000	3.5		20.0			
Hexachlorobutadiene	0.3422 0.3089	0.3100	0.3209	0.3128	0.3015	Ave		0.3161				4.5		20.0			
Naphthalene	1.6223 1.5604	1.4977	1.5542	1.5956	1.6680	Ave		1.5830				3.7		20.0			
1,2,3-Trichlorobenzene	0.5850 0.5964	0.5669	0.5945	0.5957	0.5961	Ave		0.5891				2.0		20.0			
Dibromofluoromethane (Surr)	0.2660 0.2297	0.2382	0.2290	0.2327	0.2318	Ave		0.2379				5.9		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2934 0.2612	0.2774	0.2726	0.2714	0.2754	Ave		0.2752				3.8		20.0			
Toluene-d8 (Surr)	1.4632 1.4815	1.4274	1.4333	1.4143	1.4441	Ave		1.4440				1.7		20.0			
4-Bromofluorobenzene (Surr)	0.5365 0.4571	0.4569	0.4798	0.4735	0.4735	Ave		0.4796				6.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77152-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272388/7	UXJ1047.D
Level 2	STD8260 240-272388/6	UXJ1046.D
Level 3	STD8260 240-272388/5	UXJ1045.D
Level 4	STD8260 240-272388/4	UXJ1044.D
Level 5	STD8260 240-272388/3	UXJ1043.D
Level 6	STD8260 240-272388/2	UXJ1042.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	13296 681734	25998	67562	132260	352869	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	20660 748481	35482	90537	178218	374087	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	17443 718830	34348	86257	171711	362930	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	17049 580456	40706	81613	164912	331755	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Lin1	12876 331051	20623	44303	78110	165103	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	8051 356489	16381	42659	85731	180239	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	31089 905166	56424	113439	228322	475355	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	15424 836479	37153	92015	183698	405005	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	19671 787914	36998	98784	195316	409804	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	11079 487144	17152	59928	126023	256546	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	18569 761560	39115	99265	198436	385375	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	11760 487681	28069	58618	112028	227779	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Ave	14913 495754	22885	65104	93795	253482	2.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	22905 1043218	53066	142621	285110	559031	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	50170 2134423	102336	269375	556068	1092988	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	12781 764823	29024	81548	170411	368885	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77152-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	62291 2553158	121736	311086	628065	1323531	5.00 200	10.0	25.0	50.0	100
Methylene Chloride	FB	Lin1	35038 867017	54658	120966	224721	441439	1.00 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	10998 448821	23576	57203	110912	234691	10.0 400	20.0	50.0	100	200
Acrylonitrile	FB	Ave	66675 2641918	123389	317322	639099	1357394	10.0 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	56837 2483677	111815	298269	598561	1293685	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	29368 983202	47577	119771	234766	484390	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	5363 215055	14028	27222	48795	106201	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	40042 1667387	75589	200413	393892	806933	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	40516 1510638	68125	178356	356338	772583	1.00 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	25593 1080588	46474	132224	258267	528016	1.00 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	24626 862078	46771	120617	232041	468203	1.00 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	14191 711447	29547	81731	149145	375166	2.00 80.0	4.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	11807 501840	22182	60954	117536	244293	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	9681 379736	17749	46304	93601	199297	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	38116 1556243	70078	189135	365157	761966	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	29189 1104352	54709	139406	275890	563848	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	26757 1310784	68239	152601	305938	639521	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	29286 1297288	56343	152512	304200	628294	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	22357 1005420	45485	119435	242928	504873	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	CBNZ d5	Ave	8338 402113	17056	44497	91571	224437	25.0 1000	50.0	125	250	500
1,2-Dichloroethane	FB	Ave	25194 1093528	49329	129482	259275	537398	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77152-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	104033 4247251	188332	494386	993388	2048384	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	4876 219360	12774	22508	44066	98987	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	25133 1063441	46700	123863	253972	521953	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	30277 1279075	69040	149011	284955	604141	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	22831 992918	44317	116287	232565	484566	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	12534 488277	23143	61938	121607	250922	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Qua	927 100656	3813	13831	27131	58731	20.0 800	40.0	100	200	400
Dichlorobromomethane	FB	Ave	26937 1155511	50230	133417	267771	565671	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	24680 1082725	47093	133883	267431	556035	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	30410 1624017	62692	179807	367076	784119	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	31457 1357301	58782	163899	327362	730086	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	109145 4567124	194889	530832	1031697	2191414	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	26651 1389302	53153	150012	314702	681304	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	28353 1244128	53639	145715	298342	650926	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	16836 761137	34504	94674	186671	392928	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	20040 847928	37727	98861	197186	416588	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	33887 1415488	61134	167708	337348	710712	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	21690 1089861	37185	123466	230342	576277	2.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	13844 877283	30011	89177	193423	415610	1.00 40.0	2.00	5.00	10.0	20.0
Ethylene Dibromide	CBNZ d5	Ave	19424 737488	36584	90700	179729	370604	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	66269 2732295	117180	321475	634459	1324749	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77152-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	20472 925643	39029	107582	219166	447332	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	35568 1477483	64300	173234	345613	721042	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	43805 1804637	78729	213687	425662	895841	1.00 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBNZ d5	Ave	41282 1713004	75141	208399	412193	851108	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	73508 3135561	134644	371410	727088	1533742	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Lin1	6693 542742	15653	48159	111629	256548	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	96449 4195929	181034	491703	966365	2029796	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	19597 815175	37780	101504	211326	440909	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	27410 1113798	49607	136187	268154	560541	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	9386 251702	11860	32365	63589	137063	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	3257 182047	6038	14967	29723	80679	1.00 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	26775 1076221	47389	129409	254453	528015	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	26259 926158	44172	120858	234076	463063	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	72407 3082345	135827	371399	733204	1513826	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	25996 987428	46888	119796	239750	483033	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCBd 4	Ave	62716 2596141	115971	314678	619179	1287034	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	77843 3157571	141169	376818	752076	1549282	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	81345 3398671	148480	399186	803176	1648832	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	45150 1779043	80902	230723	433841	897766	1.00 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	68125 2939119	127909	345712	693788	1440244	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	46805 1854614	84070	232754	451098	927154	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77152-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	57737 2241904	100123	274095	536269	1110385	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	41770 1627473	74095	203462	404814	837747	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2782 147239	6373	17054	37053	80725	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	22060 868088	39458	105430	209702	423012	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Ave	10122 374507	17958	48745	94631	186376	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	47981 1892003	86764	236052	482735	1031066	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	17303 723200	32841	90288	180228	368452	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	22057 815354	39103	95916	195142	400040	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	24336 927115	45534	114155	227621	475303	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	90015 3854391	175158	442229	880637	1845750	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	33009 1189305	56067	148021	294831	605220	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab Sample ID: ICV 240-272388/15 Calibration Date: 03/29/2017 14:47

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1055.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2379	0.1992		0.0100	0.0120	-16.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2138		0.00929	0.0120	-22.3*	20.0
Toluene-d8 (Surr)	Ave	1.444	1.204		0.00997	0.0120	-16.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.4028		0.0100	0.0120	-16.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab Sample ID: ICV 240-272388/15 Calibration Date: 03/29/2017 14:47

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 12:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 14:24

Lab File ID: UXJ1055.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0181	0.0162		0.0895	0.100	-10.5	20.0
Isopropyl ether	Ave	0.2617	0.2631		0.0101	0.0100	0.5	20.0
2-Chloro-1,3-butadiene	Ave	0.4583	0.4307		0.00940	0.0100	-6.0	20.0
Tert-butyl ethyl ether	Ave	0.8371	0.7949		0.00950	0.0100	-5.0	20.0
Ethyl acetate	Ave	0.1936	0.1718		0.0178	0.0200	-11.2	50.0
Propionitrile	Ave	0.0241	0.0220		0.0913	0.100	-8.7	20.0
Methacrylonitrile	Ave	0.1333	0.1221		0.0916	0.100	-8.4	20.0
Tert-amyl methyl ether	Ave	0.7539	0.7317		0.00970	0.0100	-3.0	20.0
n-Butanol	Ave	0.0051	0.0033		0.162	0.250	-35.1*	20.0
Ethyl acrylate	Ave	0.2937	0.2711		0.00923	0.0100	-7.7	20.0
Methyl methacrylate	Ave	0.2018	0.1859		0.0184	0.0200	-7.8	20.0
2-Nitropropane	Ave	0.0491	0.0453		0.0185	0.0200	-7.7	20.0
n-Butyl acetate	Ave	0.3308	0.2978		0.00900	0.0100	-10.0	30.0
1-Chlorohexane	Ave	0.4626	0.4255		0.00920	0.0100	-8.0	20.0
Cyclohexanone	Lin1		0.0086		0.0665	0.100	-33.5*	20.0
Pentachloroethane	Lin1		0.1984		0.0192	0.0200	-4.2	20.0
1,2,3-Trimethylbenzene	Ave	2.527	2.416		0.00956	0.0100	-4.4	20.0
Benzyl chloride	Lin1		0.2778		0.00855	0.0100	-14.5	20.0
1,3,5-Trichlorobenzene	Ave	0.8021	0.7284		0.00908	0.0100	-9.2	20.0
2-Methylnaphthalene	Ave	0.9439	0.6804		0.0144	0.0200	-27.9*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1724	0.1520	0.1000	0.00882	0.0100	-11.8	20.0
Chloromethane	Ave	0.2203	0.1934	0.1000	0.00878	0.0100	-12.2	20.0
Vinyl chloride	Ave	0.2072	0.1812	0.1000	0.00875	0.0100	-12.5	20.0
Butadiene	Ave	0.2001	0.1707		0.00853	0.0100	-14.7	30.0
Bromomethane	Lin1		0.0803	0.0500	0.00808	0.0100	-19.2	20.0
Chloroethane	Ave	0.1010	0.0911	0.0500	0.00903	0.0100	-9.7	20.0
Dichlorofluoromethane	Ave	0.2987	0.2255		0.00755	0.0100	-24.5*	20.0
Trichlorofluoromethane	Ave	0.2202	0.1985	0.1000	0.00901	0.0100	-9.9	20.0
Ethyl ether	Ave	0.2318	0.2049		0.00884	0.0100	-11.6	20.0
Acrolein	Ave	0.0272	0.0288		0.0529	0.0500	5.7	50.0
1,1-Dichloroethene	Ave	0.2290	0.1927	0.1000	0.00842	0.0100	-15.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1426	0.1116	0.0500	0.00783	0.0100	-21.7*	20.0
Acetone	Ave	0.0728	0.0341	0.0100	0.00937	0.0200	-53.2*	50.0
Iodomethane	Ave	0.3163	0.2412		0.00763	0.0100	-23.7*	20.0
Carbon disulfide	Ave	0.6282	0.5005	0.1000	0.00797	0.0100	-20.3*	20.0
3-Chloro-1-propene	Ave	0.1930	0.1810		0.00938	0.0100	-6.2	20.0
Methyl acetate	Ave	0.1490	0.1241	0.1000	0.0416	0.0500	-16.8	20.0
Methylene Chloride	Lin1		0.2495	0.1000	0.00949	0.0100	-5.1	50.0
2-Methyl-2-propanol	Ave	0.0135	0.0092		0.0686	0.100	-31.4	50.0
Acrylonitrile	Ave	0.0768	0.0647		0.0842	0.100	-15.8	20.0
Methyl tert-butyl ether	Ave	0.7070	0.6302	0.1000	0.00891	0.0100	-10.9	20.0
trans-1,2-Dichloroethene	Ave	0.2946	0.2591	0.1000	0.00879	0.0100	-12.1	20.0
Hexane	Ave	0.0659	0.0491		0.00744	0.0100	-25.6*	20.0
1,1-Dichloroethane	Ave	0.4715	0.4226	0.2000	0.00896	0.0100	-10.4	20.0
Vinyl acetate	Ave	0.4379	0.3731		0.00852	0.0100	-14.8	50.0
2,2-Dichloropropane	Ave	0.2768	0.2325		0.00840	0.0100	-16.0	20.0
2-Butanone (MEK)	Ave	0.0952	0.0659	0.0100	0.0138	0.0200	-30.8*	20.0
cis-1,2-Dichloroethene	Ave	0.3043	0.2828	0.1000	0.00929	0.0100	-7.1	20.0
Chlorobromomethane	Ave	0.1410	0.1239		0.00879	0.0100	-12.1	20.0
Tetrahydrofuran	Ave	0.0558	0.0443		0.0159	0.0200	-20.6*	20.0
Chloroform	Ave	0.4423	0.3996	0.2000	0.00903	0.0100	-9.7	20.0
1,1,1-Trichloroethane	Ave	0.3308	0.2958	0.1000	0.00894	0.0100	-10.6	20.0
Cyclohexane	Ave	0.3679	0.3157	0.1000	0.00858	0.0100	-14.2	20.0
1,1-Dichloropropene	Ave	0.3588	0.3320		0.00925	0.0100	-7.5	20.0
Carbon tetrachloride	Ave	0.2829	0.2512	0.1000	0.00888	0.0100	-11.2	20.0
Isobutyl alcohol	Ave	0.0060	0.0043		0.179	0.250	-28.4*	20.0
1,2-Dichloroethane	Ave	0.3070	0.2757	0.1000	0.00898	0.0100	-10.2	20.0
Benzene	Ave	1.192	1.080	0.5000	0.00906	0.0100	-9.4	20.0
n-Heptane	Ave	0.0603	0.0475		0.00787	0.0100	-21.3*	20.0
Trichloroethene	Ave	0.2980	0.2656	0.1500	0.00891	0.0100	-10.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3653	0.2928	0.1000	0.00802	0.0100	-19.8	20.0
1,2-Dichloropropane	Ave	0.2768	0.2561	0.1000	0.00925	0.0100	-7.5	20.0
Dibromomethane	Ave	0.1447	0.1263		0.00873	0.0100	-12.7	20.0
1,4-Dioxane	Qua		0.0008		0.0990	0.200	-50.5*	50.0
Dichlorobromomethane	Ave	0.3203	0.2954	0.1500	0.00922	0.0100	-7.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1542	0.1392		0.00903	0.0100	-9.7	20.0
cis-1,3-Dichloropropene	Ave	0.4213	0.4040	0.1500	0.00959	0.0100	-4.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1937	0.1614	0.0500	0.0167	0.0200	-16.7	20.0
Toluene	Ave	1.702	1.557	0.4000	0.00915	0.0100	-8.5	20.0
trans-1,3-Dichloropropene	Ave	0.4875	0.4476	0.1000	0.00918	0.0100	-8.2	20.0
Ethyl methacrylate	Ave	0.4728	0.4224		0.00893	0.0100	-10.7	20.0
1,1,2-Trichloroethane	Ave	0.2936	0.2688	0.1000	0.00916	0.0100	-8.4	20.0
Tetrachloroethene	Ave	0.3204	0.2926	0.1500	0.00913	0.0100	-8.7	20.0
1,3-Dichloropropane	Ave	0.5391	0.4881		0.00905	0.0100	-9.5	20.0
2-Hexanone	Ave	0.1913	0.1463	0.0500	0.0153	0.0200	-23.5*	20.0
Chlorodibromomethane	Ave	0.2886	0.2708		0.00938	0.0100	-6.2	20.0
Ethylene Dibromide	Ave	0.2950	0.2590		0.00878	0.0100	-12.2	20.0
Chlorobenzene	Ave	1.030	0.9464	0.3000	0.00919	0.0100	-8.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3429	0.3303		0.00963	0.0100	-3.7	20.0
Ethylbenzene	Ave	0.5585	0.5055		0.00905	0.0100	-9.5	20.0
m-Xylene & p-Xylene	Ave	0.6874	0.6356		0.00925	0.0100	-7.5	20.0
o-Xylene	Ave	0.6575	0.6107		0.00929	0.0100	-7.1	20.0
Styrene	Ave	1.178	1.093	0.3000	0.00928	0.0100	-7.2	20.0
Bromoform	Lin1		0.1552	0.1000	0.00818	0.0100	-18.2	20.0
Isopropylbenzene	Ave	1.565	1.437	0.1000	0.00918	0.0100	-8.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6779	0.6005	0.3000	0.00886	0.0100	-11.4	20.0
Bromobenzene	Ave	0.8986	0.8270		0.00920	0.0100	-8.0	20.0
1,2,3-Trichloropropane	Ave	0.2291	0.1944		0.00848	0.0100	-15.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1153	0.0968		0.00839	0.0100	-16.1	20.0
N-Propylbenzene	Ave	0.8597	0.7745		0.00901	0.0100	-9.9	20.0
2-Chlorotoluene	Ave	0.7888	0.7065		0.00896	0.0100	-10.4	20.0
1,3,5-Trimethylbenzene	Ave	2.442	2.239		0.00917	0.0100	-8.3	20.0
4-Chlorotoluene	Ave	0.8109	0.7310		0.00901	0.0100	-9.9	20.0
tert-Butylbenzene	Ave	2.077	1.870		0.00900	0.0100	-10.0	20.0
1,2,4-Trimethylbenzene	Ave	2.524	2.289		0.00907	0.0100	-9.3	20.0
sec-Butylbenzene	Ave	2.678	2.378		0.00888	0.0100	-11.2	20.0
1,3-Dichlorobenzene	Ave	1.466	1.342	0.6000	0.00916	0.0100	-8.4	20.0
4-Isopropyltoluene	Ave	2.306	2.072		0.00898	0.0100	-10.2	20.0
1,4-Dichlorobenzene	Ave	1.514	1.395	0.5000	0.00921	0.0100	-7.9	20.0
n-Butylbenzene	Ave	1.817	1.579		0.00869	0.0100	-13.1	20.0
1,2-Dichlorobenzene	Ave	1.344	1.222	0.4000	0.00909	0.0100	-9.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1151	0.1007	0.0500	0.00874	0.0100	-12.6	50.0
1,2,4-Trichlorobenzene	Ave	0.7024	0.5999	0.2000	0.00854	0.0100	-14.6	50.0
Hexachlorobutadiene	Ave	0.3161	0.2508		0.00793	0.0100	-20.7*	20.0
Naphthalene	Ave	1.583	1.363		0.00861	0.0100	-13.9	50.0
1,2,3-Trichlorobenzene	Ave	0.5891	0.5323		0.00904	0.0100	-9.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2379	0.1846		0.00928	0.0120	-22.4*	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2096		0.00911	0.0120	-23.9*	20.0
Toluene-d8 (Surr)	Ave	1.444	1.157		0.00958	0.0120	-19.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.3742		0.00933	0.0120	-22.0*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab Sample ID: CCVIS 240-272601/2 Calibration Date: 03/30/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1058.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1724	0.1801	0.1000	0.0104	0.0100	4.5	20.0
Chloromethane	Ave	0.2203	0.2007	0.1000	0.00911	0.0100	-8.9	20.0
Vinyl chloride	Ave	0.2072	0.1871	0.1000	0.00903	0.0100	-9.7	20.0
Butadiene	Ave	0.2001	0.1550		0.00774	0.0100	-22.6*	20.0
Bromomethane	Lin1		0.0887	0.0500	0.00901	0.0100	-9.9	20.0
Chloroethane	Ave	0.1010	0.0949	0.0500	0.00939	0.0100	-6.1	20.0
Dichlorofluoromethane	Ave	0.2987	0.2368		0.00793	0.0100	-20.7*	20.0
Trichlorofluoromethane	Ave	0.2202	0.2014	0.1000	0.00914	0.0100	-8.6	20.0
Ethyl ether	Ave	0.2318	0.2169		0.00936	0.0100	-6.4	20.0
Acrolein	Ave	0.0272	0.0264		0.0484	0.0500	-3.3	50.0
1,1-Dichloroethene	Ave	0.2290	0.2095	0.1000	0.00915	0.0100	-8.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1426	0.1172	0.0500	0.00821	0.0100	-17.9	20.0
Acetone	Ave	0.0728	0.0637	0.0100	0.0175	0.0200	-12.4	50.0
Iodomethane	Ave	0.3163	0.2846		0.00900	0.0100	-10.0	20.0
Carbon disulfide	Ave	0.6282	0.5374	0.1000	0.00855	0.0100	-14.5	20.0
3-Chloro-1-propene	Ave	0.1930	0.2036		0.0105	0.0100	5.5	20.0
Methyl acetate	Ave	0.1490	0.1307	0.1000	0.0438	0.0500	-12.3	20.0
Methylene Chloride	Lin1		0.3016	0.1000	0.0116	0.0100	16.3	50.0
2-Methyl-2-propanol	Ave	0.0135	0.0109		0.0806	0.100	-19.4	50.0
Acrylonitrile	Ave	0.0768	0.0686		0.0893	0.100	-10.7	20.0
Methyl tert-butyl ether	Ave	0.7070	0.6659	0.1000	0.00942	0.0100	-5.8	20.0
trans-1,2-Dichloroethene	Ave	0.2946	0.2612	0.1000	0.00887	0.0100	-11.3	20.0
Hexane	Ave	0.0659	0.0555		0.00841	0.0100	-15.9	20.0
1,1-Dichloroethane	Ave	0.4715	0.4402	0.2000	0.00934	0.0100	-6.6	20.0
Vinyl acetate	Ave	0.4379	0.3951		0.00902	0.0100	-9.8	50.0
2,2-Dichloropropane	Ave	0.2768	0.2287		0.00826	0.0100	-17.4	20.0
2-Butanone (MEK)	Ave	0.0952	0.0882	0.0100	0.0185	0.0200	-7.3	20.0
cis-1,2-Dichloroethene	Ave	0.3043	0.2979	0.1000	0.00979	0.0100	-2.1	20.0
Chlorobromomethane	Ave	0.1410	0.1376		0.00975	0.0100	-2.5	20.0
Tetrahydrofuran	Ave	0.0558	0.0512		0.0184	0.0200	-8.2	20.0
Chloroform	Ave	0.4423	0.4268	0.2000	0.00965	0.0100	-3.5	20.0
1,1,1-Trichloroethane	Ave	0.3308	0.2930	0.1000	0.00885	0.0100	-11.5	20.0
Cyclohexane	Ave	0.3679	0.3164	0.1000	0.00860	0.0100	-14.0	20.0
1,1-Dichloropropene	Ave	0.3588	0.3317		0.00924	0.0100	-7.6	20.0
Carbon tetrachloride	Ave	0.2829	0.2558	0.1000	0.00904	0.0100	-9.6	20.0
Isobutyl alcohol	Ave	0.0060	0.0050		0.210	0.250	-16.2	20.0
1,2-Dichloroethane	Ave	0.3070	0.3022	0.1000	0.00984	0.0100	-1.6	20.0
Benzene	Ave	1.192	1.118	0.5000	0.00938	0.0100	-6.2	20.0
n-Heptane	Ave	0.0603	0.0509		0.00844	0.0100	-15.6	20.0
Trichloroethene	Ave	0.2980	0.2853	0.1500	0.00957	0.0100	-4.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab Sample ID: CCVIS 240-272601/2 Calibration Date: 03/30/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1058.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3653	0.3105	0.1000	0.00850	0.0100	-15.0	20.0
1,2-Dichloropropane	Ave	0.2768	0.2665	0.1000	0.00963	0.0100	-3.7	20.0
Dibromomethane	Ave	0.1447	0.1334		0.00922	0.0100	-7.8	20.0
1,4-Dioxane	Qua		0.0012		0.138	0.200	-30.9	50.0
Dichlorobromomethane	Ave	0.3203	0.3133	0.1500	0.00978	0.0100	-2.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1542	0.1420		0.0184	0.0200	-7.9	20.0
cis-1,3-Dichloropropene	Ave	0.4213	0.4301	0.1500	0.0102	0.0100	2.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1937	0.1665	0.0500	0.0172	0.0200	-14.1	20.0
Toluene	Ave	1.702	1.599	0.4000	0.00940	0.0100	-6.0	20.0
trans-1,3-Dichloropropene	Ave	0.4875	0.4868	0.1000	0.00999	0.0100	-0.1	20.0
Ethyl methacrylate	Ave	0.4728	0.4317		0.00913	0.0100	-8.7	20.0
1,1,2-Trichloroethane	Ave	0.2936	0.2812	0.1000	0.00958	0.0100	-4.2	20.0
Tetrachloroethene	Ave	0.3204	0.2947	0.1500	0.00920	0.0100	-8.0	20.0
1,3-Dichloropropane	Ave	0.5391	0.5155		0.00956	0.0100	-4.4	20.0
2-Hexanone	Ave	0.1913	0.1773	0.0500	0.0185	0.0200	-7.3	20.0
Chlorodibromomethane	Ave	0.2886	0.3065		0.0106	0.0100	6.2	20.0
Ethylene Dibromide	Ave	0.2950	0.2714		0.00920	0.0100	-8.0	20.0
Chlorobenzene	Ave	1.030	1.002	0.3000	0.00972	0.0100	-2.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3429	0.3416		0.00996	0.0100	-0.4	20.0
Ethylbenzene	Ave	0.5585	0.5300		0.00949	0.0100	-5.1	20.0
m-Xylene & p-Xylene	Ave	0.6874	0.6475		0.00942	0.0100	-5.8	20.0
o-Xylene	Ave	0.6575	0.6339		0.00964	0.0100	-3.6	20.0
Styrene	Ave	1.178	1.142	0.3000	0.00969	0.0100	-3.1	20.0
Bromoform	Lin1		0.1820	0.1000	0.00947	0.0100	-5.3	20.0
Isopropylbenzene	Ave	1.565	1.461	0.1000	0.00933	0.0100	-6.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6779	0.6065	0.3000	0.00895	0.0100	-10.5	20.0
Bromobenzene	Ave	0.8986	0.8484		0.00944	0.0100	-5.6	20.0
1,2,3-Trichloropropane	Ave	0.2291	0.1959		0.00855	0.0100	-14.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1153	0.1217		0.0106	0.0100	5.6	20.0
N-Propylbenzene	Ave	0.8597	0.7783		0.00905	0.0100	-9.5	20.0
2-Chlorotoluene	Ave	0.7888	0.7170		0.00909	0.0100	-9.1	20.0
1,3,5-Trimethylbenzene	Ave	2.442	2.286		0.00936	0.0100	-6.4	20.0
4-Chlorotoluene	Ave	0.8109	0.7535		0.00929	0.0100	-7.1	20.0
tert-Butylbenzene	Ave	2.077	1.901		0.00915	0.0100	-8.5	20.0
1,2,4-Trimethylbenzene	Ave	2.524	2.423		0.00960	0.0100	-4.0	20.0
sec-Butylbenzene	Ave	2.678	2.485		0.00928	0.0100	-7.2	20.0
1,3-Dichlorobenzene	Ave	1.466	1.420	0.6000	0.00969	0.0100	-3.1	20.0
4-Isopropyltoluene	Ave	2.306	2.191		0.00950	0.0100	-5.0	20.0
1,4-Dichlorobenzene	Ave	1.514	1.447	0.5000	0.00955	0.0100	-4.5	20.0
n-Butylbenzene	Ave	1.817	1.658		0.00912	0.0100	-8.8	20.0
1,2-Dichlorobenzene	Ave	1.344	1.298	0.4000	0.00965	0.0100	-3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab Sample ID: CCVIS 240-272601/2 Calibration Date: 03/30/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1058.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1151	0.1125	0.0500	0.00977	0.0100	-2.3	50.0
1,2,4-Trichlorobenzene	Ave	0.7024	0.6623	0.2000	0.00943	0.0100	-5.7	50.0
Hexachlorobutadiene	Ave	0.3161	0.2770		0.00877	0.0100	-12.3	20.0
Naphthalene	Ave	1.583	1.407		0.00889	0.0100	-11.1	50.0
1,2,3-Trichlorobenzene	Ave	0.5891	0.5314		0.00902	0.0100	-9.8	20.0
Dibromofluoromethane (Surr)	Ave	0.2379	0.2460		0.0103	0.0100	3.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2724		0.00990	0.0100	-1.0	20.0
Toluene-d8 (Surr)	Ave	1.444	1.499		0.0104	0.0100	3.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.4917		0.0103	0.0100	2.5	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77152-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272601/6

Matrix: Water | Lab File ID: UXJ1062.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77152-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272601/6

Matrix: Water | Lab File ID: UXJ1062.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	1.92		1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	102		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-77152-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77152-1

SDG No.:

Lab Sample ID: ICV 200-114713/9 Calibration Date: 03/08/2017 12:21

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_09.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5752	0.0500	184	200	-7.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77152-1

SDG No.:

Lab Sample ID: CCV 200-115280/15 Calibration Date: 03/29/2017 17:20

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24494_15.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6745	0.0500	108	100	8.0	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7222	0.0500	598	500	19.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77152-1

SDG No.:

Lab Sample ID: CCV 200-115280/26 Calibration Date: 03/29/2017 20:27

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24494_26.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7142	0.0500	915	800	14.4	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6908	0.0500	572	500	14.4	30.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77152-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-115253/1-A

Matrix: Water | Lab File ID: Z24494_04.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 03/28/2017 17:53

Sample wt/vol: 100(mL) | Date Analyzed: 03/29/2017 14:13

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115280 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	97		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77152-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-115253/1-A

Matrix: Water | Lab File ID: Z24494_04.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 03/28/2017 17:53

Sample wt/vol: 100(mL) | Date Analyzed: 03/29/2017 14:13

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115280 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	97		46-130

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77152-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW74A-032217	240-77152-2	100
MRC-MW74B-032217	240-77152-3	103
	MB 200-115253/1-A	97
	LCS 200-115253/2-A	111

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77152-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24494_03.D

Lab ID: LCS 200-115253/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	2.25	112	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77152-1

SDG No.:

Lab File ID: Z24494_04.D Lab Sample ID: MB 200-115253/1-A

Matrix: Water Date Extracted: 03/28/2017 17:53

Instrument ID: CHZ.i Date Analyzed: 03/29/2017 14:13

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-115253/2-A	Z24494_03.D	03/29/2017 13:57
MRC-MW74A-032217	240-77152-2	Z24494_23.D	03/29/2017 19:36
MRC-MW74B-032217	240-77152-3	Z24494_24.D	03/29/2017 19:53

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77152-1

SDG No.:

Lab File ID: Z24230_01.D BFB Injection Date: 03/08/2017

Instrument ID: CHZ.i BFB Injection Time: 10:08

Analysis Batch No.: 114713

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 80.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.3	
175	5.0 - 9.0 % of mass 174	4.9	(7.2) 1
176	>95.0 but <101.0 % of mass 174	66.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-114713/2	Z24230_02.D	03/08/2017	10:20
	IC 200-114713/3	Z24230_03.D	03/08/2017	10:37
	IC 200-114713/4	Z24230_04.D	03/08/2017	10:54
	ICIS 200-114713/5	Z24230_05.D	03/08/2017	11:12
	IC 200-114713/6	Z24230_06.D	03/08/2017	11:29
	IC 200-114713/7	Z24230_07.D	03/08/2017	11:46
	IC 200-114713/8	Z24230_08.D	03/08/2017	12:03
	ICV 200-114713/9	Z24230_09.D	03/08/2017	12:21

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77152-1

SDG No.:

Lab File ID: Z24401_03.D BFB Injection Date: 03/22/2017

Instrument ID: CHZ.i BFB Injection Time: 15:37

Analysis Batch No.: 115085

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 80.0 % of mass 95	45.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	80.7	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	>95.0 but <101.0 % of mass 174	77.4	(95.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVL 200-115085/4	Z24401_04.D	03/22/2017	15:48
	CCVL 200-115280/1	Z24494_01.D	03/29/2017	13:24
	LCS 200-115253/2-A	Z24494_03.D	03/29/2017	13:57
	MB 200-115253/1-A	Z24494_04.D	03/29/2017	14:13
	CCV 200-115280/15	Z24494_15.D	03/29/2017	17:20
MRC-MW74A-032217	240-77152-2	Z24494_23.D	03/29/2017	19:36
MRC-MW74B-032217	240-77152-3	Z24494_24.D	03/29/2017	19:53
	CCV 200-115280/26	Z24494_26.D	03/29/2017	20:27

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77152-1

SDG No.:

Sample No.: ICIS 200-114713/5 Date Analyzed: 03/08/2017 11:12

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24230_05.D Heated Purge: (Y/N) N

Calibration ID: 36785

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224595	3.32				
UPPER LIMIT		336893	3.82				
LOWER LIMIT		112298	2.82				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-114713/9		202920	3.32				
CCVL 200-115085/4		270907	3.25				
CCVL 200-115280/1		217503	3.22				
LCS 200-115253/2-A		222709	3.23				
MB 200-115253/1-A		244553	3.23				
CCV 200-115280/15		228305	3.23				
240-77152-2	MRC-MW74A-032217	238777	3.22				
240-77152-3	MRC-MW74B-032217	235197	3.22				
CCV 200-115280/26		234077	3.23				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-77152-1 Analy Batch No.: 470826

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2017 10:40 Calibration End Date: 03/01/2017 12:36 Calibration ID: 50854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-470826/8	xc0108.D
Level 2	IC 680-470826/7	xc0107.D
Level 3	ICISAV 680-470826/18	xc0109.D
Level 4	IC 680-470826/6	xc0106.D
Level 5	IC 680-470826/5	xc0105.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8416	0.7627	0.7274	0.7606	0.8593	Ave		0.7903				7.2		20.0			
Dichlorobiphenyl	0.5708	0.5190	0.5508	0.5792	0.6622	Ave		0.5764				9.2		20.0			
Trichlorobiphenyl	0.4207	0.3956	0.3850	0.4065	0.4645	Ave		0.4144				7.5		20.0			
PCB-104			0.3635			Ave		0.3635						30.0			
Tetrachlorobiphenyl	0.3178	0.2888	0.2922	0.3061	0.3378	Ave		0.3085				6.5		20.0			
Pentachlorobiphenyl	0.2712	0.2483	0.2566	0.2684	0.2960	Ave		0.2681				6.8		20.0			
PCB-77			0.4422			Ave		0.4422						30.0			
Hexachlorobiphenyl	0.2740	0.2570	0.2623	0.2761	0.2992	Ave		0.2737				6.0		20.0			
Heptachlorobiphenyl	0.2480	0.2272	0.2314	0.2438	0.2678	Ave		0.2436				6.6		20.0			
Octachlorobiphenyl	0.2242	0.2042	0.2047	0.2209	0.2397	Ave		0.2187				6.8		20.0			
PCB-208			0.0838			Ave		0.0838						30.0			
Nonachlorobiphenyl			0.0638			Ave		0.0437				4.1		20.0			
DCB Decachlorobiphenyl	0.0450	0.0411	0.0430	0.0436	0.0457	Ave		0.0437				4.1		20.0			
gamma-BHC-13C6 (Surr)	0.1735	0.1703	0.1703	0.1835	0.1495	Ave		0.1694				7.3		50.0			
Decachlorobiphenyl-13C12	0.0541	0.0574	0.0574	0.0574	0.0609	Ave		0.0574				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Lab Sample ID: ICV 680-470826/9 Calibration Date: 03/01/2017 13:05

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc0110.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.6886		0.871	1.00	-12.9	20.0
Dichlorobiphenyl	Ave	0.5764	0.4994		0.866	1.00	-13.4	20.0
Trichlorobiphenyl	Ave	0.4144	0.3972		0.958	1.00	-4.2	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.2959		1.92	2.00	-4.1	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2467		1.84	2.00	-8.0	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2514		1.84	2.00	-8.2	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2286		2.82	3.00	-6.2	20.0
Octachlorobiphenyl	Ave	0.2187	0.2104		2.89	3.00	-3.8	20.0
Nonachlorobiphenyl	Ave	0.0638	0.0837		7.66	4.00	31.2*	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0433		4.95	5.00	-0.9	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0588		5.12	5.00	2.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Lab Sample ID: CCVIS 680-474122/3 Calibration Date: 03/31/2017 12:02

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc3104.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.7774		0.984	1.00	-1.6	20.0
Dichlorobiphenyl	Ave	0.5764	0.5682		0.986	1.00	-1.4	20.0
Trichlorobiphenyl	Ave	0.4144	0.4306		1.04	1.00	3.9	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.3218		2.09	2.00	4.3	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2766		2.06	2.00	3.2	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2791		2.04	2.00	2.0	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2380		2.93	3.00	-2.3	20.0
Octachlorobiphenyl	Ave	0.2187	0.2142		2.94	3.00	-2.1	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0418		4.79	5.00	-4.2	20.0
gamma-BHC-13C6 (Surr)	Ave	0.1694	0.1871		2.21	2.00	10.4	50.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0554		4.82	5.00	-3.6	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Lab Sample ID: CCV 680-474122/20 Calibration Date: 03/31/2017 20:13

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc3121.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.7231		0.915	1.00	-8.5	20.0
Dichlorobiphenyl	Ave	0.5764	0.5410		0.939	1.00	-6.1	20.0
Trichlorobiphenyl	Ave	0.4144	0.3843		0.927	1.00	-7.3	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.2976		1.93	2.00	-3.5	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2526		1.88	2.00	-5.8	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2624		1.92	2.00	-4.1	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2292		2.82	3.00	-5.9	20.0
Octachlorobiphenyl	Ave	0.2187	0.2030		2.78	3.00	-7.2	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0389		4.45	5.00	-11.0	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0510		4.44	5.00	-11.3	20.0

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77152-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-473802/6-A

Matrix: Water | Lab File ID: xc3106.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 03/27/2017 12:57

Sample wt/vol: 1000(mL) | Date Analyzed: 03/31/2017 13:00

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 474122 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.0054	U	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0065	U	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	84		25-113

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Batch Number: 473802 Batch Start Date: 03/27/17 12:57 Batch Analyst: Wilson, Charles E

Batch Method: 680 Batch End Date: 03/28/17 06:58

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH
240-77152-G-2	MRC-MW74A-032217	680, 680	T	7 SU	1425.5 g	503.9 g	921.6 mL	1 mL	7 SU
240-77152-G-3	MRC-MW74B-032217	680, 680	T	7 SU	1484.5 g	502.1 g	982.4 mL	1 mL	7 SU
240-77152-A-4	MRC-MW74C-032217	680, 680	T	7 SU	1462.0 g	503.2 g	958.8 mL	1 mL	7 SU
MB 680-473802/6		680, 680		7 SU			1000 mL	1 mL	7 SU
LCS 680-473802/7		680, 680		7 SU			1000 mL	1 mL	7 SU
LCSD 680-473802/8		680, 680		7 SU			1000 mL	1 mL	7 SU

Lab Sample ID	Client Sample ID	Method Chain	Basis	ResidualChloCheck	680wkSPIKE 00108	680wkSURR-NEW 00017			
240-77152-G-2	MRC-MW74A-032217	680, 680	T	N		1 mL			
240-77152-G-3	MRC-MW74B-032217	680, 680	T	N		1 mL			
240-77152-A-4	MRC-MW74C-032217	680, 680	T	N		1 mL			
MB 680-473802/6		680, 680		N		1 mL			
LCS 680-473802/7		680, 680		N	1 mL	1 mL			
LCSD 680-473802/8		680, 680		N	1 mL	1 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	13CDCB #
MRC-MW74A-032217	240-77152-2	82
MRC-MW74B-032217	240-77152-3	85
MRC-MW74C-032217	240-77152-4	88
	MB 680-473802/6-A	84
	LCS 680-473802/7-A	96
	LCSD 680-473802/8-A	99

	QC LIMITS
13CDCB = Decachlorobiphenyl-13C12	25-113

Column to be used to flag recovery values

FORM II 680

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc3107.D

Lab ID: LCS 680-473802/7-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	6.27	104	62-130	
Hexachlorobiphenyl	4.00	4.04	101	62-130	
Nonachlorobiphenyl	10.0	18.4	184	70-195	
Octachlorobiphenyl	6.00	6.06	101	64-130	
Monochlorobiphenyl	2.00	1.70	85	42-130	
DCB Decachlorobiphenyl	10.0	9.82	98	59-130	
Dichlorobiphenyl	2.00	1.86	93	49-130	
Pentachlorobiphenyl	4.00	4.07	102	63-130	
Tetrachlorobiphenyl	4.00	3.97	99	54-130	
Trichlorobiphenyl	2.00	1.92	96	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc3108.D

Lab ID: LCSD 680-473802/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	6.39	106	2	40	62-130	
Hexachlorobiphenyl	4.00	4.08	102	1	40	62-130	
Nonachlorobiphenyl	10.0	19.0	190	3	40	70-195	
Octachlorobiphenyl	6.00	6.35	106	5	40	64-130	
Monochlorobiphenyl	2.00	1.83	91	7	40	42-130	
DCB Decachlorobiphenyl	10.0	9.93	99	1	40	59-130	
Dichlorobiphenyl	2.00	1.97	98	6	40	49-130	
Pentachlorobiphenyl	4.00	4.14	104	2	40	63-130	
Tetrachlorobiphenyl	4.00	4.22	105	6	40	54-130	
Trichlorobiphenyl	2.00	1.99	100	4	40	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Lab File ID: xc3106.D Lab Sample ID: MB 680-473802/6-A

Matrix: Water Date Extracted: 03/27/2017 12:57

Instrument ID: CMSX Date Analyzed: 03/31/2017 13:00

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-473802/7-A	xc3107.D	03/31/2017 13:29
	LCSD 680-473802/8-A	xc3108.D	03/31/2017 13:58
MRC-MW74A-032217	240-77152-2	xc3109.D	03/31/2017 14:27
MRC-MW74B-032217	240-77152-3	xc3110.D	03/31/2017 14:56
MRC-MW74C-032217	240-77152-4	xc3111.D	03/31/2017 15:25

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Lab File ID: xc0102.D DFTPP Injection Date: 03/01/2017

Instrument ID: CMSX DFTPP Injection Time: 09:09

Analysis Batch No.: 470826

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	59.1
197	Less than 1 % of mass 198	0.5
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	5.9
275	10 - 30% of mass 198	28.9
365	Greater than 1% of mass 198	5.0
441	Present but less than mass 443	15.0 (78.2) 2
442	Greater than 40% of mass 198	94.1
443	17 - 23% of mass 442	19.1 (20.3) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 680-470826/5	xc0105.D	03/01/2017	10:40
	IC 680-470826/6	xc0106.D	03/01/2017	11:09
	IC 680-470826/7	xc0107.D	03/01/2017	11:38
	IC 680-470826/8	xc0108.D	03/01/2017	12:07
	ICISAV 680-470826/18	xc0109.D	03/01/2017	12:36
	ICV 680-470826/9	xc0110.D	03/01/2017	13:05

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Lab File ID: xc3102.D DFTPP Injection Date: 03/31/2017

Instrument ID: CMSX DFTPP Injection Time: 11:00

Analysis Batch No.: 474122

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	56.4
197	Less than 1 % of mass 198	0.3
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.9
275	10 - 30% of mass 198	29.6
365	Greater than 1% of mass 198	5.6
441	Present but less than mass 443	16.7 (83.1) 2
442	Greater than 40% of mass 198	101.6
443	17 - 23% of mass 442	20.1 (19.8) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-474122/2	xc3103.D	03/31/2017	11:31
	CCVIS 680-474122/3	xc3104.D	03/31/2017	12:02
	MB 680-473802/6-A	xc3106.D	03/31/2017	13:00
	LCS 680-473802/7-A	xc3107.D	03/31/2017	13:29
	LCSD 680-473802/8-A	xc3108.D	03/31/2017	13:58
MRC-MW74A-032217	240-77152-2	xc3109.D	03/31/2017	14:27
MRC-MW74B-032217	240-77152-3	xc3110.D	03/31/2017	14:56
MRC-MW74C-032217	240-77152-4	xc3111.D	03/31/2017	15:25
	CCV 680-474122/20	xc3121.D	03/31/2017	20:13

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Instrument ID: CMSX Calibration Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calibration End Date: 03/01/2017 12:36

Calibration ID: 50854

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		26910	10.11	27530	16.20		
UPPER LIMIT		40365	10.61	41295	16.70		
LOWER LIMIT		13455	9.61	13765	15.70		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-470826/9		27104	10.11	28137	16.20		
CCVIS 680-474122/3		30598	10.11	30203	16.22		
MB 680-473802/6-A		29010	10.13	28045	16.22		
LCS 680-473802/7-A		27660	10.11	25170	16.22		
LCSD 680-473802/8-A		28956	10.11	26838	16.22		
240-77152-2	MRC-MW74A-032217	31282	10.11	31033	16.20		
240-77152-3	MRC-MW74B-032217	26495	10.11	26484	16.20		
240-77152-4	MRC-MW74C-032217	30878	10.11	30042	16.20		
CCV 680-474122/20		36827	10.11	38905	16.22		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77152-1

SDG No.:

Sample No.: CCVIS 680-474122/3 Date Analyzed: 03/31/2017 12:02

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm)

Lab File ID (Standard): xc3104.D Heated Purge: (Y/N) N

Calibration ID: 50854

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		30598	10.11	30203	16.22		
UPPER LIMIT		39777	10.61	39264	16.72		
LOWER LIMIT		21419	9.61	21142	15.72		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-473802/6-A		29010	10.13	28045	16.22		
LCS 680-473802/7-A		27660	10.11	25170	16.22		
LCSD 680-473802/8-A		28956	10.11	26838	16.22		
240-77152-2	MRC-MW74A-032217	31282	10.11	31033	16.20		
240-77152-3	MRC-MW74B-032217	26495	10.11	26484	16.20		
240-77152-4	MRC-MW74C-032217	30878	10.11	30042	16.20		
CCV 680-474122/20		36827	10.11	38905	16.22		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00189

Analyte	ICV 240-272157/7 03/27/2017 10:02				CCV 240-272157/133 03/27/2017 18:54				CCV 240-272157/145 03/27/2017 19:45			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.8		40.0	102	51.0		50.0	102	51.0		50.0	102
Arsenic	41.0		40.0	103	50.2		50.0	100	50.2		50.0	100
Barium	39.5		40.0	99	51.1		50.0	102	50.5		50.0	101
Beryllium	40.4		40.0	101	46.5		50.0	93	46.1		50.0	92
Cadmium	40.8		40.0	102	51.5		50.0	103	51.1		50.0	102
Chromium	40.2		40.0	100	49.8		50.0	100	50.3		50.0	101
Cobalt	40.3		40.0	101	50.2		50.0	100	50.8		50.0	102
Copper	41.4		40.0	104	50.8		50.0	102	50.5		50.0	101
Iron	10000		10000	100	12600		12500	101	12900		12500	103
Lead	40.5		40.0	101	48.4		50.0	97	49.2		50.0	98
Manganese	202		200	101	253		250	101	256		250	102
Molybdenum	40.6		40.0	102	50.9		50.0	102	50.6		50.0	101
Nickel	41.1		40.0	103	50.0		50.0	100	50.1		50.0	100
Selenium	42.1		40.0	105	51.3		50.0	103	49.2		50.0	98
Silver	40.8		40.0	102	50.8		50.0	102	51.3		50.0	103
Thallium	38.6		40.0	97	46.6		50.0	93	47.3		50.0	95
Vanadium	41.9		40.0	105	49.4		50.0	99	51.0		50.0	102
Zinc	42.8		40.0	107	51.5		50.0	103	53.1		50.0	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00189

Analyte	CCV 240-272157/156 03/27/2017 20:31											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	51.9		50.0	104								
Arsenic	52.2		50.0	104								
Barium	52.3		50.0	105								
Beryllium	46.2		50.0	92								
Cadmium	52.4		50.0	105								
Chromium	51.2		50.0	102								
Cobalt	51.2		50.0	102								
Copper	52.3		50.0	105								
Iron	12900		12500	104								
Lead	48.8		50.0	98								
Manganese	258		250	103								
Molybdenum	51.4		50.0	103								
Nickel	51.6		50.0	103								
Selenium	51.9		50.0	104								
Silver	51.7		50.0	103								
Thallium	46.9		50.0	94								
Vanadium	51.3		50.0	103								
Zinc	53.1		50.0	106								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

ICV Source: MTMSCRI6020AW_00050 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00050

Analyte	ICVL 240-272157/9 03/27/2017 10:10				CCVL 240-272157/158 03/27/2017 20:39							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.27		2.00	114	2.16		2.00	108				
Arsenic	4.94	J	5.00	99	5.14		5.00	103				
Barium	4.94	J	5.00	99	4.85	J	5.00	97				
Beryllium	0.968	J	1.00	97	1.04		1.00	104				
Cadmium	1.02		1.00	102	1.12		1.00	112				
Chromium	2.06		2.00	103	2.20		2.00	110				
Cobalt	1.10		1.00	110	1.14		1.00	114				
Copper	2.26		2.00	113	2.29		2.00	115				
Iron	117		100	117	121		100	121				
Lead	1.05		1.00	105	1.18		1.00	118				
Manganese	5.32		5.00	106	5.55		5.00	111				
Molybdenum	5.01	J	5.00	100	5.11	J	5.00	102				
Nickel	2.12		2.00	106	2.06		2.00	103				
Selenium	5.30		5.00	106	5.21		5.00	104				
Silver	1.04		1.00	104	1.04		1.00	104				
Thallium	0.972	J	1.00	97	0.931	J	1.00	93				
Vanadium	4.90	J	5.00	98	5.12		5.00	102				
Zinc	24.3		20.0	122	24.5		20.0	122				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

ICV Source: MTHgICV_00001_00152 Concentration Units: ug/L

CCV Source: MTHGCALW_01461

Analyte	ICV 240-271832/7-A 03/25/2017 08:45				CCV 240-271832/10-A 03/25/2017 12:55				CCV 240-271832/10-A 03/25/2017 13:19			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.04		5.00	101	5.07		5.00	101	5.06		5.00	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

ICV Source: MTHgICV_00001_00152 Concentration Units: ug/L

CCV Source: MTHGCALW_01461

Analyte	CCV 240-271832/10-A 03/25/2017 13:43				CCV 240-271832/10-A 03/25/2017 14:08							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.06		5.00	101	5.01		5.00	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-271832/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01461

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.230		115	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-272157/8 03/27/2017 10:06		CCB 240-272157/134 03/27/2017 18:58		CCB 240-272157/146 03/27/2017 19:49		CCB 240-272157/157 03/27/2017 20:35	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	1.14	J	0.636	J	0.646	J	0.826	J
Arsenic	5.0	0.49	U	0.49	U	0.49	U	0.49	U
Barium	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Beryllium	1.0	0.053	U	0.053	U	0.053	U	0.0970	J
Cadmium	1.0	0.061	U	0.061	U	0.061	U	0.061	U
Chromium	2.0	0.60	U	0.60	U	0.60	U	0.60	U
Cobalt	1.0	0.021	U	0.0210	J	0.0240	J	0.0620	J
Copper	2.0	0.75	U	0.75	U	0.75	U	0.75	U
Iron	100	16	U	20.1	J	20.7	J	20.4	J
Lead	1.0	0.11	U	0.11	U	0.11	U	0.165	J
Manganese	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Molybdenum	10	0.727	J	0.841	J	0.821	J	0.772	J
Nickel	2.0	0.23	U	0.23	U	0.23	U	0.23	U
Selenium	5.0	0.25	U	0.25	U	0.25	U	0.25	U
Silver	1.0	0.020	U	0.020	U	0.020	U	0.0240	J
Thallium	1.0	0.074	U	0.074	U	0.074	U	0.074	U
Vanadium	5.0	0.23	U	0.23	U	0.23	U	0.23	U
Zinc	20	7.3	U	7.3	U	7.3	U	7.3	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-271832/8-A 03/25/2017 08:46		CCB 240-271832/11-A 03/25/2017 12:57		CCB 240-271832/11-A 03/25/2017 13:21		CCB 240-271832/11-A 03/25/2017 13:45	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-271832/11-A 03/25/2017 14:10							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-271839/1-A

Instrument Code: I10 Batch No.: 272157

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.27	U		6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	1.30	J		6020A
7440-41-7	Beryllium	0.40	U		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.26	U		6020A
7440-50-8	Copper	0.653	J		6020A
7439-89-6	Iron	12.8	J		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	0.509	J		6020A
7440-02-0	Nickel	0.28	U		6020A
7439-92-1	Lead	0.16	U		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	6.55	J		6020A
7440-22-4	Silver	0.030	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-271845/1-A

Instrument Code: H3 Batch No.: 272055

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab Sample ID: ICSA 240-272157/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.249**	
Arsenic		**0.0860**	
Barium		**0.0650**	
Beryllium		**0.0000**	
Cadmium		**0.204**	
Chromium		**0.742**	
Cobalt		**-0.0030**	
Copper		**0.358**	
Iron	**50000**	**49395**	**99**
Lead		**0.106**	
Manganese		**0.0290**	
Molybdenum	**1000**	**1012**	**101**
Nickel		**0.0620**	
Selenium		**0.192**	
Silver		**0.0120**	
Thallium		**-0.0260**	
Vanadium		**0.141**	
Zinc		**0.152**	
Aluminum	*50000*	*50693*	*101*
Boron		*1.33*	
Calcium	*50000*	*50075*	*100*
Lithium		*0.174*	
Magnesium	*50000*	*50320*	*101*
Potassium	*50000*	*49771*	*100*
Sodium	*50000*	*49412*	*99*
Strontium		*0.349*	
Tin		*0.530*	
Titanium	*1000*	*1004*	*100*
Tungsten		*0.697*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Lab Sample ID: ICSAB 240-272157/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00075

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**101**	**101**
Barium	**100**	**100.0**	**100**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**99.9**	**100**
Chromium	**100**	**102**	**102**
Cobalt	**100**	**102**	**102**
Copper	**100**	**101**	**101**
Iron	**50000**	**50393**	**101**
Lead	**100**	**103**	**103**
Manganese	**100**	**103**	**103**
Molybdenum	**1100**	**1141**	**104**
Nickel	**100**	**101**	**101**
Selenium	**100**	**102**	**102**
Silver	**100**	**93.8**	**94**
Thallium	**100**	**100**	**100**
Vanadium	**100**	**103**	**103**
Zinc	**100**	**102**	**102**
Aluminum	*50000*	*51069*	*102*
Boron	*100*	*96.1*	*96*
Calcium	*50000*	*50382*	*101*
Lithium	*100*	*104*	*104*
Magnesium	*50000*	*51077*	*102*
Potassium	*50000*	*50255*	*101*
Sodium	*50000*	*50202*	*100*
Strontium	*100*	*101*	*101*
Tin	*100*	*95.8*	*96*
Titanium	*1100*	*1115*	*101*
Tungsten	*100*	*103*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77145-G-1-B MS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	105		1.7	J	100	103	75-125		6020A
Arsenic	1040		2.1	J	1000	104	75-125		6020A
Barium	1080		43		1000	104	75-125		6020A
Beryllium	963		0.40	U	1000	96	75-125		6020A
Cadmium	1070		0.31	U	1000	107	75-125		6020A
Cobalt	1080		0.86	J	1000	108	75-125		6020A
Chromium	1060		0.43	J	1000	106	75-125		6020A
Copper	1140		1.1	J	1000	114	75-125		6020A
Iron	15400		4900		10000	105	75-125		6020A
Molybdenum	110		4.8	J	100	105	75-125		6020A
Manganese	1460		380		1000	107	75-125		6020A
Nickel	1040		1.5	J	1000	104	75-125		6020A
Lead	1030		0.36	J	1000	103	75-125		6020A
Selenium	1030		0.88	J	1000	103	75-125		6020A
Thallium	253		0.28	U	250	101	75-125		6020A
Vanadium	1080		0.54	U	1000	108	75-125		6020A
Zinc	1040		6.2	U	1000	104	75-125		6020A
Silver	106		0.030	U	100	106	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: Lab ID: 240-77127-E-1-E MS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.22		0.13	U	1.00	122	80-120	F1	7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77145-G-1-C MSD

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	104		100	102	75-125	1	20		6020A
Arsenic	1040		1000	104	75-125	0	20		6020A
Barium	1080		1000	104	75-125	0	20		6020A
Beryllium	937		1000	94	75-125	3	20		6020A
Cadmium	1070		1000	107	75-125	0	20		6020A
Cobalt	1080		1000	108	75-125	0	20		6020A
Chromium	1070		1000	107	75-125	1	20		6020A
Copper	1110		1000	111	75-125	2	20		6020A
Iron	15300		10000	104	75-125	1	20		6020A
Molybdenum	108		100	103	75-125	2	20		6020A
Manganese	1480		1000	110	75-125	2	20		6020A
Nickel	1050		1000	104	75-125	1	20		6020A
Lead	1030		1000	103	75-125	0	20		6020A
Selenium	1030		1000	103	75-125	0	20		6020A
Thallium	253		250	101	75-125	0	20		6020A
Vanadium	1080		1000	108	75-125	0	20		6020A
Zinc	1050		1000	105	75-125	0	20		6020A
Silver	104		100	104	75-125	2	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-77127-E-1-F MSD

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.23		1.00	123	80-120	1	20	F1	7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-271839/27-A

Lab Name: TestAmerica Canton Job No.: 240-77152-1

Sample Matrix: Water LCS Source: MTICPMSB_00030

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	101		101	80	120		6020A
Arsenic	1000	1020		102	80	120		6020A
Barium	1000	1030		103	80	120		6020A
Beryllium	1000	974		97	80	120		6020A
Cadmium	1000	1070		107	80	120		6020A
Cobalt	1000	1070		107	80	120		6020A
Chromium	1000	1030		103	80	120		6020A
Copper	1000	1110		111	80	120		6020A
Iron	10000	10300		103	80	120		6020A
Molybdenum	100	101		101	80	120		6020A
Manganese	1000	1060		106	80	120		6020A
Nickel	1000	1030		103	80	120		6020A
Lead	1000	1020		102	80	120		6020A
Selenium	1000	1030		103	80	120		6020A
Thallium	250	248		99	80	120		6020A
Vanadium	1000	1030		103	80	120		6020A
Zinc	1000	1060		106	80	120		6020A
Silver	100	104		104	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-271845/2-A

Lab Name: TestAmerica Canton Job No.: 240-77152-1

Sample Matrix: Water LCS Source: MTHGCALW_01461

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.82		96	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-77145-G-1-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-77152-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	1.7	J	1.94	J	NC		6020A
Arsenic	2.1	J	2.08	J	NC		6020A
Barium	43		42.4		NC		6020A
Beryllium	0.40	U	2.0	U	NC		6020A
Cadmium	0.31	U	1.6	U	NC		6020A
Cobalt	0.86	J	0.785	J	NC		6020A
Chromium	0.43	J	1.3	U	NC		6020A
Copper	1.1	J	1.8	U	NC		6020A
Iron	4900		4950		NC		6020A
Molybdenum	4.8	J	4.42	J	NC		6020A
Manganese	380		396		NC		6020A
Nickel	1.5	J	1.4	U	NC		6020A
Lead	0.36	J	0.80	U	NC		6020A
Selenium	0.88	J	2.4	U	NC		6020A
Thallium	0.28	U	1.4	U	NC		6020A
Vanadium	0.54	U	2.7	U	NC		6020A
Zinc	6.2	U	31	U	NC		6020A
Silver	0.030	U	0.15	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77152-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 12/13/2016 11:36

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.27
Arsenic	75.00	5	0.35
Barium	137.00	5	0.52
Beryllium	9.00	1	0.4
Cadmium	111.00	1	0.31
Chromium	52.00	2	0.26
Cobalt	59.00	1	0.13
Copper	65.00	2	0.36
Lead	208.00	1	0.16
Molybdenum	95.00	10	0.51
Nickel	60.00	2	0.28
Selenium	78.00	5	0.48
Silver	107.00	1	0.03
Thallium	205.00	1	0.28
Vanadium	51.00	5	0.54
Zinc	66.00	20	6.22

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77152-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 09/15/2014 17:03

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.16
Arsenic	75.00	5	0.49
Barium	137.00	5	1.1
Beryllium	9.00	1	0.053
Cadmium	111.00	1	0.061
Chromium	52.00	2	0.6
Cobalt	59.00	1	0.021
Copper	65.00	2	0.75
Lead	208.00	1	0.11
Molybdenum	95.00	10	0.23
Nickel	60.00	2	0.23
Selenium	78.00	5	0.25
Silver	107.00	1	0.02
Thallium	205.00	1	0.074
Vanadium	51.00	5	0.23
Zinc	66.00	20	7.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77152-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77152-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-77152-1

SDG No.:

Instrument ID: I10 Date: 10/14/2016 11:32

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Arsenic		10000	6020A
Barium		10000	6020A
Beryllium		2000	6020A
Cadmium		4000	6020A
Cobalt		5000	6020A
Chromium		10000	6020A
Copper		10000	6020A
Molybdenum		2000	6020A
Nickel		10000	6020A
Lead		4000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Vanadium		10000	6020A
Zinc		10000	6020A
Silver		300	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-271839/1-A	03/24/2017 14:00	271839		50	50
240-77145-G-1-B MS	03/24/2017 14:00	271839		50	50
240-77145-G-1-C MSD	03/24/2017 14:00	271839		50	50
240-77152-2	03/24/2017 14:00	271839		50	50
240-77152-3	03/24/2017 14:00	271839		50	50
LCS 240-271839/27-A	03/24/2017 14:00	271839		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-271845/1-A	03/24/2017 14:00	271845		50	50
LCS 240-271845/2-A	03/24/2017 14:00	271845		50	50
240-77127-E-1-E MS	03/24/2017 14:00	271845		50	50
240-77127-E-1-F MSD	03/24/2017 14:00	271845		50	50
240-77152-2	03/24/2017 14:00	271845		50	50
240-77152-3	03/24/2017 14:00	271845		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/27/2017 09:36 End Date: 03/27/2017 22:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			09:36																									
ICIS 240-272157/2			09:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-272157/3 IC	1		09:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-272157/4 IC	1		09:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-272157/5 IC	1		09:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-272157/6 IC	1		09:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-272157/7	1		10:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-272157/8	1		10:06	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ICVL 240-272157/9	1		10:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-272157/10	1		10:15	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X								
ICSAB 240-272157/11	1		10:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-272157/12			10:23																									
CCB 240-272157/13			10:27																									
CCV 240-272157/14			10:33																									
CCB 240-272157/15			10:38																									
ZZZZZZ			10:42																									
ZZZZZZ			10:46																									
ZZZZZZ			10:50																									
ZZZZZZ			10:54																									
ZZZZZZ			10:59																									
ZZZZZZ			11:03																									
ZZZZZZ			11:07																									
ZZZZZZ			11:11																									
ZZZZZZ			11:15																									
ZZZZZZ			11:19																									
CCV 240-272157/26			11:23																									
CCB 240-272157/27			11:28																									
ZZZZZZ			11:32																									
ZZZZZZ			11:36																									
ZZZZZZ			11:40																									
ZZZZZZ			11:45																									
ZZZZZZ			11:49																									
ZZZZZZ			11:53																									
ZZZZZZ			11:57																									
ZZZZZZ			12:01																									
ZZZZZZ			12:06																									
ZZZZZZ			12:10																									
CCV 240-272157/38			12:14																									
CCB 240-272157/39			12:18																									
ZZZZZZ			12:23																									
ZZZZZZ			12:27																									
CCV 240-272157/42			12:31																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/27/2017 09:36 End Date: 03/27/2017 22:59

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCB 240-272157/43			12:35																										
ZZZZZZ			12:40																										
ZZZZZZ			12:45																										
ZZZZZZ			12:49																										
ZZZZZZ			12:53																										
ZZZZZZ			12:58																										
ZZZZZZ			13:02																										
ZZZZZZ			13:06																										
ZZZZZZ			13:10																										
ZZZZZZ			13:15																										
ZZZZZZ			13:19																										
CCV 240-272157/54			13:23																										
CCB 240-272157/55			13:27																										
ZZZZZZ			13:32																										
ZZZZZZ			13:36																										
ZZZZZZ			13:40																										
ZZZZZZ			13:44																										
ZZZZZZ			13:48																										
ZZZZZZ			13:53																										
CCV 240-272157/62			13:57																										
CCB 240-272157/63			14:01																										
CCVL 240-272157/64			14:05																										
ZZZZZZ			14:10																										
ZZZZZZ			14:14																										
ZZZZZZ			14:18																										
ZZZZZZ			14:22																										
ZZZZZZ			14:26																										
ZZZZZZ			14:30																										
ZZZZZZ			14:34																										
ZZZZZZ			14:38																										
ZZZZZZ			14:42																										
CCV 240-272157/74			14:47																										
CCB 240-272157/75			14:51																										
ZZZZZZ			14:55																										
ZZZZZZ			14:59																										
ZZZZZZ			15:04																										
ZZZZZZ			15:08																										
ZZZZZZ			15:12																										
ZZZZZZ			15:16																										
ZZZZZZ			15:20																										
ZZZZZZ			15:24																										
ZZZZZZ			15:29																										

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/27/2017 09:36 End Date: 03/27/2017 22:59

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCV 240-272157/85			15:33																										
CCB 240-272157/86			15:37																										
CCVL 240-272157/87			15:41																										
ZZZZZZ			15:46																										
ZZZZZZ			15:50																										
ZZZZZZ			15:54																										
ZZZZZZ			15:58																										
ZZZZZZ			16:02																										
ZZZZZZ			16:06																										
ZZZZZZ			16:10																										
ZZZZZZ			16:14																										
ZZZZZZ			16:19																										
CCV 240-272157/97			16:23																										
CCB 240-272157/98			16:27																										
ZZZZZZ			16:31																										
ZZZZZZ			16:36																										
ZZZZZZ			16:40																										
ZZZZZZ			16:44																										
ZZZZZZ			16:48																										
ZZZZZZ			16:52																										
ZZZZZZ			16:57																										
ZZZZZZ			17:01																										
ZZZZZZ			17:05																										
ZZZZZZ			17:09																										
CCV 240-272157/109			17:14																										
CCB 240-272157/110			17:18																										
ZZZZZZ			17:22																										
ZZZZZZ			17:26																										
ZZZZZZ			17:31																										
ZZZZZZ			17:35																										
ZZZZZZ			17:39																										
ZZZZZZ			17:43																										
ZZZZZZ			17:47																										
ZZZZZZ			17:51																										
ZZZZZZ			17:55																										
ZZZZZZ			17:59																										
CCV 240-272157/121			18:04																										
CCB 240-272157/122			18:08																										
ZZZZZZ			18:12																										
ZZZZZZ			18:16																										
ZZZZZZ			18:20																										
ZZZZZZ			18:25																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/27/2017 09:36 End Date: 03/27/2017 22:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			18:29																									
ZZZZZZ			18:33																									
ZZZZZZ			18:37																									
ZZZZZZ			18:41																									
ZZZZZZ			18:46																									
ZZZZZZ			18:50																									
CCV 240-272157/133	1		18:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-272157/134	1		18:58	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
ZZZZZZ			19:03																									
ZZZZZZ			19:07																									
ZZZZZZ			19:11																									
ZZZZZZ			19:15																									
ZZZZZZ			19:19																									
ZZZZZZ			19:24																									
ZZZZZZ			19:28																									
ZZZZZZ			19:32																									
ZZZZZZ			19:36																									
MB 240-271839/1-A	1	R	19:41	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
CCV 240-272157/145	1		19:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-272157/146	1		19:49	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
LCS 240-271839/27-A	1	R	19:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			19:57																									
240-77145-G-1-A SD ^5	5	R	20:02	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
ZZZZZZ			20:06																									
240-77145-G-1-B MS	1	R	20:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-77145-G-1-C MSD	1	R	20:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			20:18																									
240-77152-2	1	R	20:22	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
240-77152-3	1	R	20:26	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
CCV 240-272157/156	1		20:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-272157/157	1		20:35	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
CCVL 240-272157/158	1		20:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			20:43																									
ZZZZZZ			20:48																									
ZZZZZZ			20:52																									
ZZZZZZ			20:56																									
ZZZZZZ			21:00																									
ZZZZZZ			21:04																									
ZZZZZZ			21:08																									
ZZZZZZ			21:12																									
ZZZZZZ			21:16																									
CCV 240-272157/168			21:21																									

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/27/2017 09:36 End Date: 03/27/2017 22:59

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
CCB 240-272157/169			21:25																											
ZZZZZZ			21:29																											
ICSA 240-272157/171			21:33																											
ICSAB 240-272157/172			21:38																											
ZZZZZZ			21:42																											
ZZZZZZ			21:46																											
ZZZZZZ			21:50																											
ZZZZZZ			21:55																											
ZZZZZZ			21:59																											
ZZZZZZ			22:03																											
ZZZZZZ			22:07																											
ZZZZZZ			22:12																											
ZZZZZZ			22:16																											
CCV 240-272157/182			22:20																											
CCB 240-272157/183			22:24																											
ZZZZZZ			22:29																											
ZZZZZZ			22:33																											
ZZZZZZ			22:37																											
ZZZZZZ			22:41																											
ZZZZZZ			22:46																											
ZZZZZZ			22:50																											
CCV 240-272157/190			22:54																											
CCB 240-272157/191			22:59																											

Prep Types:
R = Total Recoverable

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 03/25/2017 08:25 End Date: 03/25/2017 15:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-271832/1-A			08:25	X																								
IC 240-271832/2-A			08:27	X																								
IC 240-271832/3-A			08:29	X																								
IC 240-271832/4-A			08:31	X																								
IC 240-271832/5-A			08:33	X																								
IC 240-271832/6-A			08:35	X																								
ICV 240-271832/7-A	1		08:45	X																								
ICB 240-271832/8-A	1		08:46	X																								
CRA 240-271832/9-A	1		08:49	X																								
CCV 240-271832/10-A			08:51																									
CCB 240-271832/11-A			08:53																									
CCV 240-271832/10-A			08:55																									
CCB 240-271832/11-A			08:57																									
CCV 240-271832/10-A			09:39																									
CCB 240-271832/11-A			09:41																									
ZZZZZZ			09:43																									
ZZZZZZ			09:45																									
ZZZZZZ			09:47																									
ZZZZZZ			09:49																									
ZZZZZZ			09:51																									
ZZZZZZ			09:53																									
ZZZZZZ			09:56																									
ZZZZZZ			09:58																									
ZZZZZZ			10:00																									
ZZZZZZ			10:02																									
CCV 240-271832/10-A			10:04																									
CCB 240-271832/11-A			10:06																									
ZZZZZZ			10:08																									
ZZZZZZ			10:10																									
ZZZZZZ			10:12																									
ZZZZZZ			10:14																									
ZZZZZZ			10:16																									
ZZZZZZ			10:18																									
ZZZZZZ			10:20																									
ZZZZZZ			10:22																									
ZZZZZZ			10:24																									
ZZZZZZ			10:26																									
CCV 240-271832/10-A			10:28																									
CCB 240-271832/11-A			10:30																									
ZZZZZZ			10:32																									
ZZZZZZ			10:34																									
ZZZZZZ			10:36																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 03/25/2017 08:25 End Date: 03/25/2017 15:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			10:38																									
ZZZZZZ			10:40																									
ZZZZZZ			10:42																									
ZZZZZZ			10:44																									
ZZZZZZ			10:47																									
ZZZZZZ			10:48																									
ZZZZZZ			10:50																									
CCV 240-271832/10-A			10:52																									
CCB 240-271832/11-A			10:54																									
ZZZZZZ			10:57																									
ZZZZZZ			10:59																									
ZZZZZZ			11:01																									
ZZZZZZ			11:03																									
ZZZZZZ			11:04																									
ZZZZZZ			11:06																									
ZZZZZZ			11:08																									
ZZZZZZ			11:10																									
ZZZZZZ			11:12																									
ZZZZZZ			11:14																									
CCV 240-271832/10-A			11:16																									
CCB 240-271832/11-A			11:18																									
ZZZZZZ			11:20																									
ZZZZZZ			11:22																									
ZZZZZZ			11:24																									
ZZZZZZ			11:26																									
ZZZZZZ			11:28																									
ZZZZZZ			11:30																									
ZZZZZZ			11:32																									
ZZZZZZ			11:34																									
ZZZZZZ			11:36																									
ZZZZZZ			11:38																									
CCV 240-271832/10-A			11:41																									
CCB 240-271832/11-A			11:43																									
ZZZZZZ			11:46																									
ZZZZZZ			11:48																									
ZZZZZZ			11:50																									
ZZZZZZ			11:51																									
ZZZZZZ			11:53																									
ZZZZZZ			11:56																									
ZZZZZZ			11:58																									
ZZZZZZ			12:00																									
ZZZZZZ			12:02																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 03/25/2017 08:25 End Date: 03/25/2017 15:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			12:05																									
CCV 240-271832/10-A			12:07																									
CCB 240-271832/11-A			12:08																									
ZZZZZZ			12:11																									
ZZZZZZ			12:13																									
ZZZZZZ			12:15																									
ZZZZZZ			12:17																									
ZZZZZZ			12:19																									
ZZZZZZ			12:21																									
ZZZZZZ			12:23																									
ZZZZZZ			12:25																									
ZZZZZZ			12:27																									
ZZZZZZ			12:29																									
CCV 240-271832/10-A			12:31																									
CCB 240-271832/11-A			12:33																									
ZZZZZZ			12:36																									
ZZZZZZ			12:38																									
ZZZZZZ			12:39																									
ZZZZZZ			12:41																									
ZZZZZZ			12:43																									
ZZZZZZ			12:45																									
ZZZZZZ			12:47																									
ZZZZZZ			12:49																									
ZZZZZZ			12:51																									
ZZZZZZ			12:53																									
CCV 240-271832/10-A	1		12:55	X																								
CCB 240-271832/11-A	1		12:57	X																								
ZZZZZZ			12:59																									
ZZZZZZ			13:01																									
ZZZZZZ			13:03																									
ZZZZZZ			13:05																									
ZZZZZZ			13:07																									
ZZZZZZ			13:09																									
MB 240-271845/1-A	1	T	13:11	X																								
LCS 240-271845/2-A	1	T	13:13	X																								
ZZZZZZ			13:15																									
240-77127-E-1-E MS	1	D	13:17	X																								
CCV 240-271832/10-A	1		13:19	X																								
CCB 240-271832/11-A	1		13:21	X																								
240-77127-E-1-F MSD	1	D	13:24	X																								
ZZZZZZ			13:26																									
ZZZZZZ			13:28																									

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 03/25/2017 08:25 End Date: 03/25/2017 15:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			13:30																									
ZZZZZZ			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:41																									
CCV 240-271832/10-A	1		13:43	X																								
CCB 240-271832/11-A	1		13:45	X																								
ZZZZZZ			13:48																									
ZZZZZZ			13:50																									
ZZZZZZ			13:52																									
240-77152-2	1	T	13:54	X																								
240-77152-3	1	T	13:56	X																								
ZZZZZZ			13:58																									
ZZZZZZ			13:59																									
ZZZZZZ			14:01																									
ZZZZZZ			14:03																									
ZZZZZZ			14:06																									
CCV 240-271832/10-A	1		14:08	X																								
CCB 240-271832/11-A	1		14:10	X																								
ZZZZZZ			14:12																									
ZZZZZZ			14:14																									
ZZZZZZ			14:16																									
ZZZZZZ			14:18																									
ZZZZZZ			14:20																									
ZZZZZZ			14:22																									
ZZZZZZ			14:24																									
ZZZZZZ			14:26																									
ZZZZZZ			14:28																									
ZZZZZZ			14:30																									
CCV 240-271832/10-A			14:32																									
CCB 240-271832/11-A			14:34																									
ZZZZZZ			14:36																									
ZZZZZZ			14:38																									
ZZZZZZ			14:40																									
ZZZZZZ			14:42																									
ZZZZZZ			14:44																									
ZZZZZZ			14:46																									
ZZZZZZ			14:48																									
ZZZZZZ			14:50																									
ZZZZZZ			14:52																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 03/25/2017 08:25 End Date: 03/25/2017 15:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			14:54																									
CCV 240-271832/10-A			14:56																									
CCB 240-271832/11-A			14:58																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
ZZZZZZ			15:07																									
ZZZZZZ			15:09																									
ZZZZZZ			15:11																									
ZZZZZZ			15:13																									
ZZZZZZ			15:15																									
ZZZZZZ			15:17																									
ZZZZZZ			15:19																									
CCV 240-271832/10-A			15:21																									
CCB 240-271832/11-A			15:23																									
ZZZZZZ			15:26																									
ZZZZZZ			15:28																									
ZZZZZZ			15:30																									
ZZZZZZ			15:31																									
ZZZZZZ			15:33																									
CCV 240-271832/10-A			15:35																									
CCB 240-271832/11-A			15:37																									
ZZZZZZ			15:40																									
CCV 240-271832/10-A			15:42																									
CCB 240-271832/11-A			15:44																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/27/2017 End Date: 03/27/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-272157/3 I	09:45	100		101		101		97		99	
STD2 240-272157/4 I	09:49	101		101		103		94		95	
STD3 240-272157/5 I	09:53	98		101		99		92		93	
STD4 240-272157/6 I	09:57	100		103		100		100		100	
ICV 240-272157/7	10:02	99		100		101		92		94	
ICB 240-272157/8	10:06	100		100		101		100		100	
ICVL 240-272157/9	10:10	101		101		101		100		100	
ICSA 240-272157/10	10:15	92		96		95		87		90	
ICSAB 240-272157/11	10:19	87		93		92		86		88	
CCV 240-272157/133	18:54	73		85		87		81		82	
CCB 240-272157/134	18:58	75		83		88		87		85	
MB 240-271839/1-A	19:41	68		81		84		83		80	
CCV 240-272157/145	19:45	69		78		81		74		76	
CCB 240-272157/146	19:49	70		78		81		83		81	
LCS 240-271839/27-A	19:53	72		84		89		82		80	
240-77145-G-1-A SD	20:02	75		88		91		89		89	
240-77145-G-1-B MS	20:10	74		89		96		87		85	
240-77145-G-1-C MSD	20:14	73		89		97		88		85	
240-77152-2	20:22	72		89		94		86		86	
240-77152-3	20:26	69		86		90		85		84	
CCV 240-272157/156	20:31	73		86		89		81		81	
CCB 240-272157/157	20:35	72		81		86		85		83	
CCVL 240-272157/158	20:39	71		81		85		84		83	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/27/2017 End Date: 03/27/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-272157/3 I	09:45	98		99		99					
STD2 240-272157/4 I	09:49	97		98		93					
STD3 240-272157/5 I	09:53	95		94		89					
STD4 240-272157/6 I	09:57	98		97		96					
ICV 240-272157/7	10:02	95		94		92					
ICB 240-272157/8	10:06	99		98		97					
ICVL 240-272157/9	10:10	98		99		98					
ICSA 240-272157/10	10:15	91		90		88					
ICSAB 240-272157/11	10:19	90		89		86					
CCV 240-272157/133	18:54	83		83		74					
CCB 240-272157/134	18:58	86		85		81					
MB 240-271839/1-A	19:41	82		82		80					
CCV 240-272157/145	19:45	78		78		70					
CCB 240-272157/146	19:49	81		80		78					
LCS 240-271839/27-A	19:53	84		84		81					
240-77145-G-1-A SD	20:02	88		88		86					
240-77145-G-1-B MS	20:10	89		88		82					
240-77145-G-1-C MSD	20:14	88		88		82					
240-77152-2	20:22	88		87		81					
240-77152-3	20:26	86		86		80					
CCV 240-272157/156	20:31	83		83		74					
CCB 240-272157/157	20:35	83		81		79					
CCVL 240-272157/158	20:39	82		81		78					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Batch Number: 271839 Batch Start Date: 03/24/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 03/24/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00028	MTICPMSA 00030	MTICPMSB 00030	MTTMHCL 00148
MB 240-271839/1		3005A, 6020A		50 mL	50 mL				2.5 mL
240-77145-G-1 MS		3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77145-G-1 MSD		3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77152-F-2	MRC-MW74A-032217	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-77152-F-3	MRC-MW74B-032217	3005A, 6020A	R	50 mL	50 mL				2.5 mL
LCS 240-271839/27		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00112					
MB 240-271839/1		3005A, 6020A		1 mL					
240-77145-G-1 MS		3005A, 6020A	R	1 mL					
240-77145-G-1 MSD		3005A, 6020A	R	1 mL					
240-77152-F-2	MRC-MW74A-032217	3005A, 6020A	R	1 mL					
240-77152-F-3	MRC-MW74B-032217	3005A, 6020A	R	1 mL					
LCS 240-271839/27		3005A, 6020A		1 mL					

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB3
Pipette ID	MP1-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Batch Number: 271832 Batch Start Date: 03/24/17 07:40 Batch Analyst: Dillon, William K

Batch Method: 7470A Batch End Date: 03/24/17 09:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00058	MTH2S04 00039	MTHGCALW 01461	MTHgICV_00001 00152
ICV 240-271832/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-271832/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-271832/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-271832/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-271832/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00127	MTTMHNO3 00112				
ICV 240-271832/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-271832/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-271832/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-271832/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-271832/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Hot Block ID	A1
Pipette ID	A6 MP1 MP2

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77152-1

SDG No.:

Batch Number: 271845 Batch Start Date: 03/24/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 03/24/17 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00058	MTH2S04 00039	MTHGCALW 01461	MTKMN04W 00127
MB 240-271845/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-271845/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-77127-E-1 MS		7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77127-E-1 MSD		7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77152-F-2	MRC-MW74A-032217	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-77152-F-3	MRC-MW74B-032217	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00112					
MB 240-271845/1		7470A, 7470A		1.25 mL					
LCS 240-271845/2		7470A, 7470A		1.25 mL					
240-77127-E-1 MS		7470A, 7470A	D	1.25 mL					
240-77127-E-1 MSD		7470A, 7470A	D	1.25 mL					
240-77152-F-2	MRC-MW74A-032217	7470A, 7470A	T	1.25 mL					
240-77152-F-3	MRC-MW74B-032217	7470A, 7470A	T	1.25 mL					

Batch Notes	
Batch Comment	take out temps within range
Hot Block ID	c2
Pipette ID	MP2-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **MAY 8, 2017**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs, 1,4-DIOXANE, PCBs, SELECT METALS**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC)
GROUNDWATER
SDG 240-77205-1

SAMPLES: 3/Aqueous
VOCs
MRC-MW104A-032317 MRC-MW104B-032317 MRC-MW73B-032317

2/Aqueous
1,4-Dioxane, Select Metals
MRC-MW73A-032317 MRC-MW73B-032317

2/Aqueous
PCBs
MRC-MW104A-032317 MRC-MW104B-032317

1/Trip Blank
TB-032317

Overview

The sample set for LMC-MRC Groundwater, SDG 240-77205-1 consisted of four (4) aqueous environmental samples and one (1) trip blank. Samples MRC-MW104A-032317, MRC-MW104B-032317, MRC-MW73B-032317 and TB-032317 were analyzed for volatile organic carbons (VOCs). Samples MRC-MW73A-032317 and MRC-MW73B-032317 were analyzed for 1,4-Dioxane and select metals. Samples MRC-MW104A-032317 and MRC-MW104B-032317 were analyzed for polychlorinated biphenyls (PCBs). No field duplicate sample pairs were included in this SDG.

The samples were collected by Tetra Tech, Inc. on March 23, 2017 and analyzed by TestAmerica-Canton, TestAmerica-Burlington and TestAmerica-Savannah. All analyses were conducted in accordance with SW-846 Methods 8260C, 6020A and 7470A and EPA methods 522 and 680 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/preparation/trip blank results, Interference Check Sample (ICS) recoveries, surrogate spike recoveries, laboratory control sample / laboratory control sample duplicate results, matrix spike / matrix spike duplicate recoveries, ICP serial dilution results, internal standard areas and recoveries, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The VOC initial calibration verification performed on instrument A3UX11 on 03/29/17 @ 15:09 had a percent difference (%D) for acetone which exceeded the quality control limit. All samples were affected. The non-detected results reported for acetone in the affected samples were qualified as

estimated, (UJ).

- The VOC continuing calibration performed on instrument A3UX11 on 03/31/17 @ 10:13 had percent differences (%Ds) for bromomethane, 2-butanone, 2-hexanone and bromoform which exceeded the quality control limits. Samples MRC-MW104A-032317, MRC-MW104B-032317 and MRC-MW73B-032317 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

- The following analytes were detected in the laboratory instrument/method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Reporting Limit (RL) > or <
Antimony(1)	1.21 ug/L	< RL
Cadmium(1)	0.064 ug/L	< RL
Cobalt(1)	0.035 ug/L	< RL
Molybdenum(1)	0.849 ug/L	< RL
Beryllium(1)	0.064 ug/L	< RL
Barium(2)	0.700 ug/L	< RL
Copper(2)	0.372 ug/L	< RL

(1) Maximum concentration present in an instrument blank.
(2) Maximum concentration present in a method blank.

The detected results reported below the RL for antimony and molybdenum were qualified as non-detected, (U).

- The internal standard recoveries for Lithium-6, Scandium-45, Rhodium-103 and Indium-115 were below the quality control limit for sample MRC-MW73A-032317. The detected and non-detected results reported for arsenic, barium, cadmium, chromium, cobalt, copper, nickel, selenium, silver, vanadium and zinc were qualified as estimated (J) and (UJ) respectively.

- The internal standard recoveries for Lithium-6, Scandium-45, Rhodium-103, Indium-115, Terbium-159, Holmium-165 and Bismuth-209 were below the quality control limit for sample MRC-MW73B-032317. The detected and non-detected results reported for arsenic, barium, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, silver, thallium, vanadium and zinc were qualified as estimated (J) and (UJ) respectively.

- Detected results reported below the RL but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Methylene chloride was detected in the method blank at a concentration of 1.92 ug/L. Sample TB-032317 was affected. Trip blanks are not qualified for laboratory blank contamination.

The continuing calibration verification internal standard area was greater than the quality control limit for Chrysene-d12 for sample MRC-MW104A-032317. No validation actions were warranted as all sample results were nondetects.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Several CCV %Ds were noncompliant for the VOC fraction. Contaminants were detected in the laboratory preparation/method/field blanks. Several internal standard recoveries were noncompliant in the metals fraction.

Other Factors Affecting Data Quality: Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and the "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-MW104A-032317			MRC-MW104B-032317			MRC-MW73B-032317			TB-032317		
SDG: 240-77205-1	LAB_ID	240-77205-1			240-77205-2			240-77205-4			240-77205-5		
FRACTION: OV	SAMP_DATE	3/23/2017			3/23/2017			3/23/2017			3/23/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	UJ	C	1	UJ	C	1	UJ	C	1	U	
2-HEXANONE		1.2	UJ	C	1.2	UJ	C	1.2	UJ	C	1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	UJ	C	1.8	UJ	C	1.8	UJ	C	1.8	UJ	C
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	UJ	C	0.43	UJ	C	0.43	UJ	C	0.43	U	
BROMOMETHANE		0.42	UJ	C	0.42	UJ	C	0.42	UJ	C	0.42	U	
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.79	J	P	0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW104A-032317			MRC-MW104B-032317			MRC-MW73B-032317			TB-032317		
SDG: 240-77205-1	LAB_ID	240-77205-1			240-77205-2			240-77205-4			240-77205-5		
FRACTION: OV	SAMP_DATE	3/23/2017			3/23/2017			3/23/2017			3/23/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		0.33	U		30			0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW73A-032317			MRC-MW73B-032317		
SDG: 240-77205-1	LAB_ID	240-77205-3			240-77205-4		
FRACTION: OS	SAMP_DATE	3/23/2017			3/23/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.057	U		0.31		

PROJ_NO: 07776	NSAMPLE	MRC-MW104A-032317			MRC-MW104B-032317		
SDG: 240-77205-1	LAB_ID	240-77205-1			240-77205-2		
FRACTION: PCB	SAMP_DATE	3/23/2017			3/23/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		0.067	U		0.07	U	
DICHLOROBIPHENYLS		0.0052	U		0.0054	U	
HEPTACHLOROBIPHENYLS		0.029	U		0.03	U	
HEXACHLOROBIPHENYLS		0.014	U		0.015	U	
MONOCHLOROBIPHENYLS		0.0054	U		0.0056	U	
NONACHLOROBIPHENYLS		0.047	U		0.049	U	
OCTACHLOROBIPHENYLS		0.036	U		0.038	U	
PENTACHLOROBIPHENYLS		0.013	U		0.014	U	
TETRACHLOROBIPHENYLS		0.012	U		0.013	U	
TRICHLOROBIPHENYLS		0.0062	U		0.0065	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW73A-032317			MRC-MW73B-032317		
SDG: 240-77205-1	LAB_ID	240-77205-3			240-77205-4		
FRACTION: M	SAMP_DATE	3/23/2017			3/23/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		2.4			0.63	U	A
ARSENIC		1.1	J	NP	0.35	UJ	N
BARIUM		37	J	N	39	J	N
BERYLLIUM		0.4	U		2.2		
CADMIUM		0.31	UJ	N	0.31	UJ	N
CHROMIUM		3.7	J	N	0.45	J	NP
COBALT		1.6	J	N	19	J	N
COPPER		2.8	J	N	6.7	J	N
LEAD		1.3			0.41	J	NP
MERCURY		0.13	U		0.13	U	
MOLYBDENUM		0.94	U	A	0.51	UJ	N
NICKEL		4.5	J	N	25	J	N
SELENIUM		3	J	NP	0.98	J	NP
SILVER		0.03	UJ	N	0.03	UJ	N
THALLIUM		0.28	U		0.28	UJ	N
VANADIUM		5.7	J	N	0.82	J	NP
ZINC		13	J	NP	51	J	N

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: MRC-MW104A-032317 | Lab Sample ID: 240-77205-1

Matrix: Water | Lab File ID: UXJ1128.D

Analysis Method: 8260C | Date Collected: 03/23/2017 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 13:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: MRC-MW104A-032317 | Lab Sample ID: 240-77205-1

Matrix: Water | Lab File ID: UXJ1128.D

Analysis Method: 8260C | Date Collected: 03/23/2017 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 13:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-124
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	105		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: MRC-MW104B-032317 | Lab Sample ID: 240-77205-2

Matrix: Water | Lab File ID: UXJ1129.D

Analysis Method: 8260C | Date Collected: 03/23/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 13:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: MRC-MW104B-032317 | Lab Sample ID: 240-77205-2

Matrix: Water | Lab File ID: UXJ1129.D

Analysis Method: 8260C | Date Collected: 03/23/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 13:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: MRC-MW73B-032317 | Lab Sample ID: 240-77205-4

Matrix: Water | Lab File ID: UXJ1130.D

Analysis Method: 8260C | Date Collected: 03/23/2017 14:20

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 14:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.79	J	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: MRC-MW73B-032317 | Lab Sample ID: 240-77205-4

Matrix: Water | Lab File ID: UXJ1130.D

Analysis Method: 8260C | Date Collected: 03/23/2017 14:20

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 14:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	30		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-124
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: TB-032317 | Lab Sample ID: 240-77205-5

Matrix: Water | Lab File ID: UXJ1082.D

Analysis Method: 8260C | Date Collected: 03/23/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 19:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: TB-032317 | Lab Sample ID: 240-77205-5

Matrix: Water | Lab File ID: UXJ1082.D

Analysis Method: 8260C | Date Collected: 03/23/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 19:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-132

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77205-1

SDG No.:

Client Sample ID: MRC-MW73A-032317 | Lab Sample ID: 240-77205-3

Matrix: Water | Lab File ID: Z24494_25.D

Analysis Method: 522 | Date Collected: 03/23/2017 12:05

Extract. Method: 3535A | Date Extracted: 03/28/2017 17:53

Sample wt/vol: 100(mL) | Date Analyzed: 03/29/2017 20:10

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115280 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	107		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77205-1

SDG No.:

Client Sample ID: MRC-MW73B-032317 | Lab Sample ID: 240-77205-4

Matrix: Water | Lab File ID: Z24494_27.D

Analysis Method: 522 | Date Collected: 03/23/2017 14:20

Extract. Method: 3535A | Date Extracted: 03/28/2017 17:53

Sample wt/vol: 100(mL) | Date Analyzed: 03/29/2017 20:44

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115280 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.31		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	100		46-130

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77205-1

SDG No.:

Client Sample ID: MRC-MW104A-032317 | Lab Sample ID: 240-77205-1

Matrix: Water | Lab File ID: xc3112.D

Analysis Method: 680 | Date Collected: 03/23/2017 09:30

Extract. Method: 680 | Date Extracted: 03/27/2017 12:57

Sample wt/vol: 1045.8(mL) | Date Analyzed: 03/31/2017 15:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 474122 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.036	U	0.29	0.036
27323-18-8	Monochlorobiphenyl	0.0054	U	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.012	U	0.19	0.012
25323-68-6	Trichlorobiphenyl	0.0062	U	0.096	0.0062

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	76		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77205-1

SDG No.:

Client Sample ID: MRC-MW104B-032317 | Lab Sample ID: 240-77205-2

Matrix: Water | Lab File ID: xc3113.D

Analysis Method: 680 | Date Collected: 03/23/2017 10:35

Extract. Method: 680 | Date Extracted: 03/27/2017 12:57

Sample wt/vol: 1003.7(mL) | Date Analyzed: 03/31/2017 16:23

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 474122 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.0054	U	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0065	U	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	86		25-113

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW73A-032317 Lab Sample ID: 240-77205-3

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG ID.:

Matrix: Water Date Sampled: 03/23/2017 12:05

Reporting Basis: WET Date Received: 03/24/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW73A-032317 Lab Sample ID: 240-77205-3

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG ID.:

Matrix: Water Date Sampled: 03/23/2017 12:05

Reporting Basis: WET Date Received: 03/24/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.4	2.0	0.27	ug/L			1	6020A
7440-38-2	Arsenic	1.1	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	37	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	1.6	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	3.7	2.0	0.26	ug/L			1	6020A
7440-50-8	Copper	2.8	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.94	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	4.5	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	1.3	1.0	0.16	ug/L			1	6020A
7782-49-2	Selenium	3.0	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	5.7	5.0	0.54	ug/L			1	6020A
7440-66-6	Zinc	13	20	6.2	ug/L	J		1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW73B-032317 Lab Sample ID: 240-77205-4

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG ID.:

Matrix: Water Date Sampled: 03/23/2017 14:20

Reporting Basis: WET Date Received: 03/24/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW73B-032317 Lab Sample ID: 240-77205-4

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG ID.:

Matrix: Water Date Sampled: 03/23/2017 14:20

Reporting Basis: WET Date Received: 03/24/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.63	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	0.35	5.0	0.35	ug/L	U		1	6020A
7440-39-3	Barium	39	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	2.2	1.0	0.40	ug/L			1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	19	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.45	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	6.7	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	25	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.41	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.98	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	51	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

Appendix C

Support Documentation

180325

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

3.8/C35

Chain of Custody Record

BALTIMORE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: S. Cameron	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.2
Client Contact: Mr. Stuart Cameron	Phone: (703) 342-8389	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #: 112IC07776
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: (301) 528-3002	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Block E Middle River, MD	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Total Metals	1,4-Dioxane	PCB Homologs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A					
MRC-MW104A-032317	3/23/17	0930	G	Water			3			2		
MRC-MW104B-032317	↓	1035	G	Water			3			2		
MRC-MW73A-032317	↓	1205	G	Water				1	2			
MRC-MW73B-032317	↓	1420	G	Water			3	1	2			
TB-032317	—	—	—	Water			2					

240-77205 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	3-23-17/1448		[signature]	3/23/17 1448	TA
[signature]	3/23/17 1600	TA	POP	3-24-17 930	TAL

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-77205-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 522 1,4-Dioxane analysis was performed at the TestAmerica Burlington Laboratory. The 680 Polychlorinated Biphenyls analysis was performed at the TestAmerica Savannah Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 3/24/2017 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.5º C.

1,4-DIOXANE
Samples MRC-MW73A-032317 (240-77205-3) and MRC-MW73B-032317 (240-77205-4) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 03/28/2017 and analyzed on 03/29/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples MRC-MW104A-032317 (240-77205-1), MRC-MW104B-032317 (240-77205-2), MRC-MW73B-032317 (240-77205-4) and TB-032317 (240-77205-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/30/2017 and 03/31/2017.

Methylene Chloride was detected in method blank MB 240-272601/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The continuing calibration verification (CCV) for analytical batch 272768 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required: MRC-MW104A-032317 (240-77205-1), MRC-MW104B-032317 (240-77205-2) and MRC-MW73B-032317 (240-77205-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)
Samples MRC-MW104A-032317 (240-77205-1) and MRC-MW104B-032317 (240-77205-2) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 03/27/2017 and analyzed on 03/31/2017.

The internal standard response for the following sample was outside of acceptance limits when compared to the area of the CCVIS (continuing calibration verification internal standard). The 680 method allows that the sample also be compared to the average internal

standard area of the calibration (ICISAV). Due to limitations in the software, when the areas of the sample are out of control for either the CCVIS or the ICISAV both are flagged. Although a * flag appears on the data, the sample is within the area range for the average internal standard area of the calibration (ICISAV): MRC-MW104A-032317 (240-77205-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)

Samples MRC-MW73A-032317 (240-77205-3) and MRC-MW73B-032317 (240-77205-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 03/28/2017 and analyzed on 03/29/2017 and 03/30/2017.

Barium, Copper and Iron were detected in method blank MB 240-272184/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY

Samples MRC-MW73A-032317 (240-77205-3) and MRC-MW73B-032317 (240-77205-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 03/28/2017 and analyzed on 03/29/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-77205-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
680	Polychlorinated Biphenyls (PCBs) (GC/MS)	EPA	TAL SAV
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-77205-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-77205-1	MRC-MW104A-032317	Water	03/23/17 09:30	03/24/17 09:30
240-77205-2	MRC-MW104B-032317	Water	03/23/17 10:35	03/24/17 09:30
240-77205-3	MRC-MW73A-032317	Water	03/23/17 12:05	03/24/17 09:30
240-77205-4	MRC-MW73B-032317	Water	03/23/17 14:20	03/24/17 09:30
240-77205-5	TB-032317	Water	03/23/17 00:00	03/24/17 09:30

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MRC-MW104A-032317	240-77205-1	103	99	104	105
MRC-MW104B-032317	240-77205-2	101	96	102	101
MRC-MW73B-032317	240-77205-4	102	98	101	101
TB-032317	240-77205-5	96	92	96	94
	MB 240-272601/6	101	95	101	102
	MB 240-272768/6	97	93	99	100
	LCS 240-272601/4	98	99	100	101
	LCS 240-272768/4	99	99	98	98
	240-77041-E-2 MS	100	97	99	100
	200-37906-B-3 MS	99	98	99	99
	240-77041-H-2 MSD	98	97	99	100
	200-37906-B-3 MSD	106	105	103	103

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1059.D

Lab ID: LCS 240-272601/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.85	99	79-133	
1,1,2,2-Tetrachloroethane	10.0	9.75	97	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.1	101	65-151	
1,1,2-Trichloroethane	10.0	9.88	99	80-120	
1,1-Dichloroethane	10.0	9.27	93	77-121	
1,1-Dichloroethene	10.0	9.80	98	70-141	
1,2,4-Trichlorobenzene	10.0	8.97	90	53-137	
1,2-Dibromo-3-Chloropropane	10.0	10.3	103	46-140	
Ethylene Dibromide	10.0	9.32	93	80-126	
1,2-Dichlorobenzene	10.0	9.25	93	80-120	
1,2-Dichloroethane	10.0	9.45	95	76-130	
1,2-Dichloropropane	10.0	9.54	95	79-121	
1,3-Dichlorobenzene	10.0	9.18	92	80-120	
1,4-Dichlorobenzene	10.0	9.14	91	80-120	
2-Butanone (MEK)	20.0	16.1	80	54-122	
2-Hexanone	20.0	18.0	90	56-124	
4-Methyl-2-pentanone (MIBK)	20.0	18.9	95	60-131	
Acetone	20.0	11.0	55	46-120	
Benzene	10.0	9.41	94	80-120	
Dichlorobromomethane	10.0	9.69	97	76-125	
Bromoform	10.0	9.04	90	52-157	
Bromomethane	10.0	8.35	84	24-160	
Carbon disulfide	10.0	10.0	100	58-160	
Carbon tetrachloride	10.0	10.0	100	69-149	
Chlorobenzene	10.0	9.35	94	80-120	
Chloroethane	10.0	8.58	86	24-147	
Chloroform	10.0	9.36	94	80-120	
Chloromethane	10.0	7.74	77	50-135	
cis-1,2-Dichloroethene	10.0	9.67	97	80-120	
cis-1,3-Dichloropropene	10.0	9.94	99	75-120	
Cyclohexane	10.0	11.5	115	66-135	
Chlorodibromomethane	10.0	10.1	101	68-131	
Dichlorodifluoromethane	10.0	7.69	77	32-140	
Ethylbenzene	10.0	9.53	95	80-120	
Isopropylbenzene	10.0	9.42	94	80-120	
Methyl acetate	20.0	19.0	95	65-124	
Methyl tert-butyl ether	10.0	9.89	99	75-126	
Methylcyclohexane	10.0	10.9	109	71-122	
Methylene Chloride	10.0	11.2	112	68-136	
Styrene	10.0	9.37	94	80-120	
Tetrachloroethene	10.0	9.64	96	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1059.D

Lab ID: LCS 240-272601/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	10.0	9.36	94	80-121	
trans-1,2-Dichloroethene	10.0	9.48	95	80-123	
trans-1,3-Dichloropropene	10.0	9.49	95	65-120	
Trichloroethene	10.0	9.53	95	80-122	
Trichlorofluoromethane	10.0	8.14	81	56-161	
Vinyl chloride	10.0	7.61	76	60-129	
Xylenes, Total	20.0	18.9	95	80-120	
m-Xylene & p-Xylene	10.0	9.43	94	80-120	
o-Xylene	10.0	9.50	95	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1121.D

Lab ID: LCS 240-272768/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.89	99	79-133	
1,1,2,2-Tetrachloroethane	10.0	9.54	95	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	8.44	84	65-151	
1,1,2-Trichloroethane	10.0	10.1	101	80-120	
1,1-Dichloroethane	10.0	9.75	97	77-121	
1,1-Dichloroethene	10.0	10.0	100	70-141	
1,2,4-Trichlorobenzene	10.0	9.32	93	53-137	
1,2-Dibromo-3-Chloropropane	10.0	8.74	87	46-140	
Ethylene Dibromide	10.0	9.60	96	80-126	
1,2-Dichlorobenzene	10.0	9.72	97	80-120	
1,2-Dichloroethane	10.0	9.96	100	76-130	
1,2-Dichloropropane	10.0	9.96	100	79-121	
1,3-Dichlorobenzene	10.0	9.82	98	80-120	
1,4-Dichlorobenzene	10.0	9.76	98	80-120	
2-Butanone (MEK)	20.0	15.9	80	54-122	
2-Hexanone	20.0	15.8	79	56-124	
4-Methyl-2-pentanone (MIBK)	20.0	18.4	92	60-131	
Acetone	20.0	11.8	59	46-120	
Benzene	10.0	9.75	97	80-120	
Dichlorobromomethane	10.0	9.62	96	76-125	
Bromoform	10.0	6.16	62	52-157	
Bromomethane	10.0	7.11	71	24-160	
Carbon disulfide	10.0	9.88	99	58-160	
Carbon tetrachloride	10.0	9.65	97	69-149	
Chlorobenzene	10.0	9.78	98	80-120	
Chloroethane	10.0	7.86	79	24-147	
Chloroform	10.0	9.93	99	80-120	
Chloromethane	10.0	7.96	80	50-135	
cis-1,2-Dichloroethene	10.0	10.1	101	80-120	
cis-1,3-Dichloropropene	10.0	9.28	93	75-120	
Cyclohexane	10.0	9.57	96	66-135	
Chlorodibromomethane	10.0	8.55	85	68-131	
Dichlorodifluoromethane	10.0	8.23	82	32-140	
Ethylbenzene	10.0	9.74	97	80-120	
Isopropylbenzene	10.0	9.79	98	80-120	
Methyl acetate	20.0	18.4	92	65-124	
Methyl tert-butyl ether	10.0	10.1	101	75-126	
Methylcyclohexane	10.0	9.02	90	71-122	
Methylene Chloride	10.0	10.5	105	68-136	
Styrene	10.0	9.77	98	80-120	
Tetrachloroethene	10.0	10.0	100	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1121.D

Lab ID: LCS 240-272768/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	10.0	9.88	99	80-121	
trans-1,2-Dichloroethene	10.0	9.76	98	80-123	
trans-1,3-Dichloropropene	10.0	8.51	85	65-120	
Trichloroethene	10.0	10.3	103	80-122	
Trichlorofluoromethane	10.0	8.80	88	56-161	
Vinyl chloride	10.0	8.43	84	60-129	
Xylenes, Total	20.0	19.6	98	80-120	
m-Xylene & p-Xylene	10.0	9.72	97	80-120	
o-Xylene	10.0	9.85	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1084.D

Lab ID: 240-77041-E-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Trichloroethene	10.0	0.33 U	8.80	88	58-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1145.D

Lab ID: 200-37906-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	33.3	0.77 U	31.1	93	55-150	
1,1,2,2-Tetrachloroethane	33.3	1.1 U	29.6	89	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	33.3	1.4 U	21.7	65	41-149	
1,1,2-Trichloroethane	33.3	1.1 U	32.9	99	65-130	
1,1-Dichloroethane	33.3	0.83 U	30.9	93	57-135	
1,1-Dichloroethene	33.3	0.90 U	31.5	94	50-156	
1,2,4-Trichlorobenzene	33.3	0.90 U	28.3	85	35-140	
1,2-Dibromo-3-Chloropropane	33.3	1.6 U	26.6	80	37-139	
Ethylene Dibromide	33.3	0.77 U	30.3	91	64-137	
1,2-Dichlorobenzene	33.3	0.87 U	30.8	92	62-123	
1,2-Dichloroethane	33.3	1.0 U	31.5	95	62-137	
1,2-Dichloropropane	33.3	1.0 U	31.2	94	66-130	
1,3-Dichlorobenzene	33.3	1.1 U	30.6	92	59-122	
1,4-Dichlorobenzene	33.3	0.77 U	30.4	91	60-122	
2-Butanone (MEK)	66.6	3.4 U	47.0	71	38-123	
2-Hexanone	66.6	4.1 U	48.0	72	41-135	
4-Methyl-2-pentanone (MIBK)	66.6	2.4 U	55.4	83	43-143	
Acetone	66.6	5.9 U	38.9	58	28-120	
Benzene	33.3	0.93 U	30.8	93	67-126	
Dichlorobromomethane	33.3	1.0 U	29.3	88	64-127	
Bromoform	33.3	1.4 U	19.3	58	40-149	
Bromomethane	33.3	1.4 U	24.9	75	10-169	
Carbon disulfide	33.3	1.1 U	29.8	89	43-172	
Carbon tetrachloride	33.3	1.2 U	29.3	88	51-154	
Chlorobenzene	33.3	1.1 U	30.5	92	58-128	
Chloroethane	33.3	1.4 U	26.1	78	10-162	
Chloroform	33.3	1.0 U	31.9	96	67-133	
Chloromethane	33.3	1.4 U	27.0	81	30-143	
cis-1,2-Dichloroethene	33.3	66	101	104	64-134	
cis-1,3-Dichloropropene	33.3	0.87 U	28.4	85	58-120	
Chlorodibromomethane	33.3	0.83 U	26.0	78	56-132	
Dichlorodifluoromethane	33.3	1.7 U	24.0	72	16-140	
Ethylbenzene	33.3	0.87 U	30.2	91	66-123	
Isopropylbenzene	33.3	0.70 U	29.8	89	57-132	
Methyl tert-butyl ether	33.3	0.90 U	32.6	98	50-137	
Methylene Chloride	33.3	1.8 U	31.8	96	48-138	
Styrene	33.3	0.77 U	30.2	91	62-131	
Tetrachloroethene	33.3	15	44.1	89	54-138	
Toluene	33.3	0.77 U	30.6	92	63-130	
trans-1,2-Dichloroethene	33.3	3.4	31.1	83	70-137	
trans-1,3-Dichloropropene	33.3	1.0 U	25.3	76	48-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1145.D

Lab ID: 200-37906-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Trichloroethene	33.3	7.9	39.0	94	58-139	
Trichlorofluoromethane	33.3	1.7 U	28.8	86	26-175	
Vinyl chloride	33.3	1.5 U	28.0	84	38-147	
Xylenes, Total	66.6	0.80 U	60.6	91	60-126	
m-Xylene & p-Xylene	33.3	0.80 U	29.7	89	58-127	
o-Xylene	33.3	0.93 U	30.9	93	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1085.D

Lab ID: 240-77041-H-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Trichloroethene	10.0	9.63	96	9	35	58-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1146.D

Lab ID: 200-37906-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	33.3	33.1	99	6	35	55-150	
1,1,2,2-Tetrachloroethane	33.3	31.8	95	7	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	33.3	26.9	81	21	35	41-149	
1,1,2-Trichloroethane	33.3	34.5	104	5	35	65-130	
1,1-Dichloroethane	33.3	33.2	100	7	35	57-135	
1,1-Dichloroethene	33.3	31.9	96	2	35	50-156	
1,2,4-Trichlorobenzene	33.3	29.4	88	4	35	35-140	
1,2-Dibromo-3-Chloropropane	33.3	28.5	86	7	35	37-139	
Ethylene Dibromide	33.3	32.2	97	6	35	64-137	
1,2-Dichlorobenzene	33.3	33.5	101	9	35	62-123	
1,2-Dichloroethane	33.3	34.0	102	7	35	62-137	
1,2-Dichloropropane	33.3	33.9	102	8	35	66-130	
1,3-Dichlorobenzene	33.3	32.0	96	4	35	59-122	
1,4-Dichlorobenzene	33.3	32.6	98	7	35	60-122	
2-Butanone (MEK)	66.6	51.4	77	9	35	38-123	
2-Hexanone	66.6	50.7	76	5	35	41-135	
4-Methyl-2-pentanone (MIBK)	66.6	58.4	88	5	35	43-143	
Acetone	66.6	43.6	65	11	35	28-120	
Benzene	33.3	33.6	101	9	31	67-126	
Dichlorobromomethane	33.3	32.7	98	11	35	64-127	
Bromoform	33.3	20.4	61	5	35	40-149	
Bromomethane	33.3	27.3	82	9	35	10-169	
Carbon disulfide	33.3	30.8	92	3	35	43-172	
Carbon tetrachloride	33.3	31.9	96	8	35	51-154	
Chlorobenzene	33.3	32.9	99	7	35	58-128	
Chloroethane	33.3	28.3	85	8	35	10-162	
Chloroform	33.3	34.0	102	6	35	67-133	
Chloromethane	33.3	26.8	81	1	35	30-143	
cis-1,2-Dichloroethene	33.3	105	116	4	35	64-134	
cis-1,3-Dichloropropene	33.3	30.9	93	8	35	58-120	
Chlorodibromomethane	33.3	28.5	86	9	35	56-132	
Dichlorodifluoromethane	33.3	25.3	76	5	35	16-140	
Ethylbenzene	33.3	32.9	99	9	34	66-123	
Isopropylbenzene	33.3	32.0	96	7	35	57-132	
Methyl tert-butyl ether	33.3	35.1	105	7	35	50-137	
Methylene Chloride	33.3	34.1	102	7	35	48-138	
Styrene	33.3	32.0	96	6	35	62-131	
Tetrachloroethene	33.3	46.7	97	6	35	54-138	
Toluene	33.3	32.7	98	7	33	63-130	
trans-1,2-Dichloroethene	33.3	33.5	90	7	25	70-137	
trans-1,3-Dichloropropene	33.3	28.0	84	10	35	48-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1146.D

Lab ID: 200-37906-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Trichloroethene	33.3	41.6	101	6	35	58-139	
Trichlorofluoromethane	33.3	29.6	89	3	35	26-175	
Vinyl chloride	33.3	28.9	87	3	35	38-147	
Xylenes, Total	66.6	64.5	97	6	35	60-126	
m-Xylene & p-Xylene	33.3	32.0	96	7	35	58-127	
o-Xylene	33.3	32.5	98	5	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab File ID: UXJ1062.D Lab Sample ID: MB 240-272601/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX11 Date Analyzed: 03/30/2017 11:44

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-272601/4	UXJ1059.D	03/30/2017 10:36
TB-032317	240-77205-5	UXJ1082.D	03/30/2017 19:17
	240-77041-E-2 MS	UXJ1084.D	03/30/2017 20:02
	240-77041-H-2 MSD	UXJ1085.D	03/30/2017 20:25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272601/6

Matrix: Water | Lab File ID: UXJ1062.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272601/6

Matrix: Water | Lab File ID: UXJ1062.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/30/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272601 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	1.92		1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	102		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab File ID: UXJ1124.D Lab Sample ID: MB 240-272768/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX11 Date Analyzed: 03/31/2017 11:44

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-272768/4	UXJ1121.D	03/31/2017 10:35
MRC-MW104A-032317	240-77205-1	UXJ1128.D	03/31/2017 13:15
MRC-MW104B-032317	240-77205-2	UXJ1129.D	03/31/2017 13:38
MRC-MW73B-032317	240-77205-4	UXJ1130.D	03/31/2017 14:00
	200-37906-B-3 MS	UXJ1145.D	03/31/2017 19:41
	200-37906-B-3 MSD	UXJ1146.D	03/31/2017 20:04

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272768/6

Matrix: Water | Lab File ID: UXJ1124.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77205-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272768/6

Matrix: Water | Lab File ID: UXJ1124.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab File ID: BFB70329.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX11 BFB Injection Time: 09:21

Analysis Batch No.: 272388

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	43.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	97.7	
175	5.0 - 9.0 % of mass 174	6.7	(6.9) 1
176	95.0 - 101.0 % of mass 174	95.7	(97.9) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272388/2	UXJ1042.D	03/29/2017	09:53
	STD8260 240-272388/3	UXJ1043.D	03/29/2017	10:15
	STD8260 240-272388/4	UXJ1044.D	03/29/2017	10:38
	STD8260 240-272388/5	UXJ1045.D	03/29/2017	11:01
	STD8260 240-272388/6	UXJ1046.D	03/29/2017	11:24
	STD8260 240-272388/7	UXJ1047.D	03/29/2017	11:46
	ICV 240-272388/15	UXJ1055.D	03/29/2017	14:47
	ICV 240-272388/14	UXJ1056.D	03/29/2017	15:09

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77205-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272388/7	UXJ1047.D
Level 2	STD8260 240-272388/6	UXJ1046.D
Level 3	STD8260 240-272388/5	UXJ1045.D
Level 4	STD8260 240-272388/4	UXJ1044.D
Level 5	STD8260 240-272388/3	UXJ1043.D
Level 6	STD8260 240-272388/2	UXJ1042.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1603 0.1921	0.1584	0.1613	0.1577	0.2044	Ave		0.1724			0.1000	11.9		20.0			
Chloromethane	0.2491 0.2109	0.2162	0.2162	0.2125	0.2167	Ave		0.2203			0.1000	6.5		20.0			
Vinyl chloride	0.2103 0.2025	0.2093	0.2060	0.2048	0.2103	Ave		0.2072			0.1000	1.6		20.0			
Butadiene	0.2056 0.1636	0.2480	0.1949	0.1967	0.1922	Ave		0.2001				13.7		20.0			
Bromomethane	0.1553 0.0933	0.1256	0.1058	0.0931	0.0957	Lin1	0.0644	0.0913			0.0500				0.9990		0.9900
Chloroethane	0.0971 0.1004	0.0998	0.1019	0.1022	0.1044	Ave		0.1010			0.0500	2.5		20.0			
Dichlorofluoromethane	0.3749 0.2550	0.3438	0.2709	0.2723	0.2754	Ave		0.2987				16.2		20.0			
Trichlorofluoromethane	0.1860 0.2357	0.2264	0.2197	0.2191	0.2346	Ave		0.2202			0.1000	8.3		20.0			
Ethyl ether	0.2372 0.2220	0.2254	0.2359	0.2329	0.2374	Ave		0.2318				2.8		20.0			
Acrolein	0.0267 0.0275	0.0209	0.0286	0.0301	0.0297	Ave		0.0272				12.3		20.0			
1,1-Dichloroethene	0.2239 0.2146	0.2383	0.2370	0.2366	0.2233	Ave		0.2290			0.1000	4.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1418 0.1374	0.1710	0.1400	0.1336	0.1320	Ave		0.1426			0.0500	10.1		20.0			
Acetone	0.0899 0.0698	0.0697	0.0777	0.0559	0.0734	Ave		0.0728			0.0100	15.3		20.0			
Iodomethane	0.2762 0.2939	0.3233	0.3405	0.3400	0.3239	Ave		0.3163				8.2		20.0			
Carbon disulfide	0.6049 0.6014	0.6235	0.6432	0.6631	0.6332	Ave		0.6282			0.1000	3.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77205-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1541 0.2155	0.1768	0.1947	0.2032	0.2137	Ave		0.1930				12.3		20.0			
Methyl acetate	0.1502 0.1439	0.1483	0.1486	0.1498	0.1534	Ave		0.1490			0.1000	2.1		20.0			
Methylene Chloride	0.4225 0.2443	0.3330	0.2888	0.2680	0.2558	Lin1	0.1884	0.2432			0.1000				1.0000		0.9900
2-Methyl-2-propanol	0.0133 0.0126	0.0144	0.0137	0.0132	0.0136	Ave		0.0135				4.2		20.0			
Acrylonitrile	0.0804 0.0744	0.0752	0.0758	0.0762	0.0786	Ave		0.0768				3.0		20.0			
Methyl tert-butyl ether	0.6853 0.6998	0.6812	0.7122	0.7138	0.7495	Ave		0.7070			0.1000	3.5		20.0			
trans-1,2-Dichloroethene	0.3541 0.2770	0.2899	0.2860	0.2800	0.2806	Ave		0.2946			0.1000	10.0		20.0			
Hexane	0.0647 0.0606	0.0855	0.0650	0.0582	0.0615	Ave		0.0659				15.0		20.0			
1,1-Dichloroethane	0.4828 0.4698	0.4605	0.4785	0.4697	0.4675	Ave		0.4715			0.2000	1.7		20.0			
Vinyl acetate	0.4885 0.4256	0.4150	0.4259	0.4249	0.4476	Ave		0.4379				6.2		20.0			
cis-1,2-Dichloroethene	0.3086 0.3045	0.2831	0.3157	0.3080	0.3059	Ave		0.3043			0.1000	3.6		20.0			
2,2-Dichloropropane	0.2969 0.2429	0.2849	0.2880	0.2767	0.2713	Ave		0.2768				6.8		20.0			
2-Butanone (MEK)	0.0856 0.1002	0.0900	0.0976	0.0889	0.1087	Ave		0.0952			0.0100	9.1		20.0			
Chlorobromomethane	0.1424 0.1414	0.1351	0.1455	0.1402	0.1415	Ave		0.1410				2.4		20.0			
Tetrahydrofuran	0.0584 0.0535	0.0541	0.0553	0.0558	0.0577	Ave		0.0558				3.5		20.0			
Chloroform	0.4596 0.4385	0.4269	0.4516	0.4355	0.4415	Ave		0.4423			0.2000	2.6		20.0			
1,1,1-Trichloroethane	0.3520 0.3112	0.3333	0.3329	0.3290	0.3267	Ave		0.3308			0.1000	4.0		20.0			
Cyclohexane	0.3226 0.3693	0.4157	0.3644	0.3648	0.3705	Ave		0.3679			0.1000	8.0		20.0			
1,1-Dichloropropene	0.3531 0.3655	0.3433	0.3642	0.3628	0.3640	Ave		0.3588				2.5		20.0			
Carbon tetrachloride	0.2696 0.2833	0.2771	0.2852	0.2897	0.2925	Ave		0.2829			0.1000	3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77205-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0054 0.0062	0.0056	0.0058	0.0059	0.0070	Ave		0.0060				9.7		20.0			
1,2-Dichloroethane	0.3038 0.3081	0.3005	0.3092	0.3092	0.3114	Ave		0.3070			0.1000	1.3		20.0			
Benzene	1.2544 1.1967	1.1474	1.1805	1.1846	1.1868	Ave		1.1917			0.5000	2.9		20.0			
n-Heptane	0.0588 0.0618	0.0778	0.0537	0.0525	0.0574	Ave		0.0603				15.2		20.0			
Trichloroethene	0.3031 0.2996	0.2845	0.2958	0.3029	0.3024	Ave		0.2980			0.1500	2.4		20.0			
Methylcyclohexane	0.3651 0.3604	0.4206	0.3558	0.3398	0.3500	Ave		0.3653			0.1000	7.8		20.0			
1,2-Dichloropropane	0.2753 0.2798	0.2700	0.2777	0.2773	0.2807	Ave		0.2768			0.1000	1.4		20.0			
Dibromomethane	0.1511 0.1376	0.1410	0.1479	0.1450	0.1454	Ave		0.1447				3.3		20.0			
1,4-Dioxane	0.0006 0.0014	0.0012	0.0017	0.0016	0.0017	Qua	-0.035	0.0020	-0.000001						0.9990		0.9900
Dichlorobromomethane	0.3248 0.3256	0.3060	0.3186	0.3193	0.3277	Ave		0.3203			0.1500	2.5		20.0			
2-Chloroethyl vinyl ether	0.1488 0.1525	0.1435	0.1598	0.1595	0.1611	Ave		0.1542				4.6		20.0			
cis-1,3-Dichloropropene	0.3667 0.4576	0.3819	0.4293	0.4377	0.4543	Ave		0.4213			0.1500	9.1		20.0			
4-Methyl-2-pentanone (MIBK)	0.1897 0.1912	0.1791	0.1957	0.1952	0.2115	Ave		0.1937			0.0500	5.5		20.0			
Toluene	1.7741 1.7554	1.5882	1.7205	1.6569	1.7145	Ave		1.7016			0.4000	4.0		20.0			
trans-1,3-Dichloropropene	0.4332 0.5340	0.4332	0.4862	0.5054	0.5330	Ave		0.4875			0.1000	9.4		20.0			
Ethyl methacrylate	0.4609 0.4782	0.4371	0.4723	0.4791	0.5093	Ave		0.4728				5.0		20.0			
1,1,2-Trichloroethane	0.2737 0.2926	0.2812	0.3069	0.2998	0.3074	Ave		0.2936			0.1000	4.7		20.0			
Tetrachloroethene	0.3257 0.3259	0.3075	0.3204	0.3167	0.3259	Ave		0.3204			0.1500	2.3		20.0			
1,3-Dichloropropane	0.5508 0.5441	0.4982	0.5436	0.5418	0.5561	Ave		0.5391				3.8		20.0			
2-Hexanone	0.1763 0.2095	0.1515	0.2001	0.1850	0.2254	Ave		0.1913			0.0500	13.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77205-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2250 0.3372	0.2446	0.2890	0.3106	0.3252	Ave		0.2886				15.6		20.0			
Ethylene Dibromide	0.3157 0.2835	0.2981	0.2940	0.2886	0.2900	Ave		0.2950				3.8		20.0			
Chlorobenzene	1.0772 1.0502	0.9549	1.0420	1.0189	1.0365	Ave		1.0299			0.3000	4.0		20.0			
1,1,1,2-Tetrachloroethane	0.3328 0.3558	0.3181	0.3487	0.3520	0.3500	Ave		0.3429				4.2		20.0			
Ethylbenzene	0.5781 0.5679	0.5240	0.5615	0.5550	0.5641	Ave		0.5585				3.3		20.0			
m-Xylene & p-Xylene	0.7120 0.6936	0.6416	0.6926	0.6836	0.7009	Ave		0.6874				3.5		20.0			
o-Xylene	0.6710 0.6584	0.6124	0.6755	0.6620	0.6659	Ave		0.6575				3.5		20.0			
Styrene	1.1948 1.2052	1.0973	1.2038	1.1677	1.2000	Ave		1.1781			0.3000	3.6		20.0			
Bromoform	0.1088 0.2086	0.1276	0.1561	0.1793	0.2007	Lin1	-0.138	0.2067			0.1000				0.9970		0.9900
Isopropylbenzene	1.5677 1.6128	1.4753	1.5937	1.5519	1.5881	Ave		1.5649			0.1000	3.1		20.0			
1,1,2,2-Tetrachloroethane	0.6626 0.6723	0.6522	0.6683	0.6985	0.7133	Ave		0.6779			0.3000	3.4		20.0			
Bromobenzene	0.9267 0.9186	0.8563	0.8967	0.8864	0.9068	Ave		0.8986				2.8		20.0			
1,2,3-Trichloropropane	0.3173 0.2076	0.2047	0.2131	0.2102	0.2217	Ave		0.2291				19.0		20.0			
trans-1,4-Dichloro-2-butene	0.1101 0.1501	0.1042	0.0985	0.0982	0.1305	Ave		0.1153				18.1		20.0			
N-Propylbenzene	0.9053 0.8876	0.8180	0.8521	0.8411	0.8542	Ave		0.8597				3.7		20.0			
2-Chlorotoluene	0.8878 0.7638	0.7625	0.7958	0.7737	0.7491	Ave		0.7888				6.5		20.0			
1,3,5-Trimethylbenzene	2.4481 2.5421	2.3447	2.4454	2.4236	2.4490	Ave		2.4421				2.6		20.0			
4-Chlorotoluene	0.8789 0.8143	0.8094	0.7888	0.7925	0.7814	Ave		0.8109				4.4		20.0			
tert-Butylbenzene	2.1204 2.1411	2.0019	2.0719	2.0467	2.0821	Ave		2.0774				2.4		20.0			
1,2,4-Trimethylbenzene	2.6319 2.6041	2.4369	2.4811	2.4859	2.5064	Ave		2.5244				3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77205-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.7503 2.8029	2.5631	2.6283	2.6548	2.6674	Ave		2.6778				3.2		20.0			
1,3-Dichlorobenzene	1.5265 1.4672	1.3965	1.5191	1.4340	1.4524	Ave		1.4660			0.6000	3.4		20.0			
4-Isopropyltoluene	2.3033 2.4239	2.2080	2.2762	2.2933	2.3300	Ave		2.3058				3.1		20.0			
1,4-Dichlorobenzene	1.5825 1.5295	1.4512	1.5325	1.4911	1.4999	Ave		1.5145			0.5000	2.9		20.0			
n-Butylbenzene	1.9521 1.8489	1.7283	1.8047	1.7726	1.7963	Ave		1.8172				4.2		20.0			
1,2-Dichlorobenzene	1.4123 1.3422	1.2790	1.3396	1.3381	1.3553	Ave		1.3444			0.4000	3.2		20.0			
1,2-Dibromo-3-Chloropropane	0.0941 0.1214	0.1100	0.1123	0.1225	0.1306	Ave		0.1151			0.0500	11.1		20.0			
1,2,4-Trichlorobenzene	0.7459 0.7159	0.6811	0.6942	0.6932	0.6843	Ave		0.7024			0.2000	3.5		20.0			
Hexachlorobutadiene	0.3422 0.3089	0.3100	0.3209	0.3128	0.3015	Ave		0.3161				4.5		20.0			
Naphthalene	1.6223 1.5604	1.4977	1.5542	1.5956	1.6680	Ave		1.5830				3.7		20.0			
1,2,3-Trichlorobenzene	0.5850 0.5964	0.5669	0.5945	0.5957	0.5961	Ave		0.5891				2.0		20.0			
Dibromofluoromethane (Surr)	0.2660 0.2297	0.2382	0.2290	0.2327	0.2318	Ave		0.2379				5.9		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2934 0.2612	0.2774	0.2726	0.2714	0.2754	Ave		0.2752				3.8		20.0			
Toluene-d8 (Surr)	1.4632 1.4815	1.4274	1.4333	1.4143	1.4441	Ave		1.4440				1.7		20.0			
4-Bromofluorobenzene (Surr)	0.5365 0.4571	0.4569	0.4798	0.4735	0.4735	Ave		0.4796				6.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77205-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272388/7	UXJ1047.D
Level 2	STD8260 240-272388/6	UXJ1046.D
Level 3	STD8260 240-272388/5	UXJ1045.D
Level 4	STD8260 240-272388/4	UXJ1044.D
Level 5	STD8260 240-272388/3	UXJ1043.D
Level 6	STD8260 240-272388/2	UXJ1042.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	13296 681734	25998	67562	132260	352869	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	20660 748481	35482	90537	178218	374087	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	17443 718830	34348	86257	171711	362930	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	17049 580456	40706	81613	164912	331755	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Lin1	12876 331051	20623	44303	78110	165103	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	8051 356489	16381	42659	85731	180239	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	31089 905166	56424	113439	228322	475355	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	15424 836479	37153	92015	183698	405005	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	19671 787914	36998	98784	195316	409804	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	11079 487144	17152	59928	126023	256546	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	18569 761560	39115	99265	198436	385375	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	11760 487681	28069	58618	112028	227779	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Ave	14913 495754	22885	65104	93795	253482	2.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	22905 1043218	53066	142621	285110	559031	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	50170 2134423	102336	269375	556068	1092988	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	12781 764823	29024	81548	170411	368885	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77205-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	62291 2553158	121736	311086	628065	1323531	5.00 200	10.0	25.0	50.0	100
Methylene Chloride	FB	Lin1	35038 867017	54658	120966	224721	441439	1.00 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	10998 448821	23576	57203	110912	234691	10.0 400	20.0	50.0	100	200
Acrylonitrile	FB	Ave	66675 2641918	123389	317322	639099	1357394	10.0 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	56837 2483677	111815	298269	598561	1293685	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	29368 983202	47577	119771	234766	484390	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	5363 215055	14028	27222	48795	106201	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	40042 1667387	75589	200413	393892	806933	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	40516 1510638	68125	178356	356338	772583	1.00 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	25593 1080588	46474	132224	258267	528016	1.00 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	24626 862078	46771	120617	232041	468203	1.00 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	14191 711447	29547	81731	149145	375166	2.00 80.0	4.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	11807 501840	22182	60954	117536	244293	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	9681 379736	17749	46304	93601	199297	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	38116 1556243	70078	189135	365157	761966	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	29189 1104352	54709	139406	275890	563848	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	26757 1310784	68239	152601	305938	639521	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	29286 1297288	56343	152512	304200	628294	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	22357 1005420	45485	119435	242928	504873	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	CBNZ d5	Ave	8338 402113	17056	44497	91571	224437	25.0 1000	50.0	125	250	500
1,2-Dichloroethane	FB	Ave	25194 1093528	49329	129482	259275	537398	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77205-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	104033 4247251	188332	494386	993388	2048384	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	4876 219360	12774	22508	44066	98987	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	25133 1063441	46700	123863	253972	521953	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	30277 1279075	69040	149011	284955	604141	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	22831 992918	44317	116287	232565	484566	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	12534 488277	23143	61938	121607	250922	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Qua	927 100656	3813	13831	27131	58731	20.0 800	40.0	100	200	400
Dichlorobromomethane	FB	Ave	26937 1155511	50230	133417	267771	565671	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	24680 1082725	47093	133883	267431	556035	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	30410 1624017	62692	179807	367076	784119	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	31457 1357301	58782	163899	327362	730086	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	109145 4567124	194889	530832	1031697	2191414	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	26651 1389302	53153	150012	314702	681304	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	28353 1244128	53639	145715	298342	650926	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	16836 761137	34504	94674	186671	392928	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	20040 847928	37727	98861	197186	416588	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	33887 1415488	61134	167708	337348	710712	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	21690 1089861	37185	123466	230342	576277	2.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	13844 877283	30011	89177	193423	415610	1.00 40.0	2.00	5.00	10.0	20.0
Ethylene Dibromide	CBNZ d5	Ave	19424 737488	36584	90700	179729	370604	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	66269 2732295	117180	321475	634459	1324749	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77205-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	20472 925643	39029	107582	219166	447332	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	35568 1477483	64300	173234	345613	721042	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	43805 1804637	78729	213687	425662	895841	1.00 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBNZ d5	Ave	41282 1713004	75141	208399	412193	851108	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	73508 3135561	134644	371410	727088	1533742	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Lin1	6693 542742	15653	48159	111629	256548	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	96449 4195929	181034	491703	966365	2029796	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	19597 815175	37780	101504	211326	440909	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	27410 1113798	49607	136187	268154	560541	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	9386 251702	11860	32365	63589	137063	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	3257 182047	6038	14967	29723	80679	1.00 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	26775 1076221	47389	129409	254453	528015	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	26259 926158	44172	120858	234076	463063	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	72407 3082345	135827	371399	733204	1513826	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	25996 987428	46888	119796	239750	483033	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCBd 4	Ave	62716 2596141	115971	314678	619179	1287034	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	77843 3157571	141169	376818	752076	1549282	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	81345 3398671	148480	399186	803176	1648832	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	45150 1779043	80902	230723	433841	897766	1.00 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	68125 2939119	127909	345712	693788	1440244	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	46805 1854614	84070	232754	451098	927154	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77205-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	57737 2241904	100123	274095	536269	1110385	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	41770 1627473	74095	203462	404814	837747	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2782 147239	6373	17054	37053	80725	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	22060 868088	39458	105430	209702	423012	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Ave	10122 374507	17958	48745	94631	186376	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	47981 1892003	86764	236052	482735	1031066	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	17303 723200	32841	90288	180228	368452	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	22057 815354	39103	95916	195142	400040	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	24336 927115	45534	114155	227621	475303	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	90015 3854391	175158	442229	880637	1845750	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	33009 1189305	56067	148021	294831	605220	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICV 240-272388/15 Calibration Date: 03/29/2017 14:47

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1055.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2379	0.1992		0.0100	0.0120	-16.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2138		0.00929	0.0120	-22.3*	20.0
Toluene-d8 (Surr)	Ave	1.444	1.204		0.00997	0.0120	-16.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.4028		0.0100	0.0120	-16.0	20.0

ICV %D 50%

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICV 240-272388/15 Calibration Date: 03/29/2017 14:47

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 12:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 14:24

Lab File ID: UXJ1055.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0181	0.0162		0.0895	0.100	-10.5	20.0
Isopropyl ether	Ave	0.2617	0.2631		0.0101	0.0100	0.5	20.0
2-Chloro-1,3-butadiene	Ave	0.4583	0.4307		0.00940	0.0100	-6.0	20.0
Tert-butyl ethyl ether	Ave	0.8371	0.7949		0.00950	0.0100	-5.0	20.0
Ethyl acetate	Ave	0.1936	0.1718		0.0178	0.0200	-11.2	50.0
Propionitrile	Ave	0.0241	0.0220		0.0913	0.100	-8.7	20.0
Methacrylonitrile	Ave	0.1333	0.1221		0.0916	0.100	-8.4	20.0
Tert-amyl methyl ether	Ave	0.7539	0.7317		0.00970	0.0100	-3.0	20.0
n-Butanol	Ave	0.0051	0.0033		0.162	0.250	-35.1*	20.0
Ethyl acrylate	Ave	0.2937	0.2711		0.00923	0.0100	-7.7	20.0
Methyl methacrylate	Ave	0.2018	0.1859		0.0184	0.0200	-7.8	20.0
2-Nitropropane	Ave	0.0491	0.0453		0.0185	0.0200	-7.7	20.0
n-Butyl acetate	Ave	0.3308	0.2978		0.00900	0.0100	-10.0	30.0
1-Chlorohexane	Ave	0.4626	0.4255		0.00920	0.0100	-8.0	20.0
Cyclohexanone	Lin1		0.0086		0.0665	0.100	-33.5*	20.0
Pentachloroethane	Lin1		0.1984		0.0192	0.0200	-4.2	20.0
1,2,3-Trimethylbenzene	Ave	2.527	2.416		0.00956	0.0100	-4.4	20.0
Benzyl chloride	Lin1		0.2778		0.00855	0.0100	-14.5	20.0
1,3,5-Trichlorobenzene	Ave	0.8021	0.7284		0.00908	0.0100	-9.2	20.0
2-Methylnaphthalene	Ave	0.9439	0.6804		0.0144	0.0200	-27.9*	20.0

ICV %D 50%

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1724	0.1520	0.1000	0.00882	0.0100	-11.8	20.0
Chloromethane	Ave	0.2203	0.1934	0.1000	0.00878	0.0100	-12.2	20.0
Vinyl chloride	Ave	0.2072	0.1812	0.1000	0.00875	0.0100	-12.5	20.0
Butadiene	Ave	0.2001	0.1707		0.00853	0.0100	-14.7	30.0
Bromomethane	Lin1		0.0803	0.0500	0.00808	0.0100	-19.2	20.0
Chloroethane	Ave	0.1010	0.0911	0.0500	0.00903	0.0100	-9.7	20.0
Dichlorofluoromethane	Ave	0.2987	0.2255		0.00755	0.0100	-24.5*	20.0
Trichlorofluoromethane	Ave	0.2202	0.1985	0.1000	0.00901	0.0100	-9.9	20.0
Ethyl ether	Ave	0.2318	0.2049		0.00884	0.0100	-11.6	20.0
Acrolein	Ave	0.0272	0.0288		0.0529	0.0500	5.7	50.0
1,1-Dichloroethene	Ave	0.2290	0.1927	0.1000	0.00842	0.0100	-15.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1426	0.1116	0.0500	0.00783	0.0100	-21.7*	20.0
Acetone	Ave	0.0728	0.0341	0.0100	0.00937	0.0200	-53.2*	50.0
Iodomethane	Ave	0.3163	0.2412		0.00763	0.0100	-23.7*	20.0
Carbon disulfide	Ave	0.6282	0.5005	0.1000	0.00797	0.0100	-20.3*	20.0
3-Chloro-1-propene	Ave	0.1930	0.1810		0.00938	0.0100	-6.2	20.0
Methyl acetate	Ave	0.1490	0.1241	0.1000	0.0416	0.0500	-16.8	20.0
Methylene Chloride	Lin1		0.2495	0.1000	0.00949	0.0100	-5.1	50.0
2-Methyl-2-propanol	Ave	0.0135	0.0092		0.0686	0.100	-31.4	50.0
Acrylonitrile	Ave	0.0768	0.0647		0.0842	0.100	-15.8	20.0
Methyl tert-butyl ether	Ave	0.7070	0.6302	0.1000	0.00891	0.0100	-10.9	20.0
trans-1,2-Dichloroethene	Ave	0.2946	0.2591	0.1000	0.00879	0.0100	-12.1	20.0
Hexane	Ave	0.0659	0.0491		0.00744	0.0100	-25.6*	20.0
1,1-Dichloroethane	Ave	0.4715	0.4226	0.2000	0.00896	0.0100	-10.4	20.0
Vinyl acetate	Ave	0.4379	0.3731		0.00852	0.0100	-14.8	50.0
2,2-Dichloropropane	Ave	0.2768	0.2325		0.00840	0.0100	-16.0	20.0
2-Butanone (MEK)	Ave	0.0952	0.0659	0.0100	0.0138	0.0200	-30.8*	20.0
cis-1,2-Dichloroethene	Ave	0.3043	0.2828	0.1000	0.00929	0.0100	-7.1	20.0
Chlorobromomethane	Ave	0.1410	0.1239		0.00879	0.0100	-12.1	20.0
Tetrahydrofuran	Ave	0.0558	0.0443		0.0159	0.0200	-20.6*	20.0
Chloroform	Ave	0.4423	0.3996	0.2000	0.00903	0.0100	-9.7	20.0
1,1,1-Trichloroethane	Ave	0.3308	0.2958	0.1000	0.00894	0.0100	-10.6	20.0
Cyclohexane	Ave	0.3679	0.3157	0.1000	0.00858	0.0100	-14.2	20.0
1,1-Dichloropropene	Ave	0.3588	0.3320		0.00925	0.0100	-7.5	20.0
Carbon tetrachloride	Ave	0.2829	0.2512	0.1000	0.00888	0.0100	-11.2	20.0
Isobutyl alcohol	Ave	0.0060	0.0043		0.179	0.250	-28.4*	20.0
1,2-Dichloroethane	Ave	0.3070	0.2757	0.1000	0.00898	0.0100	-10.2	20.0
Benzene	Ave	1.192	1.080	0.5000	0.00906	0.0100	-9.4	20.0
n-Heptane	Ave	0.0603	0.0475		0.00787	0.0100	-21.3*	20.0
Trichloroethene	Ave	0.2980	0.2656	0.1500	0.00891	0.0100	-10.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3653	0.2928	0.1000	0.00802	0.0100	-19.8	20.0
1,2-Dichloropropane	Ave	0.2768	0.2561	0.1000	0.00925	0.0100	-7.5	20.0
Dibromomethane	Ave	0.1447	0.1263		0.00873	0.0100	-12.7	20.0
1,4-Dioxane	Qua		0.0008		0.0990	0.200	-50.5*	50.0
Dichlorobromomethane	Ave	0.3203	0.2954	0.1500	0.00922	0.0100	-7.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1542	0.1392		0.00903	0.0100	-9.7	20.0
cis-1,3-Dichloropropene	Ave	0.4213	0.4040	0.1500	0.00959	0.0100	-4.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1937	0.1614	0.0500	0.0167	0.0200	-16.7	20.0
Toluene	Ave	1.702	1.557	0.4000	0.00915	0.0100	-8.5	20.0
trans-1,3-Dichloropropene	Ave	0.4875	0.4476	0.1000	0.00918	0.0100	-8.2	20.0
Ethyl methacrylate	Ave	0.4728	0.4224		0.00893	0.0100	-10.7	20.0
1,1,2-Trichloroethane	Ave	0.2936	0.2688	0.1000	0.00916	0.0100	-8.4	20.0
Tetrachloroethene	Ave	0.3204	0.2926	0.1500	0.00913	0.0100	-8.7	20.0
1,3-Dichloropropane	Ave	0.5391	0.4881		0.00905	0.0100	-9.5	20.0
2-Hexanone	Ave	0.1913	0.1463	0.0500	0.0153	0.0200	-23.5*	20.0
Chlorodibromomethane	Ave	0.2886	0.2708		0.00938	0.0100	-6.2	20.0
Ethylene Dibromide	Ave	0.2950	0.2590		0.00878	0.0100	-12.2	20.0
Chlorobenzene	Ave	1.030	0.9464	0.3000	0.00919	0.0100	-8.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3429	0.3303		0.00963	0.0100	-3.7	20.0
Ethylbenzene	Ave	0.5585	0.5055		0.00905	0.0100	-9.5	20.0
m-Xylene & p-Xylene	Ave	0.6874	0.6356		0.00925	0.0100	-7.5	20.0
o-Xylene	Ave	0.6575	0.6107		0.00929	0.0100	-7.1	20.0
Styrene	Ave	1.178	1.093	0.3000	0.00928	0.0100	-7.2	20.0
Bromoform	Lin1		0.1552	0.1000	0.00818	0.0100	-18.2	20.0
Isopropylbenzene	Ave	1.565	1.437	0.1000	0.00918	0.0100	-8.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6779	0.6005	0.3000	0.00886	0.0100	-11.4	20.0
Bromobenzene	Ave	0.8986	0.8270		0.00920	0.0100	-8.0	20.0
1,2,3-Trichloropropane	Ave	0.2291	0.1944		0.00848	0.0100	-15.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1153	0.0968		0.00839	0.0100	-16.1	20.0
N-Propylbenzene	Ave	0.8597	0.7745		0.00901	0.0100	-9.9	20.0
2-Chlorotoluene	Ave	0.7888	0.7065		0.00896	0.0100	-10.4	20.0
1,3,5-Trimethylbenzene	Ave	2.442	2.239		0.00917	0.0100	-8.3	20.0
4-Chlorotoluene	Ave	0.8109	0.7310		0.00901	0.0100	-9.9	20.0
tert-Butylbenzene	Ave	2.077	1.870		0.00900	0.0100	-10.0	20.0
1,2,4-Trimethylbenzene	Ave	2.524	2.289		0.00907	0.0100	-9.3	20.0
sec-Butylbenzene	Ave	2.678	2.378		0.00888	0.0100	-11.2	20.0
1,3-Dichlorobenzene	Ave	1.466	1.342	0.6000	0.00916	0.0100	-8.4	20.0
4-Isopropyltoluene	Ave	2.306	2.072		0.00898	0.0100	-10.2	20.0
1,4-Dichlorobenzene	Ave	1.514	1.395	0.5000	0.00921	0.0100	-7.9	20.0
n-Butylbenzene	Ave	1.817	1.579		0.00869	0.0100	-13.1	20.0
1,2-Dichlorobenzene	Ave	1.344	1.222	0.4000	0.00909	0.0100	-9.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1151	0.1007	0.0500	0.00874	0.0100	-12.6	50.0
1,2,4-Trichlorobenzene	Ave	0.7024	0.5999	0.2000	0.00854	0.0100	-14.6	50.0
Hexachlorobutadiene	Ave	0.3161	0.2508		0.00793	0.0100	-20.7*	20.0
Naphthalene	Ave	1.583	1.363		0.00861	0.0100	-13.9	50.0
1,2,3-Trichlorobenzene	Ave	0.5891	0.5323		0.00904	0.0100	-9.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2379	0.1846		0.00928	0.0120	-22.4*	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2096		0.00911	0.0120	-23.9*	20.0
Toluene-d8 (Surr)	Ave	1.444	1.157		0.00958	0.0120	-19.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.3742		0.00933	0.0120	-22.0*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab File ID: BFB70330.D BFB Injection Date: 03/30/2017

Instrument ID: A3UX11 BFB Injection Time: 09:33

Analysis Batch No.: 272601

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	44.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	97.2	
175	5.0 - 9.0 % of mass 174	6.8	(7.0) 1
176	95.0 - 101.0 % of mass 174	93.7	(96.4) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-272601/2	UXJ1058.D	03/30/2017	10:13
	LCS 240-272601/4	UXJ1059.D	03/30/2017	10:36
	CCV 240-272601/3	UXJ1060.D	03/30/2017	10:58
	MB 240-272601/6	UXJ1062.D	03/30/2017	11:44
TB-032317	240-77205-5	UXJ1082.D	03/30/2017	19:17
	240-77041-E-2 MS	UXJ1084.D	03/30/2017	20:02
	240-77041-H-2 MSD	UXJ1085.D	03/30/2017	20:25

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCVIS 240-272601/2 Calibration Date: 03/30/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1058.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1724	0.1801	0.1000	0.0104	0.0100	4.5	20.0
Chloromethane	Ave	0.2203	0.2007	0.1000	0.00911	0.0100	-8.9	20.0
Vinyl chloride	Ave	0.2072	0.1871	0.1000	0.00903	0.0100	-9.7	20.0
Butadiene	Ave	0.2001	0.1550		0.00774	0.0100	-22.6*	20.0
Bromomethane	Lin1		0.0887	0.0500	0.00901	0.0100	-9.9	20.0
Chloroethane	Ave	0.1010	0.0949	0.0500	0.00939	0.0100	-6.1	20.0
Dichlorofluoromethane	Ave	0.2987	0.2368		0.00793	0.0100	-20.7*	20.0
Trichlorofluoromethane	Ave	0.2202	0.2014	0.1000	0.00914	0.0100	-8.6	20.0
Ethyl ether	Ave	0.2318	0.2169		0.00936	0.0100	-6.4	20.0
Acrolein	Ave	0.0272	0.0264		0.0484	0.0500	-3.3	50.0
1,1-Dichloroethene	Ave	0.2290	0.2095	0.1000	0.00915	0.0100	-8.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1426	0.1172	0.0500	0.00821	0.0100	-17.9	20.0
Acetone	Ave	0.0728	0.0637	0.0100	0.0175	0.0200	-12.4	50.0
Iodomethane	Ave	0.3163	0.2846		0.00900	0.0100	-10.0	20.0
Carbon disulfide	Ave	0.6282	0.5374	0.1000	0.00855	0.0100	-14.5	20.0
3-Chloro-1-propene	Ave	0.1930	0.2036		0.0105	0.0100	5.5	20.0
Methyl acetate	Ave	0.1490	0.1307	0.1000	0.0438	0.0500	-12.3	20.0
Methylene Chloride	Lin1		0.3016	0.1000	0.0116	0.0100	16.3	50.0
2-Methyl-2-propanol	Ave	0.0135	0.0109		0.0806	0.100	-19.4	50.0
Acrylonitrile	Ave	0.0768	0.0686		0.0893	0.100	-10.7	20.0
Methyl tert-butyl ether	Ave	0.7070	0.6659	0.1000	0.00942	0.0100	-5.8	20.0
trans-1,2-Dichloroethene	Ave	0.2946	0.2612	0.1000	0.00887	0.0100	-11.3	20.0
Hexane	Ave	0.0659	0.0555		0.00841	0.0100	-15.9	20.0
1,1-Dichloroethane	Ave	0.4715	0.4402	0.2000	0.00934	0.0100	-6.6	20.0
Vinyl acetate	Ave	0.4379	0.3951		0.00902	0.0100	-9.8	50.0
2,2-Dichloropropane	Ave	0.2768	0.2287		0.00826	0.0100	-17.4	20.0
2-Butanone (MEK)	Ave	0.0952	0.0882	0.0100	0.0185	0.0200	-7.3	20.0
cis-1,2-Dichloroethene	Ave	0.3043	0.2979	0.1000	0.00979	0.0100	-2.1	20.0
Chlorobromomethane	Ave	0.1410	0.1376		0.00975	0.0100	-2.5	20.0
Tetrahydrofuran	Ave	0.0558	0.0512		0.0184	0.0200	-8.2	20.0
Chloroform	Ave	0.4423	0.4268	0.2000	0.00965	0.0100	-3.5	20.0
1,1,1-Trichloroethane	Ave	0.3308	0.2930	0.1000	0.00885	0.0100	-11.5	20.0
Cyclohexane	Ave	0.3679	0.3164	0.1000	0.00860	0.0100	-14.0	20.0
1,1-Dichloropropene	Ave	0.3588	0.3317		0.00924	0.0100	-7.6	20.0
Carbon tetrachloride	Ave	0.2829	0.2558	0.1000	0.00904	0.0100	-9.6	20.0
Isobutyl alcohol	Ave	0.0060	0.0050		0.210	0.250	-16.2	20.0
1,2-Dichloroethane	Ave	0.3070	0.3022	0.1000	0.00984	0.0100	-1.6	20.0
Benzene	Ave	1.192	1.118	0.5000	0.00938	0.0100	-6.2	20.0
n-Heptane	Ave	0.0603	0.0509		0.00844	0.0100	-15.6	20.0
Trichloroethene	Ave	0.2980	0.2853	0.1500	0.00957	0.0100	-4.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCVIS 240-272601/2 Calibration Date: 03/30/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1058.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3653	0.3105	0.1000	0.00850	0.0100	-15.0	20.0
1,2-Dichloropropane	Ave	0.2768	0.2665	0.1000	0.00963	0.0100	-3.7	20.0
Dibromomethane	Ave	0.1447	0.1334		0.00922	0.0100	-7.8	20.0
1,4-Dioxane	Qua		0.0012		0.138	0.200	-30.9	50.0
Dichlorobromomethane	Ave	0.3203	0.3133	0.1500	0.00978	0.0100	-2.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1542	0.1420		0.0184	0.0200	-7.9	20.0
cis-1,3-Dichloropropene	Ave	0.4213	0.4301	0.1500	0.0102	0.0100	2.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1937	0.1665	0.0500	0.0172	0.0200	-14.1	20.0
Toluene	Ave	1.702	1.599	0.4000	0.00940	0.0100	-6.0	20.0
trans-1,3-Dichloropropene	Ave	0.4875	0.4868	0.1000	0.00999	0.0100	-0.1	20.0
Ethyl methacrylate	Ave	0.4728	0.4317		0.00913	0.0100	-8.7	20.0
1,1,2-Trichloroethane	Ave	0.2936	0.2812	0.1000	0.00958	0.0100	-4.2	20.0
Tetrachloroethene	Ave	0.3204	0.2947	0.1500	0.00920	0.0100	-8.0	20.0
1,3-Dichloropropane	Ave	0.5391	0.5155		0.00956	0.0100	-4.4	20.0
2-Hexanone	Ave	0.1913	0.1773	0.0500	0.0185	0.0200	-7.3	20.0
Chlorodibromomethane	Ave	0.2886	0.3065		0.0106	0.0100	6.2	20.0
Ethylene Dibromide	Ave	0.2950	0.2714		0.00920	0.0100	-8.0	20.0
Chlorobenzene	Ave	1.030	1.002	0.3000	0.00972	0.0100	-2.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3429	0.3416		0.00996	0.0100	-0.4	20.0
Ethylbenzene	Ave	0.5585	0.5300		0.00949	0.0100	-5.1	20.0
m-Xylene & p-Xylene	Ave	0.6874	0.6475		0.00942	0.0100	-5.8	20.0
o-Xylene	Ave	0.6575	0.6339		0.00964	0.0100	-3.6	20.0
Styrene	Ave	1.178	1.142	0.3000	0.00969	0.0100	-3.1	20.0
Bromoform	Lin1		0.1820	0.1000	0.00947	0.0100	-5.3	20.0
Isopropylbenzene	Ave	1.565	1.461	0.1000	0.00933	0.0100	-6.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6779	0.6065	0.3000	0.00895	0.0100	-10.5	20.0
Bromobenzene	Ave	0.8986	0.8484		0.00944	0.0100	-5.6	20.0
1,2,3-Trichloropropane	Ave	0.2291	0.1959		0.00855	0.0100	-14.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1153	0.1217		0.0106	0.0100	5.6	20.0
N-Propylbenzene	Ave	0.8597	0.7783		0.00905	0.0100	-9.5	20.0
2-Chlorotoluene	Ave	0.7888	0.7170		0.00909	0.0100	-9.1	20.0
1,3,5-Trimethylbenzene	Ave	2.442	2.286		0.00936	0.0100	-6.4	20.0
4-Chlorotoluene	Ave	0.8109	0.7535		0.00929	0.0100	-7.1	20.0
tert-Butylbenzene	Ave	2.077	1.901		0.00915	0.0100	-8.5	20.0
1,2,4-Trimethylbenzene	Ave	2.524	2.423		0.00960	0.0100	-4.0	20.0
sec-Butylbenzene	Ave	2.678	2.485		0.00928	0.0100	-7.2	20.0
1,3-Dichlorobenzene	Ave	1.466	1.420	0.6000	0.00969	0.0100	-3.1	20.0
4-Isopropyltoluene	Ave	2.306	2.191		0.00950	0.0100	-5.0	20.0
1,4-Dichlorobenzene	Ave	1.514	1.447	0.5000	0.00955	0.0100	-4.5	20.0
n-Butylbenzene	Ave	1.817	1.658		0.00912	0.0100	-8.8	20.0
1,2-Dichlorobenzene	Ave	1.344	1.298	0.4000	0.00965	0.0100	-3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCVIS 240-272601/2 Calibration Date: 03/30/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1058.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1151	0.1125	0.0500	0.00977	0.0100	-2.3	50.0
1,2,4-Trichlorobenzene	Ave	0.7024	0.6623	0.2000	0.00943	0.0100	-5.7	50.0
Hexachlorobutadiene	Ave	0.3161	0.2770		0.00877	0.0100	-12.3	20.0
Naphthalene	Ave	1.583	1.407		0.00889	0.0100	-11.1	50.0
1,2,3-Trichlorobenzene	Ave	0.5891	0.5314		0.00902	0.0100	-9.8	20.0
Dibromofluoromethane (Surr)	Ave	0.2379	0.2460		0.0103	0.0100	3.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2724		0.00990	0.0100	-1.0	20.0
Toluene-d8 (Surr)	Ave	1.444	1.499		0.0104	0.0100	3.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.4917		0.0103	0.0100	2.5	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab File ID: BFB70331.D BFB Injection Date: 03/31/2017

Instrument ID: A3UX11 BFB Injection Time: 09:45

Analysis Batch No.: 272768

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.7	
75	30.0 - 60.0 % of mass 95	44.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	93.8	
175	5.0 - 9.0 % of mass 174	6.9	(7.4) 1
176	95.0 - 101.0 % of mass 174	91.8	(97.8) 1
177	5.0 - 9.0 % of mass 176	6.2	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-272768/2	UXJ1120.D	03/31/2017	10:13
	LCS 240-272768/4	UXJ1121.D	03/31/2017	10:35
	CCV 240-272768/3	UXJ1122.D	03/31/2017	10:58
	MB 240-272768/6	UXJ1124.D	03/31/2017	11:44
MRC-MW104A-032317	240-77205-1	UXJ1128.D	03/31/2017	13:15
MRC-MW104B-032317	240-77205-2	UXJ1129.D	03/31/2017	13:38
MRC-MW73B-032317	240-77205-4	UXJ1130.D	03/31/2017	14:00
	200-37906-B-3 MS	UXJ1145.D	03/31/2017	19:41
	200-37906-B-3 MSD	UXJ1146.D	03/31/2017	20:04

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1724	0.2005	0.1000	0.0116	0.0100	16.3	20.0
Chloromethane	Ave	0.2203	0.2078	0.1000	0.00943	0.0100	-5.7	20.0
Vinyl chloride	Ave	0.2072	0.1893	0.1000	0.00914	0.0100	-8.6	20.0
Butadiene	Ave	0.2001	0.1618		0.00808	0.0100	-19.2	20.0
Bromomethane	Lin1		0.0773	0.0500	0.00776	0.0100	-22.4*	20.0
Chloroethane	Ave	0.1010	0.0848	0.0500	0.00840	0.0100	-16.0	20.0
Dichlorofluoromethane	Ave	0.2987	0.2453		0.00821	0.0100	-17.9	20.0
Trichlorofluoromethane	Ave	0.2202	0.2168	0.1000	0.00984	0.0100	-1.6	20.0
Ethyl ether	Ave	0.2318	0.2093		0.00903	0.0100	-9.7	20.0
Acrolein	Ave	0.0272	0.0246		0.0451	0.0500	-9.8	50.0
1,1-Dichloroethene	Ave	0.2290	0.2173	0.1000	0.00949	0.0100	-5.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1426	0.1252	0.0500	0.00878	0.0100	-12.2	20.0
Acetone	Ave	0.0728	0.0507	0.0100	0.0139	0.0200	-30.3	50.0
Iodomethane	Ave	0.3163	0.2760		0.00873	0.0100	-12.7	20.0
Carbon disulfide	Ave	0.6282	0.5479	0.1000	0.00872	0.0100	-12.8	20.0
3-Chloro-1-propene	Ave	0.1930	0.1668		0.00864	0.0100	-13.6	20.0
Methyl acetate	Ave	0.1490	0.1307	0.1000	0.0439	0.0500	-12.3	20.0
Methylene Chloride	Lin1		0.2616	0.1000	0.00998	0.0100	-0.2	50.0
2-Methyl-2-propanol	Ave	0.0135	0.0110		0.0814	0.100	-18.6	50.0
Acrylonitrile	Ave	0.0768	0.0669		0.0872	0.100	-12.8	20.0
Methyl tert-butyl ether	Ave	0.7070	0.6705	0.1000	0.00948	0.0100	-5.2	20.0
trans-1,2-Dichloroethene	Ave	0.2946	0.2762	0.1000	0.00938	0.0100	-6.2	20.0
Hexane	Ave	0.0659	0.0605		0.00918	0.0100	-8.2	20.0
1,1-Dichloroethane	Ave	0.4715	0.4402	0.2000	0.00934	0.0100	-6.6	20.0
Vinyl acetate	Ave	0.4379	0.3709		0.00847	0.0100	-15.3	50.0
2,2-Dichloropropane	Ave	0.2768	0.2419		0.00874	0.0100	-12.6	20.0
2-Butanone (MEK)	Ave	0.0952	0.0758	0.0100	0.0159	0.0200	-20.4*	20.0
cis-1,2-Dichloroethene	Ave	0.3043	0.3084	0.1000	0.0101	0.0100	1.3	20.0
Chlorobromomethane	Ave	0.1410	0.1388		0.00984	0.0100	-1.6	20.0
Tetrahydrofuran	Ave	0.0558	0.0466		0.0167	0.0200	-16.4	20.0
Chloroform	Ave	0.4423	0.4335	0.2000	0.00980	0.0100	-2.0	20.0
1,1,1-Trichloroethane	Ave	0.3308	0.3156	0.1000	0.00954	0.0100	-4.6	20.0
Cyclohexane	Ave	0.3679	0.3580	0.1000	0.00973	0.0100	-2.7	20.0
1,1-Dichloropropene	Ave	0.3588	0.3527		0.00983	0.0100	-1.7	20.0
Carbon tetrachloride	Ave	0.2829	0.2672	0.1000	0.00944	0.0100	-5.6	20.0
Isobutyl alcohol	Ave	0.0060	0.0048		0.202	0.250	-19.0	20.0
1,2-Dichloroethane	Ave	0.3070	0.2937	0.1000	0.00957	0.0100	-4.3	20.0
Benzene	Ave	1.192	1.140	0.5000	0.00957	0.0100	-4.3	20.0
n-Heptane	Ave	0.0603	0.0582		0.00965	0.0100	-3.5	20.0
Trichloroethene	Ave	0.2980	0.2952	0.1500	0.00990	0.0100	-1.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3653	0.3484	0.1000	0.00954	0.0100	-4.6	20.0
1,2-Dichloropropane	Ave	0.2768	0.2599	0.1000	0.00939	0.0100	-6.1	20.0
Dibromomethane	Ave	0.1447	0.1360		0.00940	0.0100	-6.0	20.0
1,4-Dioxane	Qua		0.0008		0.0980	0.200	-51.0*	50.0
Dichlorobromomethane	Ave	0.3203	0.2890	0.1500	0.00902	0.0100	-9.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1542	0.1406		0.0182	0.0200	-8.8	20.0
cis-1,3-Dichloropropene	Ave	0.4213	0.3740	0.1500	0.00888	0.0100	-11.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1937	0.1613	0.0500	0.0167	0.0200	-16.7	20.0
Toluene	Ave	1.702	1.635	0.4000	0.00961	0.0100	-3.9	20.0
trans-1,3-Dichloropropene	Ave	0.4875	0.3938	0.1000	0.00808	0.0100	-19.2	20.0
Ethyl methacrylate	Ave	0.4728	0.4224		0.00893	0.0100	-10.7	20.0
1,1,2-Trichloroethane	Ave	0.2936	0.2877	0.1000	0.00980	0.0100	-2.0	20.0
Tetrachloroethene	Ave	0.3204	0.3158	0.1500	0.00986	0.0100	-1.4	20.0
1,3-Dichloropropane	Ave	0.5391	0.5115		0.00949	0.0100	-5.1	20.0
2-Hexanone	Ave	0.1913	0.1439	0.0500	0.0150	0.0200	-24.8*	20.0
Chlorodibromomethane	Ave	0.2886	0.2361		0.00818	0.0100	-18.2	20.0
Ethylene Dibromide	Ave	0.2950	0.2751		0.00932	0.0100	-6.8	20.0
Chlorobenzene	Ave	1.030	0.997	0.3000	0.00968	0.0100	-3.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3429	0.3204		0.00935	0.0100	-6.5	20.0
Ethylbenzene	Ave	0.5585	0.5409		0.00968	0.0100	-3.2	20.0
m-Xylene & p-Xylene	Ave	0.6874	0.6686		0.00973	0.0100	-2.7	20.0
o-Xylene	Ave	0.6575	0.6420		0.00976	0.0100	-2.4	20.0
Styrene	Ave	1.178	1.135	0.3000	0.00964	0.0100	-3.6	20.0
Bromoform	Lin1		0.1122	0.1000	0.00610	0.0100	-39.0*	20.0
Isopropylbenzene	Ave	1.565	1.521	0.1000	0.00972	0.0100	-2.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6779	0.6238	0.3000	0.00920	0.0100	-8.0	20.0
Bromobenzene	Ave	0.8986	0.9018		0.0100	0.0100	0.4	20.0
1,2,3-Trichloropropane	Ave	0.2291	0.1991		0.00869	0.0100	-13.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1153	0.0490		0.00425	0.0100	-57.5*	20.0
N-Propylbenzene	Ave	0.8597	0.8464		0.00984	0.0100	-1.6	20.0
2-Chlorotoluene	Ave	0.7888	0.7428		0.00942	0.0100	-5.8	20.0
1,3,5-Trimethylbenzene	Ave	2.442	2.442		0.0100	0.0100	0.0	20.0
4-Chlorotoluene	Ave	0.8109	0.7822		0.00965	0.0100	-3.5	20.0
tert-Butylbenzene	Ave	2.077	2.031		0.00978	0.0100	-2.2	20.0
1,2,4-Trimethylbenzene	Ave	2.524	2.484		0.00984	0.0100	-1.6	20.0
sec-Butylbenzene	Ave	2.678	2.649		0.00989	0.0100	-1.1	20.0
1,3-Dichlorobenzene	Ave	1.466	1.442	0.6000	0.00984	0.0100	-1.6	20.0
4-Isopropyltoluene	Ave	2.306	2.250		0.00976	0.0100	-2.4	20.0
1,4-Dichlorobenzene	Ave	1.514	1.470	0.5000	0.00971	0.0100	-2.9	20.0
n-Butylbenzene	Ave	1.817	1.748		0.00962	0.0100	-3.8	20.0
1,2-Dichlorobenzene	Ave	1.344	1.330	0.4000	0.00989	0.0100	-1.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1151	0.0975	0.0500	0.00847	0.0100	-15.3	50.0
1,2,4-Trichlorobenzene	Ave	0.7024	0.6567	0.2000	0.00935	0.0100	-6.5	50.0
Hexachlorobutadiene	Ave	0.3161	0.2927		0.00926	0.0100	-7.4	20.0
Naphthalene	Ave	1.583	1.427		0.00901	0.0100	-9.9	50.0
1,2,3-Trichlorobenzene	Ave	0.5891	0.5351		0.00908	0.0100	-9.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2379	0.2377		0.00999	0.0100	-0.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2698		0.00980	0.0100	-2.0	20.0
Toluene-d8 (Surr)	Ave	1.444	1.435		0.00994	0.0100	-0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.4696		0.00979	0.0100	-2.1	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Sample No.: STD8260 240-272388/4 Date Analyzed: 03/29/2017 10:38

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ1044.D Heated Purge: (Y/N) N

Calibration ID: 39174

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		838554	5.04	622679	7.70	302532	9.94
UPPER LIMIT		1677108	5.54	1245358	8.20	605064	10.44
LOWER LIMIT		419277	4.54	311340	7.20	151266	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272388/15		836158	5.04	620506	7.70	304045	9.94
ICV 240-272388/14		897373	5.04	658178	7.70	317428	9.94
CCVIS 240-272601/2		892078	5.04	663201	7.70	322973	9.94
CCVIS 240-272768/2		890785	5.04	669824	7.70	315717	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Sample No.: CCVIS 240-272601/2 Date Analyzed: 03/30/2017 10:13

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ1058.D Heated Purge: (Y/N) N

Calibration ID: 39177

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		892078	5.04	663201	7.70	322973	9.94
UPPER LIMIT		1784156	5.54	1326402	8.20	645946	10.44
LOWER LIMIT		446039	4.54	331601	7.20	161487	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-272601/4		888251	5.04	662835	7.70	326474	9.94
CCV 240-272601/3		861156	5.04	649535	7.70	314570	9.94
MB 240-272601/6		830598	5.04	624607	7.70	300153	9.94
240-77205-5	TB-032317	891328	5.04	670773	7.70	329481	9.94
240-77041-E-2 MS		885034	5.04	665138	7.70	324064	9.94
240-77041-H-2 MSD		873703	5.04	653954	7.70	319198	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Sample No.: CCVIS 240-272768/2 Date Analyzed: 03/31/2017 10:13

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ1120.D Heated Purge: (Y/N) N

Calibration ID: 39177

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		890785	5.04	669824	7.70	315717	9.94
UPPER LIMIT		1781570	5.54	1339648	8.20	631434	10.44
LOWER LIMIT		445393	4.54	334912	7.20	157859	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-272768/4		887519	5.04	667787	7.70	324823	9.94
CCV 240-272768/3		882286	5.04	665506	7.70	319868	9.94
MB 240-272768/6		867163	5.04	651083	7.70	311097	9.94
240-77205-1	MRC-MW104A-032317	870865	5.04	648509	7.70	311210	9.94
240-77205-2	MRC-MW104B-032317	894565	5.04	667701	7.70	316208	9.94
240-77205-4	MRC-MW73B-032317	881024	5.04	669526	7.70	308963	9.94
200-37906-B-3 MS		886887	5.04	666352	7.70	324576	9.94
200-37906-B-3 MSD		840604	5.04	636778	7.70	309764	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: A3UX11 Start Date: 03/29/2017 09:21

Analysis Batch Number: 272388 End Date: 03/29/2017 15:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272388/1		03/29/2017 09:21	1	BFB70329.D	DB-624 0.18(mm)
STD8260 240-272388/2 IC		03/29/2017 09:53	1	UXJ1042.D	DB-624 0.18(mm)
STD8260 240-272388/3 IC		03/29/2017 10:15	1	UXJ1043.D	DB-624 0.18(mm)
STD8260 240-272388/4 ICIS		03/29/2017 10:38	1	UXJ1044.D	DB-624 0.18(mm)
STD8260 240-272388/5 IC		03/29/2017 11:01	1	UXJ1045.D	DB-624 0.18(mm)
STD8260 240-272388/6 IC		03/29/2017 11:24	1	UXJ1046.D	DB-624 0.18(mm)
STD8260 240-272388/7 IC		03/29/2017 11:46	1	UXJ1047.D	DB-624 0.18(mm)
STD6 240-272388/8 IC		03/29/2017 12:31	1		DB-624 0.18(mm)
STD5 240-272388/9 IC		03/29/2017 12:54	1		DB-624 0.18(mm)
STD4 240-272388/10 IC		03/29/2017 13:16	1		DB-624 0.18(mm)
STD3 240-272388/11 IC		03/29/2017 13:39	1		DB-624 0.18(mm)
STD2 240-272388/12 IC		03/29/2017 14:02	1		DB-624 0.18(mm)
STD1 240-272388/13 IC		03/29/2017 14:24	1		DB-624 0.18(mm)
ICV 240-272388/15		03/29/2017 14:47	1	UXJ1055.D	DB-624 0.18(mm)
ICV 240-272388/14		03/29/2017 15:09	1	UXJ1056.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: A3UX11 Start Date: 03/30/2017 09:33

Analysis Batch Number: 272601 End Date: 03/30/2017 20:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272601/1		03/30/2017 09:33	1	BFB70330.D	DB-624 0.18(mm)
CCVIS 240-272601/2		03/30/2017 10:13	1	UXJ1058.D	DB-624 0.18(mm)
LCS 240-272601/4		03/30/2017 10:36	1	UXJ1059.D	DB-624 0.18(mm)
CCV 240-272601/3		03/30/2017 10:58	1	UXJ1060.D	DB-624 0.18(mm)
ZZZZZ		03/30/2017 11:21	1		DB-624 0.18(mm)
MB 240-272601/6		03/30/2017 11:44	1	UXJ1062.D	DB-624 0.18(mm)
ZZZZZ		03/30/2017 12:06	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 12:29	10		DB-624 0.18(mm)
ZZZZZ		03/30/2017 12:52	3.33		DB-624 0.18(mm)
ZZZZZ		03/30/2017 13:14	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 13:36	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 13:59	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 14:22	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 14:44	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 15:07	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 15:30	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 15:53	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 16:16	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 16:39	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 17:01	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 17:24	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 17:46	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 18:09	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 18:32	3.33		DB-624 0.18(mm)
ZZZZZ		03/30/2017 18:54	2500		DB-624 0.18(mm)
240-77205-5		03/30/2017 19:17	1	UXJ1082.D	DB-624 0.18(mm)
ZZZZZ		03/30/2017 19:39	3.33		DB-624 0.18(mm)
240-77041-E-2 MS		03/30/2017 20:02	1	UXJ1084.D	DB-624 0.18(mm)
240-77041-H-2 MSD		03/30/2017 20:25	1	UXJ1085.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: A3UX11 Start Date: 03/31/2017 09:45

Analysis Batch Number: 272768 End Date: 03/31/2017 20:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272768/1		03/31/2017 09:45	1	BFB70331.D	DB-624 0.18(mm)
CCVIS 240-272768/2		03/31/2017 10:13	1	UXJ1120.D	DB-624 0.18(mm)
LCS 240-272768/4		03/31/2017 10:35	1	UXJ1121.D	DB-624 0.18(mm)
CCV 240-272768/3		03/31/2017 10:58	1	UXJ1122.D	DB-624 0.18(mm)
ZZZZZ		03/31/2017 11:21	1		DB-624 0.18(mm)
MB 240-272768/6		03/31/2017 11:44	1	UXJ1124.D	DB-624 0.18(mm)
ZZZZZ		03/31/2017 12:07	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 12:29	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 12:52	1		DB-624 0.18(mm)
240-77205-1		03/31/2017 13:15	1	UXJ1128.D	DB-624 0.18(mm)
240-77205-2		03/31/2017 13:38	1	UXJ1129.D	DB-624 0.18(mm)
240-77205-4		03/31/2017 14:00	1	UXJ1130.D	DB-624 0.18(mm)
ZZZZZ		03/31/2017 14:23	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 14:46	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:09	3.33		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:31	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:54	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 16:17	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 16:40	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:02	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:25	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:48	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 18:10	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 18:33	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 18:56	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 19:18	1		DB-624 0.18(mm)
200-37906-B-3 MS		03/31/2017 19:41	3.33	UXJ1145.D	DB-624 0.18(mm)
200-37906-B-3 MSD		03/31/2017 20:04	3.33	UXJ1146.D	DB-624 0.18(mm)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW73A-032317	240-77205-3	107
MRC-MW73B-032317	240-77205-4	100
	MB 200-115253/1-A	97
	LCS 200-115253/2-A	111

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24494_03.D

Lab ID: LCS 200-115253/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	2.25	112	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Lab File ID: Z24494_04.D Lab Sample ID: MB 200-115253/1-A

Matrix: Water Date Extracted: 03/28/2017 17:53

Instrument ID: CHZ.i Date Analyzed: 03/29/2017 14:13

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-115253/2-A	Z24494_03.D	03/29/2017 13:57
MRC-MW73A-032317	240-77205-3	Z24494_25.D	03/29/2017 20:10
MRC-MW73B-032317	240-77205-4	Z24494_27.D	03/29/2017 20:44

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77205-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-115253/1-A

Matrix: Water | Lab File ID: Z24494_04.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 03/28/2017 17:53

Sample wt/vol: 100(mL) | Date Analyzed: 03/29/2017 14:13

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115280 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	97		46-130

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Lab File ID: Z24230_01.D BFB Injection Date: 03/08/2017

Instrument ID: CHZ.i BFB Injection Time: 10:08

Analysis Batch No.: 114713

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 80.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.3	
175	5.0 - 9.0 % of mass 174	4.9	(7.2) 1
176	>95.0 but <101.0 % of mass 174	66.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-114713/2	Z24230_02.D	03/08/2017	10:20
	IC 200-114713/3	Z24230_03.D	03/08/2017	10:37
	IC 200-114713/4	Z24230_04.D	03/08/2017	10:54
	ICIS 200-114713/5	Z24230_05.D	03/08/2017	11:12
	IC 200-114713/6	Z24230_06.D	03/08/2017	11:29
	IC 200-114713/7	Z24230_07.D	03/08/2017	11:46
	IC 200-114713/8	Z24230_08.D	03/08/2017	12:03
	ICV 200-114713/9	Z24230_09.D	03/08/2017	12:21

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-77205-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-77205-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	2773 110705	6218 242998	14480	27995	48146	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	134256 141434	151964 143621	134009	136068	115570	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICV 200-114713/9 Calibration Date: 03/08/2017 12:21

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_09.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5752	0.0500	184	200	-7.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Lab File ID: Z24401_03.D BFB Injection Date: 03/22/2017

Instrument ID: CHZ.i BFB Injection Time: 15:37

Analysis Batch No.: 115085

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 80.0 % of mass 95	45.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	80.7	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	>95.0 but <101.0 % of mass 174	77.4	(95.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVL 200-115085/4	Z24401_04.D	03/22/2017	15:48
	CCVL 200-115280/1	Z24494_01.D	03/29/2017	13:24
	LCS 200-115253/2-A	Z24494_03.D	03/29/2017	13:57
	MB 200-115253/1-A	Z24494_04.D	03/29/2017	14:13
	CCV 200-115280/15	Z24494_15.D	03/29/2017	17:20
MRC-MW73A-032317	240-77205-3	Z24494_25.D	03/29/2017	20:10
	CCV 200-115280/26	Z24494_26.D	03/29/2017	20:27
MRC-MW73B-032317	240-77205-4	Z24494_27.D	03/29/2017	20:44
	CCV 200-115280/28	Z24494_28.D	03/29/2017	21:01

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCVL 200-115085/4 Calibration Date: 03/22/2017 15:48

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_04.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7735	0.0500	12.4	10.0	23.9	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6057	0.0500	502	500	0.3	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCVL 200-115280/1 Calibration Date: 03/29/2017 13:24

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24494_01.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7159	0.0500	11.5	10.0	14.6	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7157	0.0500	593	500	18.6	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCV 200-115280/15 Calibration Date: 03/29/2017 17:20

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24494_15.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6745	0.0500	108	100	8.0	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7222	0.0500	598	500	19.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCV 200-115280/26 Calibration Date: 03/29/2017 20:27

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24494_26.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7142	0.0500	915	800	14.4	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6908	0.0500	572	500	14.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCV 200-115280/28 Calibration Date: 03/29/2017 21:01

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24494_28.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7007	0.0500	112	100	12.2	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7382	0.0500	611	500	22.3	30.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Sample No.: ICIS 200-114713/5 Date Analyzed: 03/08/2017 11:12

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24230_05.D Heated Purge: (Y/N) N

Calibration ID: 36785

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224595	3.32				
UPPER LIMIT		336893	3.82				
LOWER LIMIT		112298	2.82				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-114713/9		202920	3.32				
CCVL 200-115085/4		270907	3.25				
CCVL 200-115280/1		217503	3.22				
LCS 200-115253/2-A		222709	3.23				
MB 200-115253/1-A		244553	3.23				
CCV 200-115280/15		228305	3.23				
240-77205-3	MRC-MW73A-032317	248813	3.23				
CCV 200-115280/26		234077	3.23				
240-77205-4	MRC-MW73B-032317	239374	3.22				
CCV 200-115280/28		232848	3.23				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-114713/1		03/08/2017 10:08	1	Z24230_01.D	Rxi-5ms 0.25(mm)
IC 200-114713/2		03/08/2017 10:20	1	Z24230_02.D	Rxi-5ms 0.25(mm)
IC 200-114713/3		03/08/2017 10:37	1	Z24230_03.D	Rxi-5ms 0.25(mm)
IC 200-114713/4		03/08/2017 10:54	1	Z24230_04.D	Rxi-5ms 0.25(mm)
ICIS 200-114713/5		03/08/2017 11:12	1	Z24230_05.D	Rxi-5ms 0.25(mm)
IC 200-114713/6		03/08/2017 11:29	1	Z24230_06.D	Rxi-5ms 0.25(mm)
IC 200-114713/7		03/08/2017 11:46	1	Z24230_07.D	Rxi-5ms 0.25(mm)
IC 200-114713/8		03/08/2017 12:03	1	Z24230_08.D	Rxi-5ms 0.25(mm)
ICV 200-114713/9		03/08/2017 12:21	1	Z24230_09.D	Rxi-5ms 0.25(mm)
CCVL 200-114713/10		03/08/2017 13:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 13:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:43	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:02	1		Rxi-5ms 0.25(mm)
CCV 200-114713/23		03/08/2017 17:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:07	1		Rxi-5ms 0.25(mm)
CCV 200-114713/37		03/08/2017 21:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:42	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/09/2017 00:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:17	1		Rxi-5ms 0.25(mm)
CCV 200-114713/48		03/09/2017 00:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:51	1		Rxi-5ms 0.25(mm)
CCV 200-114713/50		03/09/2017 01:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:34	1		Rxi-5ms 0.25(mm)
CCV 200-114713/54		03/09/2017 09:50	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/22/2017 15:37

Analysis Batch Number: 115085 End Date: 03/23/2017 09:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-115085/3		03/22/2017 15:37	1	Z24401_03.D	Rxi-5ms 0.25(mm)
CCVL 200-115085/4		03/22/2017 15:48	1	Z24401_04.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:12	1		Rxi-5ms 0.25(mm)
CCV 200-115085/17		03/22/2017 19:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:09	1		Rxi-5ms 0.25(mm)
CCV 200-115085/31		03/22/2017 23:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:50	1		Rxi-5ms 0.25(mm)
CCV 200-115085/37		03/23/2017 01:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 08:57	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 09:13	2		Rxi-5ms 0.25(mm)
CCV 200-115085/40		03/23/2017 09:30	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/29/2017 13:24

Analysis Batch Number: 115280 End Date: 03/30/2017 10:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-115280/1		03/29/2017 13:24	1	Z24494_01.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 13:40	1		Rxi-5ms 0.25(mm)
LCS 200-115253/2-A		03/29/2017 13:57	1	Z24494_03.D	Rxi-5ms 0.25(mm)
MB 200-115253/1-A		03/29/2017 14:13	1	Z24494_04.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 14:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 14:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 15:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 15:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 15:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 15:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 16:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 16:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 16:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 17:03	1		Rxi-5ms 0.25(mm)
CCV 200-115280/15		03/29/2017 17:20	1	Z24494_15.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 17:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 17:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 18:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 18:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 18:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 19:02	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 19:19	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 19:36	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/29/2017 19:53	1		Rxi-5ms 0.25(mm)
240-77205-3		03/29/2017 20:10	1	Z24494_25.D	Rxi-5ms 0.25(mm)
CCV 200-115280/26		03/29/2017 20:27	1	Z24494_26.D	Rxi-5ms 0.25(mm)
240-77205-4		03/29/2017 20:44	1	Z24494_27.D	Rxi-5ms 0.25(mm)
CCV 200-115280/28		03/29/2017 21:01	1	Z24494_28.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/30/2017 10:11	2		Rxi-5ms 0.25(mm)
CCV 200-115280/30		03/30/2017 10:27	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-77205-1

SDG No.:

Batch Number: 115253 Batch Start Date: 03/28/17 17:53 Batch Analyst: Keith, Robert C

Batch Method: 3535A Batch End Date: 03/28/17 18:32

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00025		
MB 200-115253/1		3535A, 522		100 mL	2000 uL		100 uL		
LCS 200-115253/2		3535A, 522		100 mL	2000 uL	100 uL	100 uL		
240-77205-A-3	MRC-MW73A-032317	3535A, 522	T	100 mL	2000 uL		100 uL		
240-77205-D-4	MRC-MW73B-032317	3535A, 522	T	100 mL	2000 uL		100 uL		

Batch Notes	
Acid ID	1004720
Acid Name	HCl
First End time	1832
Analyst ID - Reagent Drop Witness	MJZ
Solvent Lot #	1023323
Solvent Name	MeCl2
SPE Cartridge ID	8088705
First Start time	1753

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	13CDCB #
MRC-MW104A-032317	240-77205-1	76
MRC-MW104B-032317	240-77205-2	86
	MB 680-473802/6-A	84
	LCS 680-473802/7-A	96
	LCSD 680-473802/8-A	99

	QC LIMITS
13CDCB = Decachlorobiphenyl-13C12	25-113

Column to be used to flag recovery values

FORM II 680

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc3107.D

Lab ID: LCS 680-473802/7-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	6.27	104	62-130	
Hexachlorobiphenyl	4.00	4.04	101	62-130	
Nonachlorobiphenyl	10.0	18.4	184	70-195	
Octachlorobiphenyl	6.00	6.06	101	64-130	
Monochlorobiphenyl	2.00	1.70	85	42-130	
DCB Decachlorobiphenyl	10.0	9.82	98	59-130	
Dichlorobiphenyl	2.00	1.86	93	49-130	
Pentachlorobiphenyl	4.00	4.07	102	63-130	
Tetrachlorobiphenyl	4.00	3.97	99	54-130	
Trichlorobiphenyl	2.00	1.92	96	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xc3108.D

Lab ID: LCSD 680-473802/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	6.39	106	2	40	62-130	
Hexachlorobiphenyl	4.00	4.08	102	1	40	62-130	
Nonachlorobiphenyl	10.0	19.0	190	3	40	70-195	
Octachlorobiphenyl	6.00	6.35	106	5	40	64-130	
Monochlorobiphenyl	2.00	1.83	91	7	40	42-130	
DCB Decachlorobiphenyl	10.0	9.93	99	1	40	59-130	
Dichlorobiphenyl	2.00	1.97	98	6	40	49-130	
Pentachlorobiphenyl	4.00	4.14	104	2	40	63-130	
Tetrachlorobiphenyl	4.00	4.22	105	6	40	54-130	
Trichlorobiphenyl	2.00	1.99	100	4	40	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Lab File ID: xc3106.D Lab Sample ID: MB 680-473802/6-A

Matrix: Water Date Extracted: 03/27/2017 12:57

Instrument ID: CMSX Date Analyzed: 03/31/2017 13:00

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-473802/7-A	xc3107.D	03/31/2017 13:29
	LCSD 680-473802/8-A	xc3108.D	03/31/2017 13:58
MRC-MW104A-032317	240-77205-1	xc3112.D	03/31/2017 15:54
MRC-MW104B-032317	240-77205-2	xc3113.D	03/31/2017 16:23

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77205-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-473802/6-A

Matrix: Water | Lab File ID: xc3106.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 03/27/2017 12:57

Sample wt/vol: 1000(mL) | Date Analyzed: 03/31/2017 13:00

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 474122 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.0054	U	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0065	U	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	84		25-113

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Lab File ID: xc0102.D DFTPP Injection Date: 03/01/2017

Instrument ID: CMSX DFTPP Injection Time: 09:09

Analysis Batch No.: 470826

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	59.1
197	Less than 1 % of mass 198	0.5
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	5.9
275	10 - 30% of mass 198	28.9
365	Greater than 1% of mass 198	5.0
441	Present but less than mass 443	15.0 (78.2) 2
442	Greater than 40% of mass 198	94.1
443	17 - 23% of mass 442	19.1 (20.3) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 680-470826/5	xc0105.D	03/01/2017	10:40
	IC 680-470826/6	xc0106.D	03/01/2017	11:09
	IC 680-470826/7	xc0107.D	03/01/2017	11:38
	IC 680-470826/8	xc0108.D	03/01/2017	12:07
	ICISAV 680-470826/18	xc0109.D	03/01/2017	12:36
	ICV 680-470826/9	xc0110.D	03/01/2017	13:05

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-77205-1 Analy Batch No.: 470826

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2017 10:40 Calibration End Date: 03/01/2017 12:36 Calibration ID: 50854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-470826/8	xc0108.D
Level 2	IC 680-470826/7	xc0107.D
Level 3	ICISAV 680-470826/18	xc0109.D
Level 4	IC 680-470826/6	xc0106.D
Level 5	IC 680-470826/5	xc0105.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.8416	0.7627	0.7274	0.7606	0.8593	Ave		0.7903				7.2		20.0			
Dichlorobiphenyl	0.5708	0.5190	0.5508	0.5792	0.6622	Ave		0.5764				9.2		20.0			
Trichlorobiphenyl	0.4207	0.3956	0.3850	0.4065	0.4645	Ave		0.4144				7.5		20.0			
PCB-104			0.3635			Ave		0.3635						30.0			
Tetrachlorobiphenyl	0.3178	0.2888	0.2922	0.3061	0.3378	Ave		0.3085				6.5		20.0			
Pentachlorobiphenyl	0.2712	0.2483	0.2566	0.2684	0.2960	Ave		0.2681				6.8		20.0			
PCB-77			0.4422			Ave		0.4422						30.0			
Hexachlorobiphenyl	0.2740	0.2570	0.2623	0.2761	0.2992	Ave		0.2737				6.0		20.0			
Heptachlorobiphenyl	0.2480	0.2272	0.2314	0.2438	0.2678	Ave		0.2436				6.6		20.0			
Octachlorobiphenyl	0.2242	0.2042	0.2047	0.2209	0.2397	Ave		0.2187				6.8		20.0			
PCB-208			0.0838			Ave		0.0838						30.0			
Nonachlorobiphenyl			0.0638			Ave		0.0437				4.1		20.0			
DCB Decachlorobiphenyl	0.0450	0.0411	0.0430	0.0436	0.0457	Ave		0.0437				4.1		20.0			
gamma-BHC-13C6 (Surr)	0.1735	0.1703	0.1703	0.1835	0.1495	Ave		0.1694				7.3		50.0			
Decachlorobiphenyl-13C12	0.0541	0.0574	0.0574	0.0574	0.0609	Ave		0.0574				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Savannah Job No.: 240-77205-1 Analy Batch No.: 470826

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/01/2017 10:40 Calibration End Date: 03/01/2017 12:36 Calibration ID: 50854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-470826/8	xc0108.D
Level 2	IC 680-470826/7	xc0107.D
Level 3	ICISAV 680-470826/18	xc0109.D
Level 4	IC 680-470826/6	xc0106.D
Level 5	IC 680-470826/5	xc0105.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Monochlorobiphenyl	CRY	Ave	3151	13342	26104	56643	163189	0.100	0.500	1.00	2.00	5.00
Dichlorobiphenyl	CRY	Ave	2137	9079	19768	43138	125759	0.100	0.500	1.00	2.00	5.00
Trichlorobiphenyl	CRY	Ave	1575	6919	13816	30274	88206	0.100	0.500	1.00	2.00	5.00
PCB-104	CRY	Ave			26087					2.00		
Tetrachlorobiphenyl	CRY	Ave	2380	10102	20971	45599	128289	0.200	1.00	2.00	4.00	10.0
Pentachlorobiphenyl	CRY	Ave	2031	8685	18421	39972	112408	0.200	1.00	2.00	4.00	10.0
PCB-77	CRY	Ave			31741					2.00		
Hexachlorobiphenyl	CRY	Ave	2052	8992	18825	41121	113658	0.200	1.00	2.00	4.00	10.0
Heptachlorobiphenyl	CRY	Ave	2786	11920	24915	54470	152551	0.300	1.50	3.00	6.00	15.0
Octachlorobiphenyl	CRY	Ave	2518	10716	22044	49361	136549	0.300	1.50	3.00	6.00	15.0
PCB-208	CRY	Ave			12030					4.00		
Nonachlorobiphenyl	CRY	Ave			11445					5.00		
DCB Decachlorobiphenyl	CRY	Ave	842	3591	7713	16249	43364	0.500	2.50	5.00	10.0	25.0
gamma-BHC-13C6 (Surr)	CRY	Ave	1299	5958	12225	27332	56781	0.200	1.00	2.00	4.00	10.0
Decachlorobiphenyl-13C12	CRY	Ave	1013	5020	10297	21381	46261	0.500	2.50	5.00	10.0	20.0

Curve Type Legend:
Ave = Average ISTD

FORM VII
PCBS CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICV 680-470826/9 Calibration Date: 03/01/2017 13:05

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc0110.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.6886		0.871	1.00	-12.9	20.0
Dichlorobiphenyl	Ave	0.5764	0.4994		0.866	1.00	-13.4	20.0
Trichlorobiphenyl	Ave	0.4144	0.3972		0.958	1.00	-4.2	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.2959		1.92	2.00	-4.1	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2467		1.84	2.00	-8.0	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2514		1.84	2.00	-8.2	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2286		2.82	3.00	-6.2	20.0
Octachlorobiphenyl	Ave	0.2187	0.2104		2.89	3.00	-3.8	20.0
Nonachlorobiphenyl	Ave	0.0638	0.0837		7.66	4.00	31.2*	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0433		4.95	5.00	-0.9	20.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0588		5.12	5.00	2.4	20.0

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Lab File ID: xc3102.D DFTPP Injection Date: 03/31/2017

Instrument ID: CMSX DFTPP Injection Time: 11:00

Analysis Batch No.: 474122

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	56.4
197	Less than 1 % of mass 198	0.3
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.9
275	10 - 30% of mass 198	29.6
365	Greater than 1% of mass 198	5.6
441	Present but less than mass 443	16.7 (83.1) 2
442	Greater than 40% of mass 198	101.6
443	17 - 23% of mass 442	20.1 (19.8) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-474122/2	xc3103.D	03/31/2017	11:31
	CCVIS 680-474122/3	xc3104.D	03/31/2017	12:02
	MB 680-473802/6-A	xc3106.D	03/31/2017	13:00
	LCS 680-473802/7-A	xc3107.D	03/31/2017	13:29
	LCSD 680-473802/8-A	xc3108.D	03/31/2017	13:58
MRC-MW104A-032317	240-77205-1	xc3112.D	03/31/2017	15:54
MRC-MW104B-032317	240-77205-2	xc3113.D	03/31/2017	16:23
	CCV 680-474122/20	xc3121.D	03/31/2017	20:13

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Lab Sample ID: CCVIS 680-474122/3 Calibration Date: 03/31/2017 12:02

Instrument ID: CMSX Calib Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 03/01/2017 12:36

Lab File ID: xc3104.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7903	0.7774		0.984	1.00	-1.6	20.0
Dichlorobiphenyl	Ave	0.5764	0.5682		0.986	1.00	-1.4	20.0
Trichlorobiphenyl	Ave	0.4144	0.4306		1.04	1.00	3.9	20.0
Tetrachlorobiphenyl	Ave	0.3085	0.3218		2.09	2.00	4.3	20.0
Pentachlorobiphenyl	Ave	0.2681	0.2766		2.06	2.00	3.2	20.0
Hexachlorobiphenyl	Ave	0.2737	0.2791		2.04	2.00	2.0	20.0
Heptachlorobiphenyl	Ave	0.2436	0.2380		2.93	3.00	-2.3	20.0
Octachlorobiphenyl	Ave	0.2187	0.2142		2.94	3.00	-2.1	20.0
DCB Decachlorobiphenyl	Ave	0.0437	0.0418		4.79	5.00	-4.2	20.0
gamma-BHC-13C6 (Surr)	Ave	0.1694	0.1871		2.21	2.00	10.4	50.0
Decachlorobiphenyl-13C12	Ave	0.0574	0.0554		4.82	5.00	-3.6	20.0

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Instrument ID: CMSX Calibration Start Date: 03/01/2017 10:40

GC Column: HP-5MS ID: 0.25(mm) Calibration End Date: 03/01/2017 12:36

Calibration ID: 50854

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		26910	10.11	27530	16.20		
UPPER LIMIT		40365	10.61	41295	16.70		
LOWER LIMIT		13455	9.61	13765	15.70		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-470826/9		27104	10.11	28137	16.20		
CCVIS 680-474122/3		30598	10.11	30203	16.22		
MB 680-473802/6-A		29010	10.13	28045	16.22		
LCS 680-473802/7-A		27660	10.11	25170	16.22		
LCSD 680-473802/8-A		28956	10.11	26838	16.22		
240-77205-1	MRC-MW104A-032317	30942	10.11	40254*	16.20		
240-77205-2	MRC-MW104B-032317	35483	10.11	36296	16.20		
CCV 680-474122/20		36827	10.11	38905	16.22		

Sample area is within range of average initial calibration. No validation required.

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Sample No.: CCVIS 680-474122/3 Date Analyzed: 03/31/2017 12:02

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm)

Lab File ID (Standard): xc3104.D Heated Purge: (Y/N) N

Calibration ID: 50854

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		30598	10.11	30203	16.22		
UPPER LIMIT		39777	10.61	39264	16.72		
LOWER LIMIT		21419	9.61	21142	15.72		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-473802/6-A		29010	10.13	28045	16.22		
LCS 680-473802/7-A		27660	10.11	25170	16.22		
LCSD 680-473802/8-A		28956	10.11	26838	16.22		
240-77205-1	MRC-MW104A-032317	30942	10.11	40254*	16.20		
240-77205-2	MRC-MW104B-032317	35483	10.11	36296	16.20		
CCV 680-474122/20		36827	10.11	38905	16.22		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Instrument ID: CMSX Start Date: 03/01/2017 09:09

Analysis Batch Number: 470826 End Date: 03/01/2017 16:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 680-470826/2		03/01/2017 09:09	1	xc0102.D	HP-5MS 0.25(mm)
WDM 680-470826/3		03/01/2017 09:40	1		HP-5MS 0.25(mm)
IC 680-470826/5		03/01/2017 10:40	1	xc0105.D	HP-5MS 0.25(mm)
IC 680-470826/6		03/01/2017 11:09	1	xc0106.D	HP-5MS 0.25(mm)
IC 680-470826/7		03/01/2017 11:38	1	xc0107.D	HP-5MS 0.25(mm)
IC 680-470826/8		03/01/2017 12:07	1	xc0108.D	HP-5MS 0.25(mm)
ICISAV 680-470826/18		03/01/2017 12:36	1	xc0109.D	HP-5MS 0.25(mm)
ICV 680-470826/9		03/01/2017 13:05	1	xc0110.D	HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 13:34	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 14:03	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 14:32	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 15:01	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 15:30	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 15:59	1		HP-5MS 0.25(mm)
ZZZZZ		03/01/2017 16:28	1		HP-5MS 0.25(mm)
CCV 680-470826/17		03/01/2017 16:57	1		HP-5MS 0.25(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Instrument ID: CMSX Start Date: 03/31/2017 11:00

Analysis Batch Number: 474122 End Date: 03/31/2017 20:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 680-474122/1		03/31/2017 11:00	1	xc3102.D	HP-5MS 0.25(mm)
WDM 680-474122/2		03/31/2017 11:31	1	xc3103.D	HP-5MS 0.25(mm)
CCVIS 680-474122/3		03/31/2017 12:02	1	xc3104.D	HP-5MS 0.25(mm)
MB 680-473802/6-A		03/31/2017 13:00	1	xc3106.D	HP-5MS 0.25(mm)
LCS 680-473802/7-A		03/31/2017 13:29	1	xc3107.D	HP-5MS 0.25(mm)
LCSD 680-473802/8-A		03/31/2017 13:58	1	xc3108.D	HP-5MS 0.25(mm)
ZZZZZ		03/31/2017 14:27	1		HP-5MS 0.25(mm)
ZZZZZ		03/31/2017 14:56	1		HP-5MS 0.25(mm)
ZZZZZ		03/31/2017 15:25	1		HP-5MS 0.25(mm)
240-77205-1		03/31/2017 15:54	1	xc3112.D	HP-5MS 0.25(mm)
240-77205-2		03/31/2017 16:23	1	xc3113.D	HP-5MS 0.25(mm)
CCV 680-474122/20		03/31/2017 20:13	1	xc3121.D	HP-5MS 0.25(mm)

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Batch Number: 473802 Batch Start Date: 03/27/17 12:57 Batch Analyst: Wilson, Charles E

Batch Method: 680 Batch End Date: 03/28/17 06:58

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH
240-77205-D-1	MRC-MW104A-032317	680, 680	T	7 SU	1549.8 g	504.0 g	1045.8 mL	1 mL	7 SU
240-77205-D-2	MRC-MW104B-032317	680, 680	T	6 SU	1506.0 g	502.3 g	1003.7 mL	1 mL	6 SU
MB 680-473802/6		680, 680		7 SU			1000 mL	1 mL	7 SU
LCS 680-473802/7		680, 680		7 SU			1000 mL	1 mL	7 SU
LCSD 680-473802/8		680, 680		7 SU			1000 mL	1 mL	7 SU

Lab Sample ID	Client Sample ID	Method Chain	Basis	ResidualChloCheck	680wkSPIKE 00108	680wkSURR-NEW 00017			
240-77205-D-1	MRC-MW104A-032317	680, 680	T	N		1 mL			
240-77205-D-2	MRC-MW104B-032317	680, 680	T	N		1 mL			
MB 680-473802/6		680, 680		N		1 mL			
LCS 680-473802/7		680, 680		N	1 mL	1 mL			
LCSD 680-473802/8		680, 680		N	1 mL	1 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-77205-1

SDG No.:

Batch Number: 473802 Batch Start Date: 03/27/17 12:57 Batch Analyst: Wilson, Charles E

Batch Method: 680 Batch End Date: 03/28/17 06:58

Batch Notes	
Balance ID	23
Batch Comment	680 box M680-100
Concentration End Time	1148
Concentration Start Time	1111
Analyst ID - Concentration	RKL
Exchange Solvent ID	5004301
Exchange Solvent Name	Hexanes
Exchange Solvent Volume Used	1 mL
Extraction 1 End Time	0658
Extraction 1 Start Time	1257
pH Paper ID	4785212 4961266 4923424
Pipette ID	AA02G
Prep Solvent ID	4975501
Prep Solvent Name	MeCL2
Prep Solvent Volume Used	70 mL
Person's name who did the prep	CEW
Analyst ID - Reagent Drop Witness	JC/CEW
Residual Chlorine Indicator ID	4852916
Analyst ID - Spike Analyst	CEW
Analyst ID - Spike Witness Analyst	CEW
Sufficient volume for MS/MSD?	No
Vial ID	84873

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-77205-1

SDG No.:

Project: MRC 2017 GW

Client Sample ID	Lab Sample ID
MRC-MW73A-032317	240-77205-3
MRC-MW73B-032317	240-77205-4

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00189

Analyte	ICV 240-272545/7 03/29/2017 10:37				CCV 240-272545/40 03/29/2017 13:03							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	53.4		50.0	107				
Arsenic	40.0		40.0	100	49.5		50.0	99				
Barium	38.5		40.0	96	54.1		50.0	108				
Beryllium	39.0		40.0	97	48.2		50.0	96				
Cadmium	40.1		40.0	100	51.6		50.0	103				
Chromium	39.8		40.0	99	49.7		50.0	99				
Cobalt	40.4		40.0	101	50.9		50.0	102				
Copper	40.4		40.0	101	50.8		50.0	102				
Iron	10000		10000	100	12600		12500	101				
Lead	39.3		40.0	98	50.3		50.0	101				
Manganese	194		200	97	247		250	99				
Molybdenum	39.5		40.0	99	51.1		50.0	102				
Nickel	40.6		40.0	101	50.9		50.0	102				
Selenium	40.8		40.0	102	50.6		50.0	101				
Silver	40.2		40.0	100	50.6		50.0	101				
Thallium	38.3		40.0	96	49.1		50.0	98				
Vanadium	40.3		40.0	101	50.0		50.0	100				
Zinc	40.6		40.0	102	53.6		50.0	107				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00190

Analyte	ICV 240-272545/7 03/29/2017 10:37				CCV 240-272545/28 03/29/2017 12:13				CCV 240-272545/46 03/29/2017 13:28			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	49.4		50.0	99	51.2		50.0	102
Arsenic	40.0		40.0	100	48.2		50.0	96	48.4		50.0	97
Barium	38.5		40.0	96	51.8		50.0	104	53.5		50.0	107
Beryllium	39.0		40.0	97	46.3		50.0	93				
Cadmium	40.1		40.0	100	50.7		50.0	101	50.5		50.0	101
Chromium	39.8		40.0	99	48.1		50.0	96	48.9		50.0	98
Cobalt	40.4		40.0	101	49.1		50.0	98	49.3		50.0	99
Copper	40.4		40.0	101	49.1		50.0	98	49.5		50.0	99
Iron	10000		10000	100	12300		12500	98	12300		12500	98
Lead	39.3		40.0	98	49.3		50.0	99	50.0		50.0	100
Manganese	194		200	97	241		250	96	241		250	97
Molybdenum	39.5		40.0	99	49.4		50.0	99	49.1		50.0	98
Nickel	40.6		40.0	101	48.6		50.0	97	48.7		50.0	97
Selenium	40.8		40.0	102	48.9		50.0	98	49.7		50.0	99
Silver	40.2		40.0	100	49.8		50.0	100	50.0		50.0	100
Thallium	38.3		40.0	96	47.8		50.0	96	48.1		50.0	96
Vanadium	40.3		40.0	101	48.4		50.0	97	49.6		50.0	99
Zinc	40.6		40.0	102	51.4		50.0	103	53.5		50.0	107

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-272545/9 03/29/2017 10:45				CCVL 240-272545/45 03/29/2017 13:24							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.12		2.00	106	2.20		2.00	110				
Arsenic	4.85	J	5.00	97	4.87	J	5.00	97				
Barium	4.72	J	5.00	94	5.40		5.00	108				
Beryllium	0.888	J	1.00	89	0.957	J	1.00	96				
Cadmium	0.990	J	1.00	99	1.10		1.00	110				
Chromium	1.97	J	2.00	98	2.04		2.00	102				
Cobalt	1.05		1.00	105	1.06		1.00	106				
Copper	2.18		2.00	109	2.21		2.00	111				
Iron	110		100	110	112		100	112				
Lead	1.02		1.00	102	1.12		1.00	112				
Manganese	4.96	J	5.00	99	5.09		5.00	102				
Molybdenum	4.97	J	5.00	99	5.10	J	5.00	102				
Nickel	2.10		2.00	105	2.06		2.00	103				
Selenium	4.91	J	5.00	98	5.26		5.00	105				
Silver	0.994	J	1.00	99	1.01		1.00	101				
Thallium	0.986	J	1.00	99	1.00		1.00	100				
Vanadium	4.90	J	5.00	98	5.47		5.00	109				
Zinc	21.3		20.0	107	23.4		20.0	117				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00189

Analyte	ICV 240-272548/7 03/29/2017 14:34				CCV 240-272548/26 03/29/2017 15:55							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	50.4		50.0	101				
Arsenic	40.2		40.0	100	51.0		50.0	102				
Barium	40.0		40.0	100	52.2		50.0	104				
Beryllium	40.3		40.0	101	49.0		50.0	98				
Cadmium	40.5		40.0	101	52.0		50.0	104				
Chromium	41.1		40.0	103	51.1		50.0	102				
Cobalt	41.3		40.0	103	51.8		50.0	104				
Copper	40.6		40.0	102	49.5		50.0	99				
Iron	10300		10000	103	12700		12500	102				
Lead	40.5		40.0	101	52.0		50.0	104				
Manganese	209		200	104	257		250	103				
Molybdenum	39.8		40.0	100	52.5		50.0	105				
Nickel	42.0		40.0	105	50.8		50.0	102				
Selenium	42.3		40.0	106	51.5		50.0	103				
Silver	41.1		40.0	103	51.5		50.0	103				
Thallium	39.0		40.0	97	49.1		50.0	98				
Vanadium	41.8		40.0	105	50.5		50.0	101				
Zinc	41.4		40.0	103	52.4		50.0	105				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00190

Analyte	ICV 240-272548/7 03/29/2017 14:34				CCV 240-272548/14 03/29/2017 15:05							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	48.8		50.0	98				
Arsenic	40.2		40.0	100	49.2		50.0	98				
Barium	40.0		40.0	100	50.5		50.0	101				
Beryllium	40.3		40.0	101	49.0		50.0	98				
Cadmium	40.5		40.0	101	51.3		50.0	103				
Chromium	41.1		40.0	103	51.0		50.0	102				
Cobalt	41.3		40.0	103	51.6		50.0	103				
Copper	40.6		40.0	102	50.3		50.0	101				
Iron	10300		10000	103	12800		12500	103				
Lead	40.5		40.0	101	51.9		50.0	104				
Manganese	209		200	104	256		250	102				
Molybdenum	39.8		40.0	100	50.8		50.0	102				
Nickel	42.0		40.0	105	51.5		50.0	103				
Selenium	42.3		40.0	106	51.5		50.0	103				
Silver	41.1		40.0	103	51.7		50.0	103				
Thallium	39.0		40.0	97	48.3		50.0	97				
Vanadium	41.8		40.0	105	50.0		50.0	100				
Zinc	41.4		40.0	103	51.6		50.0	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00189

Analyte	ICVL 240-272548/9 03/29/2017 14:42				CCV 240-272548/26 03/29/2017 15:55							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.10		2.00	105	50.4		50.0	101				
Arsenic	4.81	J	5.00	96	51.0		50.0	102				
Barium	4.73	J	5.00	95	52.2		50.0	104				
Beryllium	0.907	J	1.00	91	49.0		50.0	98				
Cadmium	1.03		1.00	103	52.0		50.0	104				
Chromium	2.11		2.00	106	51.1		50.0	102				
Cobalt	1.08		1.00	108	51.8		50.0	104				
Copper	2.06		2.00	103	49.5		50.0	99				
Iron	114		100	114	12700		12500	102				
Lead	1.04		1.00	104	52.0		50.0	104				
Manganese	5.26		5.00	105	257		250	103				
Molybdenum	5.41	J	5.00	108	52.5		50.0	105				
Nickel	2.14		2.00	107	50.8		50.0	102				
Selenium	5.01		5.00	100	51.5		50.0	103				
Silver	1.02		1.00	102	51.5		50.0	103				
Thallium	0.990	J	1.00	99	49.1		50.0	98				
Vanadium	5.18		5.00	104	50.5		50.0	101				
Zinc	20.3		20.0	101	52.4		50.0	105				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00190

Analyte	ICVL 240-272548/9 03/29/2017 14:42				CCV 240-272548/14 03/29/2017 15:05							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.10		2.00	105	48.8		50.0	98				
Arsenic	4.81	J	5.00	96	49.2		50.0	98				
Barium	4.73	J	5.00	95	50.5		50.0	101				
Beryllium	0.907	J	1.00	91	49.0		50.0	98				
Cadmium	1.03		1.00	103	51.3		50.0	103				
Chromium	2.11		2.00	106	51.0		50.0	102				
Cobalt	1.08		1.00	108	51.6		50.0	103				
Copper	2.06		2.00	103	50.3		50.0	101				
Iron	114		100	114	12800		12500	103				
Lead	1.04		1.00	104	51.9		50.0	104				
Manganese	5.26		5.00	105	256		250	102				
Molybdenum	5.41	J	5.00	108	50.8		50.0	102				
Nickel	2.14		2.00	107	51.5		50.0	103				
Selenium	5.01		5.00	100	51.5		50.0	103				
Silver	1.02		1.00	102	51.7		50.0	103				
Thallium	0.990	J	1.00	99	48.3		50.0	97				
Vanadium	5.18		5.00	104	50.0		50.0	100				
Zinc	20.3		20.0	101	51.6		50.0	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00189

Analyte	ICV 240-272731/7 03/30/2017 12:05				CCV 240-272731/44 03/30/2017 14:49							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	40.4		40.0	101	45.8		50.0	92				
Antimony	40.3		40.0	101	51.2		50.0	102				
Arsenic	41.0		40.0	102	50.3		50.0	101				
Barium	39.5		40.0	99	51.2		50.0	102				
Cadmium	41.4		40.0	104	51.5		50.0	103				
Chromium	40.3		40.0	101	52.2		50.0	104				
Cobalt	40.6		40.0	101	53.0		50.0	106				
Copper	40.7		40.0	102	48.8		50.0	98				
Iron	10100		10000	101	13200		12500	106				
Lead	41.3		40.0	103	51.7		50.0	103				
Manganese	198		200	99	255		250	102				
Molybdenum	40.0		40.0	100	50.0		50.0	100				
Nickel	41.1		40.0	103	53.1		50.0	106				
Selenium	42.8		40.0	107	49.9		50.0	100				
Silver	41.1		40.0	103	50.5		50.0	101				
Thallium	40.1		40.0	100	50.3		50.0	101				
Vanadium	40.8		40.0	102	52.7		50.0	105				
Zinc	40.0		40.0	100	49.4		50.0	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00190

Analyte	ICV 240-272731/7 03/30/2017 12:05				CCV 240-272731/50 03/30/2017 15:14							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	40.4		40.0	101	46.6		50.0	93				
Antimony	40.3		40.0	101	49.9		50.0	100				
Arsenic	41.0		40.0	102	50.0		50.0	100				
Barium	39.5		40.0	99	52.3		50.0	105				
Cadmium	41.4		40.0	104	52.9		50.0	106				
Chromium	40.3		40.0	101	51.7		50.0	103				
Cobalt	40.6		40.0	101	52.8		50.0	106				
Copper	40.7		40.0	102	49.0		50.0	98				
Iron	10100		10000	101	13000		12500	104				
Lead	41.3		40.0	103	52.4		50.0	105				
Manganese	198		200	99	255		250	102				
Molybdenum	40.0		40.0	100	51.0		50.0	102				
Nickel	41.1		40.0	103	52.8		50.0	106				
Selenium	42.8		40.0	107	49.8		50.0	100				
Silver	41.1		40.0	103	51.7		50.0	103				
Thallium	40.1		40.0	100	51.2		50.0	102				
Vanadium	40.8		40.0	102	52.2		50.0	104				
Zinc	40.0		40.0	100	50.0		50.0	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-272731/9 03/30/2017 12:14				CCVL 240-272731/52 03/30/2017 15:22							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	0.981	J	1.00	98	0.844	J	1.00	84				
Antimony	2.20		2.00	110	2.01		2.00	100				
Arsenic	5.01		5.00	100	5.03		5.00	101				
Barium	4.95	J	5.00	99	5.24		5.00	105				
Cadmium	1.06		1.00	106	1.06		1.00	106				
Chromium	2.02		2.00	101	2.14		2.00	107				
Cobalt	1.07		1.00	107	1.10		1.00	110				
Copper	2.06		2.00	103	2.02		2.00	101				
Iron	116		100	116	119		100	119				
Lead	1.08		1.00	108	1.19		1.00	119				
Manganese	4.53	J	5.00	91	4.74	J	5.00	95				
Molybdenum	5.04	J	5.00	101	5.03	J	5.00	101				
Nickel	2.22		2.00	111	2.13		2.00	106				
Selenium	5.41		5.00	108	5.70		5.00	114				
Silver	1.04		1.00	104	1.03		1.00	103				
Thallium	1.06		1.00	106	1.05		1.00	105				
Vanadium	4.97	J	5.00	99	5.20		5.00	104				
Zinc	19.0	J	20.0	95	19.0	J	20.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTHgICV_00001_00153 Concentration Units: ug/L

CCV Source: MTHGCALW_01463

Analyte	ICV 240-272159/7-A 03/29/2017 07:02				CCV 240-272159/10-A 03/29/2017 16:19				CCV 240-272159/10-A 03/29/2017 16:44			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.18		5.00	104	4.99		5.00	100	5.14		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICV Source: MTHgICV_00001_00153 Concentration Units: ug/L

CCV Source: MTHGCALW_01463

Analyte	CCV 240-272159/10-A 03/29/2017 17:08				CCV 240-272159/10-A 03/29/2017 17:28							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.10		5.00	102	5.18		5.00	104				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-272159/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01463

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.190	J	95	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-272545/8 03/29/2017 10:41		CCB 240-272545/29 03/29/2017 12:17		CCB 240-272545/41 03/29/2017 13:07		CCB 240-272545/47 03/29/2017 13:33	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	1.16	J	0.719	J	1.21	J	0.922	J
Arsenic	5.0	0.49	U	0.49	U	0.49	U	0.49	U
Barium	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Beryllium	1.0	0.053	U	0.053	U	0.053	U		
Cadmium	1.0	0.061	U	0.061	U	0.0640	J	0.061	U
Chromium	2.0	0.60	U	0.60	U	0.60	U	0.60	U
Cobalt	1.0	0.021	U	0.021	U	0.0350	J	0.0290	J
Copper	2.0	0.75	U	0.75	U	0.75	U	0.75	U
Iron	100	16	U	16	U	16	U	16	U
Lead	1.0	0.11	U	0.11	U	0.11	U	0.11	U
Manganese	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Molybdenum	10	0.539	J	0.637	J	0.849	J	0.590	J
Nickel	2.0	0.23	U	0.23	U	0.23	U	0.23	U
Selenium	5.0	0.25	U	0.25	U	0.25	U	0.25	U
Silver	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Thallium	1.0	0.074	U	0.074	U	0.074	U	0.074	U
Vanadium	5.0	0.23	U	0.23	U	0.23	U	0.23	U
Zinc	20	7.3	U	7.3	U	7.3	U	7.3	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-272548/8 03/29/2017 14:38		CCB 240-272548/15 03/29/2017 15:09		CCB 240-272548/27 03/29/2017 15:59			
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	1.13	J	0.645	J	0.880	J		
Arsenic	5.0	0.49	U	0.49	U	0.49	U		
Barium	5.0	1.1	U	1.1	U	1.1	U		
Beryllium	1.0	0.053	U	0.053	U	0.053	U		
Cadmium	1.0	0.061	U	0.061	U	0.061	U		
Chromium	2.0	0.60	U	0.60	U	0.60	U		
Cobalt	1.0	0.021	U	0.021	U	0.0550	J		
Copper	2.0	0.75	U	0.75	U	0.75	U		
Iron	100	16	U	16	U	16	U		
Lead	1.0	0.11	U	0.11	U	0.11	U		
Manganese	5.0	1.1	U	1.1	U	1.1	U		
Molybdenum	10	0.653	J	1.15	J	1.16	J		
Nickel	2.0	0.23	U	0.23	U	0.23	U		
Selenium	5.0	0.25	U	0.25	U	0.25	U		
Silver	1.0	0.020	U	0.020	U	0.020	U		
Thallium	1.0	0.074	U	0.074	U	0.074	U		
Vanadium	5.0	0.23	U	0.23	U	0.23	U		
Zinc	20	7.3	U	7.3	U	7.3	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-272731/8 03/30/2017 12:09		CCB 240-272731/45 03/30/2017 14:53		CCB 240-272731/51 03/30/2017 15:18			
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	0.053	U	0.0640	J	0.053	U		
Antimony	2.0	1.18	J	0.723	J	0.684	J		
Arsenic	5.0	0.49	U	0.49	U	0.49	U		
Barium	5.0	1.1	U	1.1	U	1.1	U		
Cadmium	1.0	0.061	U	0.061	U	0.061	U		
Chromium	2.0	0.60	U	0.60	U	0.60	U		
Cobalt	1.0	0.021	U	0.0380	J	0.0240	J		
Copper	2.0	0.75	U	0.75	U	0.75	U		
Iron	100	16	U	22.2	J	17.3	J		
Lead	1.0	0.11	U	0.133	J	0.137	J		
Manganese	5.0	1.1	U	1.1	U	1.1	U		
Molybdenum	10	0.609	J	0.651	J	0.659	J		
Nickel	2.0	0.23	U	0.23	U	0.23	U		
Selenium	5.0	0.25	U	0.336	J	0.25	U		
Silver	1.0	0.020	U	0.020	U	0.020	U		
Thallium	1.0	0.074	U	0.074	U	0.074	U		
Vanadium	5.0	0.23	U	0.23	U	0.23	U		
Zinc	20	7.3	U	7.3	U	7.3	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-272159/8-A 03/29/2017 07:04		CCB 240-272159/11-A 03/29/2017 16:21		CCB 240-272159/11-A 03/29/2017 16:46		CCB 240-272159/11-A 03/29/2017 17:10	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-272159/11-A 03/29/2017 17:30							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-272184/1-A

Instrument Code: I10 Batch No.: 272545

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.27	U		6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	0.700	J		6020A
7440-41-7	Beryllium	0.40	U		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.26	U		6020A
7440-50-8	Copper	0.372	J		6020A
7439-89-6	Iron	6.00	J		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	0.25	U		6020A
7440-02-0	Nickel	0.28	U		6020A
7439-92-1	Lead	0.16	U		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	6.2	U		6020A
7440-22-4	Silver	0.030	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-272192/1-A

Instrument Code: H3 Batch No.: 272411

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICSA 240-272545/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.240**	
Arsenic		**0.0650**	
Barium		**0.0490**	
Beryllium		**0.0080**	
Cadmium		**0.203**	
Chromium		**0.628**	
Cobalt		**0.0020**	
Copper		**0.325**	
Iron	**50000**	**48600**	**97**
Lead		**0.111**	
Manganese		**-0.0350**	
Molybdenum	**1000**	**1019**	**102**
Nickel		**0.0180**	
Selenium		**0.0580**	
Silver		**0.0060**	
Thallium		**-0.0090**	
Vanadium		**-0.0210**	
Zinc		**-0.718**	
Aluminum	*50000*	*48966*	*98*
Boron		*0.791*	
Calcium	*50000*	*48837*	*98*
Lithium		*-0.211*	
Magnesium	*50000*	*49211*	*98*
Potassium	*50000*	*48785*	*98*
Sodium	*50000*	*49304*	*99*
Strontium		*0.296*	
Tin		*0.325*	
Titanium	*1000*	*1007*	*101*
Tungsten		*0.710*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICSAB 240-272545/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00075

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**98.8**	**99**
Arsenic	**100**	**96.9**	**97**
Barium	**100**	**95.4**	**95**
Beryllium	**100**	**95.8**	**96**
Cadmium	**100**	**95.7**	**96**
Chromium	**100**	**99.2**	**99**
Cobalt	**100**	**99.9**	**100**
Copper	**100**	**98.1**	**98**
Iron	**50000**	**50080**	**100**
Lead	**100**	**101**	**101**
Manganese	**100**	**96.7**	**97**
Molybdenum	**1100**	**1139**	**104**
Nickel	**100**	**99.7**	**100**
Selenium	**100**	**97.0**	**97**
Silver	**100**	**89.7**	**90**
Thallium	**100**	**103**	**103**
Vanadium	**100**	**97.9**	**98**
Zinc	**100**	**99.9**	**100**
Aluminum	*50000*	*49660*	*99*
Boron	*100*	*96.5*	*97*
Calcium	*50000*	*49432*	*99*
Lithium	*100*	*102*	*102*
Magnesium	*50000*	*49476*	*99*
Potassium	*50000*	*49108*	*98*
Sodium	*50000*	*49681*	*99*
Strontium	*100*	*95.8*	*96*
Tin	*100*	*92.8*	*93*
Titanium	*1100*	*1121*	*102*
Tungsten	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICSA 240-272548/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.180**	
Arsenic		**0.0530**	
Barium		**0.0440**	
Beryllium		**0.0000**	
Cadmium		**0.183**	
Chromium		**0.647**	
Cobalt		**-0.0070**	
Copper		**0.341**	
Iron	**50000**	**49866**	**100**
Lead		**0.111**	
Manganese		**-0.0390**	
Molybdenum	**1000**	**965**	**97**
Nickel		**0.0140**	
Selenium		**-0.0910**	
Silver		**0.0090**	
Thallium		**-0.0120**	
Vanadium		**-0.0270**	
Zinc		**-0.756**	
Aluminum	*50000*	*50317*	*101*
Boron		*-0.873*	
Calcium	*50000*	*49986*	*100*
Lithium		*-0.385*	
Magnesium	*50000*	*49753*	*100*
Potassium	*50000*	*49474*	*99*
Sodium	*50000*	*49899*	*100*
Strontium		*0.298*	
Tin		*0.141*	
Titanium	*1000*	*992*	*99*
Tungsten		*0.685*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICSAB 240-272548/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00075

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**96.7**	**97**
Arsenic	**100**	**97.0**	**97**
Barium	**100**	**102**	**102**
Beryllium	**100**	**98.3**	**98**
Cadmium	**100**	**97.6**	**98**
Chromium	**100**	**103**	**103**
Cobalt	**100**	**102**	**102**
Copper	**100**	**99.8**	**100**
Iron	**50000**	**50927**	**102**
Lead	**100**	**99.9**	**100**
Manganese	**100**	**103**	**103**
Molybdenum	**1100**	**1120**	**102**
Nickel	**100**	**102**	**102**
Selenium	**100**	**101**	**101**
Silver	**100**	**95.0**	**95**
Thallium	**100**	**103**	**103**
Vanadium	**100**	**102**	**102**
Zinc	**100**	**101**	**101**
Aluminum	*50000*	*51051*	*102*
Boron	*100*	*98.4*	*98*
Calcium	*50000*	*50998*	*102*
Lithium	*100*	*102*	*102*
Magnesium	*50000*	*50489*	*101*
Potassium	*50000*	*50358*	*101*
Sodium	*50000*	*50659*	*101*
Strontium	*100*	*101*	*101*
Tin	*100*	*91.5*	*91*
Titanium	*1100*	*1113*	*101*
Tungsten	*100*	*105*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICSA 240-272731/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Beryllium		**0.0060**	
Aluminum	*50000*	*51172*	*102*
Antimony		*0.268*	
Arsenic		*0.0690*	
Barium		*0.0220*	
Boron		*1.23*	
Cadmium		*0.137*	
Calcium	*50000*	*51499*	*103*
Chromium		*0.669*	
Cobalt		*0.0030*	
Copper		*0.326*	
Iron	*50000*	*50640*	*101*
Lead		*0.119*	
Lithium		*0.156*	
Magnesium	*50000*	*51006*	*102*
Manganese		*-0.499*	
Molybdenum	*1000*	*1033*	*103*
Nickel		*0.0380*	
Potassium	*50000*	*50013*	*100*
Selenium		*0.0860*	
Silver		*0.0110*	
Sodium	*50000*	*50845*	*102*
Strontium		*0.310*	
Thallium		*-0.0020*	
Tin		*0.337*	
Titanium	*1000*	*997*	*100*
Tungsten		*0.669*	
Vanadium		*0.0570*	
Zinc		*-2.54*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Lab Sample ID: ICSAB 240-272731/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00075

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Beryllium	**100**	**103**	**103**
Aluminum	*50000*	*51922*	*104*
Antimony	*100*	*96.2*	*96*
Arsenic	*100*	*98.8*	*99*
Barium	*100*	*101*	*101*
Boron	*100*	*101*	*101*
Cadmium	*100*	*101*	*101*
Calcium	*50000*	*51558*	*103*
Chromium	*100*	*104*	*104*
Cobalt	*100*	*103*	*103*
Copper	*100*	*98.5*	*98*
Iron	*50000*	*51645*	*103*
Lead	*100*	*105*	*105*
Lithium	*100*	*106*	*106*
Magnesium	*50000*	*52245*	*104*
Manganese	*100*	*102*	*102*
Molybdenum	*1100*	*1144*	*104*
Nickel	*100*	*103*	*103*
Potassium	*50000*	*50623*	*101*
Selenium	*100*	*102*	*102*
Silver	*100*	*93.3*	*93*
Sodium	*50000*	*51937*	*104*
Strontium	*100*	*99.7*	*100*
Thallium	*100*	*105*	*105*
Tin	*100*	*95.6*	*96*
Titanium	*1100*	*1120*	*102*
Tungsten	*100*	*103*	*103*
Vanadium	*100*	*102*	*102*
Zinc	*100*	*99.9*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Sample not included in SDG.

Client ID: _____ Lab ID: 240-77246-N-4-A MS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	99.5		0.39	J	100	99	75-125		6020A
Arsenic	1010		4.9	J	1000	100	75-125		6020A
Barium	1130		42		1000	109	75-125		6020A
Cadmium	985		0.31	U	1000	99	75-125		6020A
Cobalt	998		0.18	J	1000	100	75-125		6020A
Chromium	999		0.26	U	1000	100	75-125		6020A
Copper	992		0.36	U	1000	99	75-125		6020A
Iron	18800		9100		10000	97	75-125		6020A
Molybdenum	116		8.2	J	100	107	75-125		6020A
Manganese	1930		960		1000	96	75-125		6020A
Nickel	928		0.70	J	1000	93	75-125		6020A
Lead	1010		0.16	U	1000	101	75-125		6020A
Selenium	1010		0.62	J	1000	101	75-125		6020A
Thallium	251		0.28	U	250	100	75-125		6020A
Vanadium	1040		0.54	U	1000	104	75-125		6020A
Zinc	923		6.2	U	1000	92	75-125		6020A
Silver	99.5		0.030	U	100	100	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Sample not included in SDG.

Client ID: _____ Lab ID: 240-77247-O-5-D MS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	92.1		0.27	U	100	92	75-125		6020A
Arsenic	973		18		1000	95	75-125		6020A
Barium	1240		150		1000	108	75-125		6020A
Beryllium	952		0.40	U	1000	95	75-125		6020A
Cadmium	969		0.31	U	1000	97	75-125		6020A
Cobalt	1020		0.13	U	1000	102	75-125		6020A
Chromium	1010		0.26	U	1000	101	75-125		6020A
Copper	1040		0.36	U	1000	104	75-125		6020A
Iron	9750		11	J	10000	97	75-125		6020A
Molybdenum	498		390		100	108	75-125		6020A
Manganese	1040		34		1000	101	75-125		6020A
Nickel	948		0.28	U	1000	95	75-125		6020A
Lead	1100		0.16	U	1000	110	75-125		6020A
Selenium	895		0.48	U	1000	89	75-125		6020A
Thallium	245		0.28	U	250	98	75-125		6020A
Vanadium	1030		0.54	U	1000	103	75-125		6020A
Zinc	952		6.2	U	1000	95	75-125		6020A
Silver	101		0.030	U	100	101	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Sample not included in SDG.

Client ID: _____ Lab ID: 240-77247-O-5-G MS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.10		0.13	U	1.00	110	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

Sample not included in SDG.

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-77246-N-4-B MSD

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	95.1		100	95	75-125	5	20		6020A
Arsenic	992		1000	99	75-125	1	20		6020A
Barium	1120		1000	108	75-125	1	20		6020A
Cadmium	975		1000	97	75-125	1	20		6020A
Cobalt	990		1000	99	75-125	1	20		6020A
Chromium	970		1000	97	75-125	3	20		6020A
Copper	996		1000	100	75-125	0	20		6020A
Iron	18600		10000	95	75-125	1	20		6020A
Molybdenum	116		100	108	75-125	0	20		6020A
Manganese	1910		1000	95	75-125	1	20		6020A
Nickel	919		1000	92	75-125	1	20		6020A
Lead	999		1000	100	75-125	1	20		6020A
Selenium	1000		1000	100	75-125	1	20		6020A
Thallium	248		250	99	75-125	1	20		6020A
Vanadium	999		1000	100	75-125	4	20		6020A
Zinc	912		1000	91	75-125	1	20		6020A
Silver	98.2		100	98	75-125	1	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Sample not included in SDG.

Client ID: _____ Lab ID: 240-77247-O-5-E MSD

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	95.1		100	95	75-125	3	20		6020A
Arsenic	983		1000	96	75-125	1	20		6020A
Barium	1220		1000	107	75-125	1	20		6020A
Beryllium	946		1000	95	75-125	1	20		6020A
Cadmium	964		1000	96	75-125	0	20		6020A
Cobalt	989		1000	99	75-125	4	20		6020A
Chromium	990		1000	99	75-125	2	20		6020A
Copper	1040		1000	104	75-125	0	20		6020A
Iron	9540		10000	95	75-125	2	20		6020A
Molybdenum	479		100	89	75-125	4	20		6020A
Manganese	1020		1000	99	75-125	2	20		6020A
Nickel	925		1000	92	75-125	2	20		6020A
Lead	1070		1000	107	75-125	2	20		6020A
Selenium	899		1000	90	75-125	0	20		6020A
Thallium	242		250	97	75-125	1	20		6020A
Vanadium	1020		1000	102	75-125	1	20		6020A
Zinc	967		1000	97	75-125	2	20		6020A
Silver	100		100	100	75-125	1	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Sample not included in SDG.

Client ID: _____ Lab ID: 240-77247-O-5-H MSD

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.08		1.00	108	80-120	2	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-272184/3-A

Lab Name: TestAmerica Canton Job No.: 240-77205-1

Sample Matrix: Water LCS Source: MTICPMSB_00030

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	90.8		91	80	120		6020A
Arsenic	1000	903		90	80	120		6020A
Barium	1000	976		98	80	120		6020A
Beryllium	1000	953		95	80	120		6020A
Cadmium	1000	979		98	80	120		6020A
Cobalt	1000	969		97	80	120		6020A
Chromium	1000	928		93	80	120		6020A
Copper	1000	995		100	80	120		6020A
Iron	10000	9320		93	80	120		6020A
Molybdenum	100	94.9		95	80	120		6020A
Manganese	1000	947		95	80	120		6020A
Nickel	1000	919		92	80	120		6020A
Lead	1000	982		98	80	120		6020A
Selenium	1000	944		94	80	120		6020A
Thallium	250	240		96	80	120		6020A
Vanadium	1000	932		93	80	120		6020A
Zinc	1000	985		98	80	120		6020A
Silver	100	99.1		99	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-272192/2-A

Lab Name: TestAmerica Canton Job No.: 240-77205-1

Sample Matrix: Water LCS Source: MTHGCALW_01463

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.96		99	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Sample not included in SDG.

Lab ID: 240-77246-M-4-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-77205-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.39	J	1.4	U	NC		6020A
Arsenic	4.9	J	4.23	J	NC		6020A
Barium	42		40.5		NC		6020A
Cadmium	0.31	U	1.6	U	NC		6020A
Cobalt	0.18	J	0.65	U	NC		6020A
Chromium	0.26	U	1.3	U	NC		6020A
Copper	0.36	U	1.8	U	NC		6020A
Iron	9100		9490		NC		6020A
Molybdenum	8.2	J	7.62	J	NC		6020A
Manganese	960		963		0.004		6020A
Nickel	0.70	J	1.4	U	NC		6020A
Lead	0.16	U	0.80	U	NC		6020A
Selenium	0.62	J	2.4	U	NC		6020A
Thallium	0.28	U	1.4	U	NC		6020A
Vanadium	0.54	U	2.7	U	NC		6020A
Zinc	6.2	U	31	U	NC		6020A
Silver	0.030	U	0.15	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77205-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 12/13/2016 11:36

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.27
Arsenic	75.00	5	0.35
Barium	137.00	5	0.52
Beryllium	9.00	1	0.4
Cadmium	111.00	1	0.31
Chromium	52.00	2	0.26
Cobalt	59.00	1	0.13
Copper	65.00	2	0.36
Lead	208.00	1	0.16
Molybdenum	95.00	10	0.51
Nickel	60.00	2	0.28
Selenium	78.00	5	0.48
Silver	107.00	1	0.03
Thallium	205.00	1	0.28
Vanadium	51.00	5	0.54
Zinc	66.00	20	6.22

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77205-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 09/15/2014 17:03

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.16
Arsenic	75.00	5	0.49
Barium	137.00	5	1.1
Beryllium	9.00	1	0.053
Cadmium	111.00	1	0.061
Chromium	52.00	2	0.6
Cobalt	59.00	1	0.021
Copper	65.00	2	0.75
Lead	208.00	1	0.11
Molybdenum	95.00	10	0.23
Nickel	60.00	2	0.23
Selenium	78.00	5	0.25
Silver	107.00	1	0.02
Thallium	205.00	1	0.074
Vanadium	51.00	5	0.23
Zinc	66.00	20	7.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77205-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77205-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-77205-1

SDG No.:

Instrument ID: I10 Date: 10/14/2016 11:32

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Arsenic		10000	6020A
Barium		10000	6020A
Beryllium		2000	6020A
Cadmium		4000	6020A
Cobalt		5000	6020A
Chromium		10000	6020A
Copper		10000	6020A
Molybdenum		2000	6020A
Nickel		10000	6020A
Lead		4000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Vanadium		10000	6020A
Zinc		10000	6020A
Silver		300	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-272184/1-A	03/28/2017 14:00	272184		50	50
LCS 240-272184/3-A	03/28/2017 14:00	272184		50	50
240-77246-N-4-A MS	03/28/2017 14:00	272184		50	50
240-77246-N-4-B MSD	03/28/2017 14:00	272184		50	50
240-77205-3	03/28/2017 14:00	272184		50	50
240-77205-4	03/28/2017 14:00	272184		50	50
240-77247-O-5-D MS	03/28/2017 14:00	272184		50	50
240-77247-O-5-E MSD	03/28/2017 14:00	272184		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-272192/1-A	03/28/2017 15:00	272192		50	50
LCS 240-272192/2-A	03/28/2017 15:00	272192		50	50
240-77205-3	03/28/2017 15:00	272192		50	50
240-77205-4	03/28/2017 15:00	272192		50	50
240-77247-O-5-G MS	03/28/2017 15:00	272192		50	50
240-77247-O-5-H MSD	03/28/2017 15:00	272192		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/29/2017 10:11 End Date: 03/29/2017 13:33

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			10:11																									
ICIS 240-272545/2			10:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-272545/3 IC	1		10:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-272545/4 IC	1		10:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-272545/5 IC	1		10:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-272545/6 IC	1		10:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-272545/7	1		10:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-272545/8	1		10:41	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ICVL 240-272545/9	1		10:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-272545/10	1		10:49	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X								
ICSAB 240-272545/11	1		10:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-272545/12			10:58																									
CCB 240-272545/13			11:02																									
CCV 240-272545/14			11:11																									
CCB 240-272545/15			11:15																									
ZZZZZZ			11:19																									
ZZZZZZ			11:23																									
ZZZZZZ			11:27																									
ZZZZZZ			11:32																									
ZZZZZZ			11:36																									
ZZZZZZ			11:40																									
ZZZZZZ			11:44																									
CCV 240-272545/23			11:48																									
CCB 240-272545/24			11:52																									
ZZZZZZ			11:57																									
ZZZZZZ			12:01																									
ZZZZZZ			12:05																									
CCV 240-272545/28	1		12:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-272545/29	1		12:17	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			12:22																									
ZZZZZZ			12:26																									
ZZZZZZ			12:30																									
MB 240-272184/1-A	1	R	12:34	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
LCS 240-272184/3-A	1	R	12:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			12:42																									
ZZZZZZ			12:46																									
240-77246-M-4-A SD ^5	5	D	12:51	X	X	X		X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			12:55																									
240-77246-N-4-A MS	1	D	12:59	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-272545/40	1		13:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-272545/41	1		13:07	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
240-77246-N-4-B MSD	1	D	13:12	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/29/2017 10:11 End Date: 03/29/2017 13:33

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn										
240-77205-3	1	R	13:16	X	X	X		X	X	X	X			X	X	X	X	X	X	X	X										
240-77205-4	1	R	13:20	X	X	X		X	X	X	X			X	X	X	X	X	X	X	X										
CCVL 240-272545/45	1		13:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCV 240-272545/46	1		13:28	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-272545/47	1		13:33	X	X	X		X	X	X	X			X	X	X	X	X	X	X	X										

Prep Types:
D = Dissolved
R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/29/2017 14:08 End Date: 03/29/2017 22:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			14:08																									
ICIS 240-272548/2			14:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-272548/3 IC			14:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-272548/4 IC			14:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-272548/5 IC			14:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-272548/6 IC			14:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-272548/7	1		14:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-272548/8	1		14:38	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ICVL 240-272548/9	1		14:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-272548/10	1		14:46	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X								
ICSAB 240-272548/11	1		14:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-272548/12			14:55																									
CCB 240-272548/13			14:59																									
CCV 240-272548/14	1		15:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-272548/15	1		15:09	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			15:13																									
ZZZZZZ			15:17																									
ZZZZZZ			15:21																									
ZZZZZZ			15:26																									
ZZZZZZ			15:30																									
ZZZZZZ			15:34																									
ZZZZZZ			15:38																									
240-77247-O-5-D MS	1	R	15:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-77247-O-5-E MSD	1	R	15:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			15:50																									
CCV 240-272548/26	1		15:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-272548/27	1		15:59	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			16:03																									
ZZZZZZ			16:07																									
ZZZZZZ			16:12																									
ZZZZZZ			16:16																									
ZZZZZZ			16:20																									
ZZZZZZ			16:24																									
ZZZZZZ			16:28																									
ZZZZZZ			16:32																									
ZZZZZZ			16:37																									
ZZZZZZ			16:41																									
CCV 240-272548/38			16:45																									
CCB 240-272548/39			16:49																									
ZZZZZZ			16:53																									
ZZZZZZ			16:57																									
ZZZZZZ			17:01																									

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/29/2017 14:08 End Date: 03/29/2017 22:41

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			17:06																										
ZZZZZZ			17:10																										
ZZZZZZ			17:14																										
ZZZZZZ			17:18																										
ZZZZZZ			17:22																										
ZZZZZZ			17:27																										
ZZZZZZ			17:31																										
CCV 240-272548/50			17:35																										
CCB 240-272548/51			17:39																										
ZZZZZZ			17:43																										
ZZZZZZ			17:47																										
ZZZZZZ			17:52																										
ZZZZZZ			17:56																										
ZZZZZZ			18:00																										
ZZZZZZ			18:04																										
ZZZZZZ			18:09																										
ZZZZZZ			18:13																										
ZZZZZZ			18:17																										
ZZZZZZ			18:21																										
CCV 240-272548/62			18:25																										
CCB 240-272548/63			18:30																										
ZZZZZZ			18:34																										
ZZZZZZ			18:38																										
ZZZZZZ			18:42																										
ZZZZZZ			18:46																										
ZZZZZZ			18:50																										
ZZZZZZ			18:54																										
ZZZZZZ			18:59																										
ZZZZZZ			19:03																										
ZZZZZZ			19:07																										
ZZZZZZ			19:11																										
CCV 240-272548/74			19:16																										
CCB 240-272548/75			19:20																										
ZZZZZZ			19:24																										
ZZZZZZ			19:28																										
ZZZZZZ			19:32																										
ZZZZZZ			19:37																										
ZZZZZZ			19:41																										
ZZZZZZ			19:45																										
ZZZZZZ			19:49																										
ZZZZZZ			19:53																										
ZZZZZZ			19:57																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/29/2017 14:08 End Date: 03/29/2017 22:41

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			20:02																										
CCV 240-272548/86			20:06																										
CCB 240-272548/87			20:10																										
ZZZZZZ			20:14																										
ZZZZZZ			20:18																										
ZZZZZZ			20:23																										
ZZZZZZ			20:27																										
CCV 240-272548/92			20:31																										
CCB 240-272548/93			20:35																										
CCVL 240-272548/94			20:39																										
ZZZZZZ			20:44																										
ZZZZZZ			20:48																										
ZZZZZZ			20:52																										
ZZZZZZ			20:56																										
ZZZZZZ			21:00																										
ZZZZZZ			21:05																										
ZZZZZZ			21:09																										
ZZZZZZ			21:13																										
ZZZZZZ			21:17																										
CCV 240-272548/104			21:21																										
CCB 240-272548/105			21:25																										
CCV 240-272548/106			21:30																										
CCB 240-272548/107			21:34																										
ZZZZZZ			21:38																										
ZZZZZZ			21:42																										
ZZZZZZ			21:47																										
ZZZZZZ			21:51																										
ZZZZZZ			21:55																										
ZZZZZZ			21:59																										
CCV 240-272548/114			22:03																										
CCB 240-272548/115			22:08																										
ZZZZZZ			22:12																										
ZZZZZZ			22:16																										
ZZZZZZ			22:20																										
ZZZZZZ			22:24																										
ZZZZZZ			22:29																										
ZZZZZZ			22:33																										
CCV 240-272548/122			22:37																										
CCB 240-272548/123			22:41																										

Prep Types:
R = Total Recoverable

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/30/2017 11:40 End Date: 03/31/2017 00:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			11:40																									
ICIS 240-272731/2			11:44	X																								
STD1 240-272731/3 IC	1		11:48	X																								
STD2 240-272731/4 IC	1		11:53	X																								
STD3 240-272731/5 IC	1		11:57	X																								
STD4 240-272731/6 IC	1		12:01	X																								
ICV 240-272731/7	1		12:05	X																								
ICB 240-272731/8	1		12:09	X																								
ICVL 240-272731/9	1		12:14	X																								
ICSA 240-272731/10	1		12:18	X																								
ICSAB 240-272731/11	1		12:22	X																								
CCV 240-272731/12			12:26																									
CCB 240-272731/13			12:30																									
CCV 240-272731/14			12:45																									
CCB 240-272731/15			12:49																									
ZZZZZZ			12:53																									
ZZZZZZ			12:57																									
ZZZZZZ			13:01																									
ZZZZZZ			13:05																									
ZZZZZZ			13:10																									
ZZZZZZ			13:14																									
ZZZZZZ			13:17																									
ZZZZZZ			13:21																									
ZZZZZZ			13:26																									
ZZZZZZ			13:30																									
CCV 240-272731/26			13:34																									
CCB 240-272731/27			13:38																									
ZZZZZZ			13:42																									
ZZZZZZ			13:46																									
ZZZZZZ			13:50																									
ZZZZZZ			13:54																									
CCV 240-272731/32			13:59																									
CCB 240-272731/33			14:03																									
CCVL 240-272731/34			14:07																									
ZZZZZZ			14:11																									
ZZZZZZ			14:16																									
ZZZZZZ			14:20																									
ZZZZZZ			14:24																									
ZZZZZZ			14:28																									
ZZZZZZ			14:32																									
ZZZZZZ			14:36																									
ZZZZZZ			14:40																									

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/30/2017 11:40 End Date: 03/31/2017 00:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			14:44																									
CCV 240-272731/44	1		14:49	X																								
CCB 240-272731/45	1		14:53	X																								
ZZZZZZ			14:57																									
ZZZZZZ			15:01																									
240-77205-3	1	R	15:05	X																								
240-77205-4	1	R	15:10	X																								
CCV 240-272731/50	1		15:14	X																								
CCB 240-272731/51	1		15:18	X																								
CCVL 240-272731/52	1		15:22	X																								
ZZZZZZ			15:27																									
ZZZZZZ			15:31																									
ZZZZZZ			15:35																									
ZZZZZZ			15:39																									
ZZZZZZ			15:44																									
ZZZZZZ			15:48																									
CCV 240-272731/59			15:52																									
CCB 240-272731/60			15:56																									
CCVL 240-272731/61			16:00																									
ZZZZZZ			16:05																									
ZZZZZZ			16:09																									
ZZZZZZ			16:13																									
ZZZZZZ			16:17																									
ZZZZZZ			16:22																									
ZZZZZZ			16:26																									
ZZZZZZ			16:30																									
CCV 240-272731/69			16:34																									
CCB 240-272731/70			16:38																									
ZZZZZZ			16:42																									
ZZZZZZ			16:47																									
ZZZZZZ			16:51																									
ZZZZZZ			16:55																									
ZZZZZZ			16:59																									
ZZZZZZ			17:03																									
ZZZZZZ			17:07																									
ZZZZZZ			17:12																									
ZZZZZZ			17:16																									
ZZZZZZ			17:20																									
CCV 240-272731/81			17:24																									
CCB 240-272731/82			17:28																									
ZZZZZZ			17:33																									
ZZZZZZ			17:37																									

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/30/2017 11:40 End Date: 03/31/2017 00:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			17:41																									
CCV 240-272731/86			17:45																									
CCB 240-272731/87			17:50																									
CCVL 240-272731/88			17:54																									
ZZZZZZ			17:58																									
ZZZZZZ			18:02																									
ZZZZZZ			18:06																									
ZZZZZZ			18:11																									
ZZZZZZ			18:15																									
ZZZZZZ			18:19																									
ZZZZZZ			18:23																									
ZZZZZZ			18:27																									
ZZZZZZ			18:31																									
CCV 240-272731/98			18:35																									
CCB 240-272731/99			18:40																									
ZZZZZZ			18:44																									
ZZZZZZ			18:48																									
ZZZZZZ			18:52																									
ZZZZZZ			18:57																									
ZZZZZZ			19:01																									
ZZZZZZ			19:05																									
ZZZZZZ			19:09																									
ZZZZZZ			19:14																									
ZZZZZZ			19:18																									
ZZZZZZ			19:22																									
CCV 240-272731/110			19:26																									
CCB 240-272731/111			19:31																									
CCVL 240-272731/112			19:35																									
ZZZZZZ			19:39																									
ZZZZZZ			19:43																									
ZZZZZZ			19:48																									
CCV 240-272731/116			19:52																									
CCB 240-272731/117			19:56																									
ZZZZZZ			20:00																									
ZZZZZZ			20:04																									
ZZZZZZ			20:09																									
ZZZZZZ			20:13																									
ZZZZZZ			20:17																									
ZZZZZZ			20:21																									
ZZZZZZ			20:26																									
ZZZZZZ			20:30																									
CCV 240-272731/126			20:34																									

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/30/2017 11:40 End Date: 03/31/2017 00:04

Lab Sample Id	D/F	Type	Time	Analytes
				Be
CCB 240-272731/127			20:38	
ZZZZZZ			20:43	
ZZZZZZ			20:47	
ZZZZZZ			20:51	
CCV 240-272731/131			20:55	
CCB 240-272731/132			20:59	
ZZZZZZ			21:04	
ZZZZZZ			21:08	
ZZZZZZ			21:12	
ZZZZZZ			21:16	
ZZZZZZ			21:20	
ZZZZZZ			21:24	
ZZZZZZ			21:28	
ZZZZZZ			21:32	
ZZZZZZ			21:37	
ZZZZZZ			21:41	
CCV 240-272731/143			21:45	
CCB 240-272731/144			21:49	
ZZZZZZ			21:53	
ZZZZZZ			21:58	
ZZZZZZ			22:02	
ZZZZZZ			22:06	
ICSA 240-272731/149			22:10	
ICSAB 240-272731/150			22:15	
ZZZZZZ			22:19	
ZZZZZZ			22:23	
ZZZZZZ			22:27	
ZZZZZZ			22:31	
ZZZZZZ			22:35	
ZZZZZZ			22:40	
CCV 240-272731/157			22:44	
CCB 240-272731/158			22:48	
ZZZZZZ			22:52	
ZZZZZZ			22:57	
ZZZZZZ			23:01	
ZZZZZZ			23:05	
ZZZZZZ			23:09	
ZZZZZZ			23:13	
ZZZZZZ			23:17	
ZZZZZZ			23:22	
ZZZZZZ			23:26	
ZZZZZZ			23:30	

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/30/2017 11:40 End Date: 03/31/2017 00:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
CCV 240-272731/169			23:34																									
CCB 240-272731/170			23:39																									
CCV 240-272731/171			23:43																									
CCB 240-272731/172			23:47																									
ZZZZZZ			23:51																									
ZZZZZZ			23:56																									
CCV 240-272731/175			00:00																									
CCB 240-272731/176			00:04																									

Prep Types:
R = Total Recoverable

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 03/29/2017 06:45 End Date: 03/29/2017 17:30

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-272159/1-A			06:45	X																								
IC 240-272159/2-A			06:47	X																								
IC 240-272159/3-A			06:49	X																								
IC 240-272159/4-A			06:51	X																								
IC 240-272159/5-A			06:53	X																								
IC 240-272159/6-A			06:56	X																								
ICV 240-272159/7-A	1		07:02	X																								
ICB 240-272159/8-A	1		07:04	X																								
CRA 240-272159/9-A	1		07:06	X																								
CCV 240-272159/10-A			07:08																									
CCB 240-272159/11-A			07:10																									
CCV 240-272159/10-A			07:12																									
CCB 240-272159/11-A			07:14																									
CCV 240-272159/10-A			08:29																									
CCB 240-272159/11-A			08:31																									
ZZZZZZ			08:34																									
ZZZZZZ			08:36																									
ZZZZZZ			08:37																									
ZZZZZZ			08:39																									
ZZZZZZ			08:42																									
ZZZZZZ			08:44																									
ZZZZZZ			08:46																									
ZZZZZZ			08:49																									
ZZZZZZ			08:51																									
ZZZZZZ			08:52																									
CCV 240-272159/10-A			08:54																									
CCB 240-272159/11-A			08:56																									
ZZZZZZ			08:59																									
ZZZZZZ			09:01																									
ZZZZZZ			09:03																									
ZZZZZZ			09:05																									
ZZZZZZ			09:07																									
ZZZZZZ			09:08																									
ZZZZZZ			09:10																									
ZZZZZZ			09:12																									
ZZZZZZ			09:14																									
ZZZZZZ			09:16																									
CCV 240-272159/10-A			09:18																									
CCB 240-272159/11-A			09:20																									
ZZZZZZ			09:22																									
ZZZZZZ			09:24																									
ZZZZZZ			09:26																									

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 03/29/2017 06:45 End Date: 03/29/2017 17:30

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			09:28																									
ZZZZZZ			09:30																									
ZZZZZZ			09:33																									
ZZZZZZ			09:35																									
ZZZZZZ			09:37																									
ZZZZZZ			09:40																									
ZZZZZZ			09:42																									
CCV 240-272159/10-A			09:44																									
CCB 240-272159/11-A			09:45																									
ZZZZZZ			09:48																									
ZZZZZZ			09:50																									
ZZZZZZ			09:52																									
ZZZZZZ			09:54																									
ZZZZZZ			09:56																									
ZZZZZZ			09:58																									
ZZZZZZ			10:00																									
ZZZZZZ			10:02																									
ZZZZZZ			10:04																									
ZZZZZZ			10:06																									
CCV 240-272159/10-A			10:08																									
CCB 240-272159/11-A			10:11																									
ZZZZZZ			10:13																									
ZZZZZZ			10:15																									
ZZZZZZ			10:17																									
ZZZZZZ			10:19																									
ZZZZZZ			10:21																									
ZZZZZZ			10:23																									
ZZZZZZ			10:25																									
ZZZZZZ			10:27																									
ZZZZZZ			10:30																									
ZZZZZZ			10:32																									
CCV 240-272159/10-A			10:34																									
CCB 240-272159/11-A			10:36																									
ZZZZZZ			10:38																									
ZZZZZZ			10:40																									
ZZZZZZ			10:42																									
ZZZZZZ			10:44																									
CCV 240-272159/10-A			10:46																									
CCB 240-272159/11-A			10:48																									
ZZZZZZ			14:49																									
CCV 240-272159/10-A			14:51																									
CCB 240-272159/11-A			14:53																									

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 03/29/2017 06:45 End Date: 03/29/2017 17:30

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			14:55	
ZZZZZZ			14:57	
ZZZZZZ			14:59	
ZZZZZZ			15:01	
ZZZZZZ			15:03	
CCV 240-272159/10-A			15:06	
CCB 240-272159/11-A			15:08	
ZZZZZZ			15:10	
ZZZZZZ			15:12	
ZZZZZZ			15:14	
ZZZZZZ			15:16	
ZZZZZZ			15:18	
ZZZZZZ			15:20	
ZZZZZZ			15:22	
ZZZZZZ			15:24	
ZZZZZZ			15:26	
ZZZZZZ			15:28	
CCV 240-272159/10-A			15:31	
CCB 240-272159/11-A			15:33	
ZZZZZZ			15:35	
ZZZZZZ			15:37	
ZZZZZZ			15:39	
ZZZZZZ			15:42	
ZZZZZZ			15:43	
ZZZZZZ			15:45	
ZZZZZZ			15:47	
ZZZZZZ			15:49	
ZZZZZZ			15:51	
ZZZZZZ			15:53	
CCV 240-272159/10-A			15:55	
CCB 240-272159/11-A			15:57	
ZZZZZZ			15:59	
ZZZZZZ			16:01	
ZZZZZZ			16:03	
ZZZZZZ			16:05	
ZZZZZZ			16:07	
ZZZZZZ			16:09	
ZZZZZZ			16:12	
ZZZZZZ			16:13	
ZZZZZZ			16:15	
ZZZZZZ			16:17	
CCV 240-272159/10-A	1		16:19	X

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 03/29/2017 06:45 End Date: 03/29/2017 17:30

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-272159/11-A	1		16:21	X																								
ZZZZZZ			16:24																									
ZZZZZZ			16:26																									
ZZZZZZ			16:28																									
MB 240-272192/1-A	1	T	16:30	X																								
LCS 240-272192/2-A	1	T	16:31	X																								
ZZZZZZ			16:33																									
ZZZZZZ			16:36																									
ZZZZZZ			16:38																									
ZZZZZZ			16:40																									
ZZZZZZ			16:42																									
CCV 240-272159/10-A	1		16:44	X																								
CCB 240-272159/11-A	1		16:46	X																								
ZZZZZZ			16:48																									
ZZZZZZ			16:50																									
ZZZZZZ			16:52																									
ZZZZZZ			16:54																									
ZZZZZZ			16:56																									
240-77205-3	1	T	16:58	X																								
240-77205-4	1	T	17:00	X																								
ZZZZZZ			17:02																									
ZZZZZZ			17:04																									
ZZZZZZ			17:06																									
CCV 240-272159/10-A	1		17:08	X																								
CCB 240-272159/11-A	1		17:10	X																								
240-77247-O-5-G MS	1	T	17:13	X																								
240-77247-O-5-H MSD	1	T	17:15	X																								
ZZZZZZ			17:17																									
ZZZZZZ			17:19																									
ZZZZZZ			17:21																									
ZZZZZZ			17:23																									
ZZZZZZ			17:25																									
ZZZZZZ			17:27																									
CCV 240-272159/10-A	1		17:28	X																								
CCB 240-272159/11-A	1		17:30	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/29/2017 End Date: 03/29/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-272545/3 I	10:20	101		102		101		100		99	
STD2 240-272545/4 I	10:24	102		107		106		97		98	
STD3 240-272545/5 I	10:28	105		109		109		100		100	
STD4 240-272545/6 I	10:32	100		107		102		104		104	
ICV 240-272545/7	10:37	104		108		107		101		101	
ICB 240-272545/8	10:41	104		105		104		105		104	
ICVL 240-272545/9	10:45	101		104		103		103		102	
ICSA 240-272545/10	10:49	100		105		105		95		97	
ICSAB 240-272545/11	10:53	98		107		106		100		101	
CCV 240-272545/28	12:13	69		79		77		77		77	
CCB 240-272545/29	12:17	74		79		78		85		85	
MB 240-272184/1-A	12:34	63		70		68		73		72	
LCS 240-272184/3-A	12:38	61		68		66		67		66	
240-77246-M-4-A SD	12:51	58		65		65		67		67	
240-77246-N-4-A MS	12:59	49		58		56		56		56	
CCV 240-272545/40	13:03	55		66		62		66		66	
CCB 240-272545/41	13:07	58		65		63		72		70	
240-77246-N-4-B MSD	13:12	46		59		52		56		57	
240-77205-3	13:16	45		52		50		53		53	
240-77205-4	13:20	42		47		46		50		49	
CCVL 240-272545/45	13:24	44		51		47		55		54	
CCV 240-272545/46	13:28			52				52		52	
CCB 240-272545/47	13:33			50				54		53	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/29/2017 End Date: 03/29/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-272545/3 I	10:20	101		100		99					
STD2 240-272545/4 I	10:24	101		101		95					
STD3 240-272545/5 I	10:28	103		103		96					
STD4 240-272545/6 I	10:32	104		103		100					
ICV 240-272545/7	10:37	102		103		98					
ICB 240-272545/8	10:41	103		102		101					
ICVL 240-272545/9	10:45	102		101		102					
ICSA 240-272545/10	10:49	99		98		96					
ICSAB 240-272545/11	10:53	102		102		100					
CCV 240-272545/28	12:13	84		84		81					
CCB 240-272545/29	12:17	86		87		88					
MB 240-272184/1-A	12:34	78		78		84					
LCS 240-272184/3-A	12:38	75		76		76					
240-77246-M-4-A SD	12:51	72		73		73					
240-77246-N-4-A MS	12:59	65		66		61					
CCV 240-272545/40	13:03	72		72		68					
CCB 240-272545/41	13:07	74		75		75					
240-77246-N-4-B MSD	13:12	65		66		64					
240-77205-3	13:16	60		60		60					
240-77205-4	13:20	55		55		57					
CCVL 240-272545/45	13:24	58		58		59					
CCV 240-272545/46	13:28	57		57		56					
CCB 240-272545/47	13:33	57		57		58					

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/29/2017 End Date: 03/29/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
ICV 240-272548/7	14:34	104		107		107		100		102	
ICB 240-272548/8	14:38	106		107		108		106		108	
ICVL 240-272548/9	14:42	103		104		105		103		105	
ICSA 240-272548/10	14:46	104		110		109		98		103	
ICSAB 240-272548/11	14:51	100		107		106		98		102	
CCV 240-272548/14	15:05	103		106		107		98		99	
CCB 240-272548/15	15:09	106		105		108		106		107	
240-77247-O-5-D MS	15:42	60		63		67		57		58	
240-77247-O-5-E MSD	15:46	64		74		72		64		66	
CCV 240-272548/26	15:55	57		61		60		58		58	
CCB 240-272548/27	15:59	57		56		59		59		57	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/29/2017 End Date: 03/29/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
ICV 240-272548/7	14:34	102		103		99					
ICB 240-272548/8	14:38	106		105		104					
ICVL 240-272548/9	14:42	103		102		101					
ICSA 240-272548/10	14:46	102		103		100					
ICSAB 240-272548/11	14:51	103		103		100					
CCV 240-272548/14	15:05	103		104		97					
CCB 240-272548/15	15:09	107		107		105					
240-77247-O-5-D MS	15:42	66		67		59					
240-77247-O-5-E MSD	15:46	74		74		66					
CCV 240-272548/26	15:55	63		63		60					
CCB 240-272548/27	15:59	61		61		60					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/30/2017 End Date: 03/30/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-272731/3 I	11:48	100		99		101		97		99	
STD2 240-272731/4 I	11:53	98		102		99		93		96	
STD3 240-272731/5 I	11:57	98		101		100		92		95	
STD4 240-272731/6 I	12:01	96		102		96		100		99	
ICV 240-272731/7	12:05	99		104		101		96		98	
ICB 240-272731/8	12:09	103		101		103		102		103	
ICVL 240-272731/9	12:14	102		106		102		102		103	
ICSA 240-272731/10	12:18	89		93		90		84		89	
ICSAB 240-272731/11	12:22	83		87		86		82		85	
CCV 240-272731/44	14:49	71		77		79		78		78	
CCB 240-272731/45	14:53	72		73		78		80		78	
240-77205-3	15:05	65		75		80		78		76	
240-77205-4	15:10	63		70		76		75		73	
CCV 240-272731/50	15:14	71		75		78		74		75	
CCB 240-272731/51	15:18	73		73		79		79		79	
CCVL 240-272731/52	15:22	71		73		77		77		78	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77205-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/30/2017 End Date: 03/30/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-272731/3 I	11:48	99		99		99					
STD2 240-272731/4 I	11:53	98		99		93					
STD3 240-272731/5 I	11:57	97		99		92					
STD4 240-272731/6 I	12:01	99		100		97					
ICV 240-272731/7	12:05	100		100		97					
ICB 240-272731/8	12:09	101		103		101					
ICVL 240-272731/9	12:14	103		104		103					
ICSA 240-272731/10	12:18	91		92		91					
ICSAB 240-272731/11	12:22	89		89		87					
CCV 240-272731/44	14:49	82		83		78					
CCB 240-272731/45	14:53	81		82		82					
240-77205-3	15:05	82		83		82					
240-77205-4	15:10	79		80		83					
CCV 240-272731/50	15:14	81		81		77					
CCB 240-272731/51	15:18	80		81		82					
CCVL 240-272731/52	15:22	79		80		80					

VOA Calibration Calculations:

Initial Calibration 3/29/2017
Instrument A3UX11

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
1	104033	829331	10	1.2544	1.2544
2	188332	820690	10	1.1474	1.1474
5	494386	837600	10	1.1805	1.1805
10	993388	838554	10	1.1846	1.1846
20	2048384	863001	10	1.1868	1.1868
40	4247251	887257	10	1.1967	1.1967
			Average	1.1917	1.1917
			Standard Deviation	0.0350	
			RSD	0.0294	
			%RSD	2.9360	2.9

Internal standard for benzene is fluorobenzene

Continuing Calibration 03/30/2017@ 10:13
Instrument A3UX11

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
10	997657	892078	10	1.1184	-6.3638536	1.118	-6.2

MRC Groundwater
SDG 240-77205-1

SAMPLE IDENTIFICATION	MRC-MW37B-032317	
COMPOUND	Trichloroethene	
COMPOUND AREA	786654	
INTERNAL STANDARD AMOUNT (ng)	10	
DILUTION FACTOR	1	
INTERNAL STANDARD AREA	881024	
AVERAGE RRF	0.298	
VOLUME OF SAMPLE	5	
VOLUME OF EXTRACT	5.00	
CONCENTRATION =	29.96	ug/L

SVOA Calibration Calculations:

Initial Calibration 3/8/2017
Instrument CHZ

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.01	2773	226947	0.5	0.61094	0.6109
0.02	6218	251612	0.5	0.61782	0.6178
0.05	14480	218926	0.5	0.66141	0.6614
0.1	27995	224595	0.5	0.62323	0.6232
0.2	48146	200782	0.5	0.59948	0.5995
0.4	110705	227238	0.5	0.60897	0.609
0.8	242998	233784	0.5	0.64963	0.6496
			Average	0.62450	0.6245
			Standard Deviation	0.0227	
			RSD	0.0363	
			%RSD	3.63475	3.6

Continuing Calibration 03/29/2017 @ 17:20
Instrument CHZ

Phenol

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
0.1	30797	228305	0.5	0.6745	8.0016901	0.6745	8

MRC Groundwater
SDG 240-77205-1

SAMPLE IDENTIFICATION	MRC-MW73B-032317
COMPOUND	1,4-Dioxane
COMPOUND AREA	4703
INTERNAL STANDARD AMOUNT (ng)	0.5
DILUTION FACTOR	1
INTERNAL STANDARD AREA	239374
AVERAGE RRF	0.6245
VOLUME OF SAMPLE	0.1
VOLUME OF EXTRACT	2
CONCENTRATION =	0.3146 ug/L

PCB Calibration Calculations:

Initial Calibration 3/1/2017
Instrument CMSX

Monochlorobiphenyl

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.1	3151	28080	0.75	0.8416	0.8416
0.5	13342	26238	0.75	0.7627	0.7627
1	26104	26916	0.75	0.7274	0.7274
2	56643	27928	0.75	0.7606	0.7606
5	163189	28486	0.75	0.8593	0.8593
			Average	0.7903	0.7903
			Standard Deviation	0.0570	
			RSD	0.0721	
			%RSD	7.2129	7.2

Continuing Calibration 03/31/2017@ 12:02
Instrument CMSX

Monochlorobiphenyl

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
1	31306	30203	0.75	0.7774	-1.5776157	0.7774	-1.6

MRC Groundwater
SDG 240-77205-1

SAMPLE IDENTIFICATION	LCS 680-473802/7-A	
COMPOUND	Monochlorobiphenyl	
COMPOUND AREA	45130	
INTERNAL STANDARD AMOUNT (ng)	0.75	
DILUTION FACTOR	1	
INTERNAL STANDARD AREA	25170	
AVERAGE RRF	0.7903	
VOLUME OF SAMPLE	1	
VOLUME OF EXTRACT	1.00	
CONCENTRATION =	1.70	ug/L

Sample Report

Sample Table

Sample Name	240-77205-c-3-a
Data File Name	043SMPL.d
Data Path Name	D:\Analytical Runs\I10032917B.b
Acq Date Time	2017-03-29T13:16:08-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

Sample MRC-MW73A-032317.
Arsenic 1.1 ug/L reported

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	45	2	NoGas	-0.147	-0.147	-140.71	226580	0.00	10000	
Be	9	45	2	NoGas	0.307	0.307	6.55	1370	0.02	2000	
B	11	45	2	NoGas	70.042	70.042	0.89	253961	0.03	300	
Na	23	45	1	He	33317.261	33317.261	1.46	19056096	0.17	500000	
Mg	24	45	1	He	11062.307	11062.307	1.41	3318081	0.33	500000	
Al	27	45	1	He	1434.232	1434.232	1.02	188445	0.76	200000	
K	39	45	1	He	2390.748	2390.748	2.15	538766	0.44	500000	
Ca	44	45	1	He	35901.110	35901.110	1.66	415765	8.63	500000	
Ti	47	45	1	He	66.887	66.887	7.50	4545	1.47	2500	
V	51	45	1	He	5.745	5.745	2.83	11193	0.05	10000	
Cr	52	45	1	He	3.718	3.718	1.31	9151	0.04	10000	
Mn	55	45	1	He	10.821	10.821	1.01	18582	0.06	10000	
Fe	56	45	1	He	3347.055	3347.055	2.57	6674765	0.05	200000	
Co	59	45	1	He	1.632	1.632	4.97	5612	0.03	5000	
Ni	60	45	1	He	4.541	4.541	3.88	4069	0.11	10000	
Cu	63	45	1	He	2.798	2.798	3.89	6847	0.04	10000	
Zn	66	45	1	He	12.657	12.657	2.63	6343	0.20	10000	
As	75	115	1	He	1.130	1.130	4.84	372	0.30	10000	
Se	78	115	1	He	2.994	2.994	4.46	94	3.20	10000	
Sr	88	103	1	He	101.453	101.453	1.05	216343	0.05	10000	
Mo	95	103	1	He	0.942	0.942	11.61	1378	0.07	2000	
Ag	107	103	1	He	0.018	0.018	50.35	116	0.02	300	
Cd	111	115	1	He	0.240	0.240	37.44	186	0.13	4000	
Sn	118	159	1	He	9.559	9.559	29.28	16953	0.06	2000	
Sb	123	159	1	He	2.395	2.395	9.85	3947	0.06	200	
Ba	137	115	1	He	37.091	37.091	3.13	26688	0.14	10000	
W	182	159	1	He	4.004	4.004	32.98	23028	0.02	2500	
Tl	205	165	1	He	0.169	0.169	25.32	2706	0.01	2000	
Pb	208	165	1	He	1.320	1.320	5.40	25292	0.01	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	3953868	1.07	8753089	45.17	60	120	ISTD warning
Sc	45	1	He	477713	2.85	922856	51.76	60	120	ISTD warning
Sc	45	2	NoGas	6402350	1.53	12745508	50.23	60	120	ISTD warning
Rh	103	1	He	1909373	0.90	3572481	53.45	60	120	ISTD warning
In	115	1	He	953918	1.48	1815306	52.55	60	120	ISTD warning
Tb	159	1	He	3626017	1.19	6078921	59.65	60	120	
Ho	165	1	He	3724277	0.33	6166951	60.39	60	120	
Bi	209	1	He	2855588	1.45	4797124	59.53	60	120	

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **MAY 23, 2017**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs, 1,4-DIOXANE, PCBs, SELECT METALS**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC) GROUNDWATER
SDG 240-77337-1

SAMPLES:

4/Aqueous
VOCs/ 1,4-Dioxane/ PCBs
MRC-MW37C-032717 MRC-SEMW-7I-032717 MRC-SEMW-8I-032717
MRC-SEMW-8S-032717

3/Aqueous
Select Metals
MRC-SEMW-7I-032717 MRC-SEMW-8I-032717 MRC-SEMW-8S-032717

1/Trip Blank
TB-032717

Overview

The sample set for LMC-MRC Groundwater, SDG 240-77337-1 consisted of four (4) aqueous environmental samples and one (1) trip blank. All samples were analyzed for volatile organic carbons (VOCs). Samples MRC-MW37C-032717, MRC-SEMW-7I-032717, MRC-SEMW-8I-032717 and MRC-SEMW-8S-032717 were also analyzed for 1,4-Dioxane and polychlorinated biphenyls (PCBs). Samples MRC-SEMW-7I-032717, MRC-SEMW-8I-032717 and MRC-SEMW-8S-032717 were also analyzed for select metals. No field duplicate sample pairs were included in this SDG.

The samples were collected by Tetra Tech, Inc. on March 27, 2017 and analyzed by TestAmerica-Canton, TestAmerica-Burlington and TestAmerica-Savannah. All analyses were conducted in accordance with SW-846 Methods 8260C, 6020A and 7470A and EPA methods 522 and 680 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/preparation/trip blank results, Interference Check Sample (ICS) recoveries, surrogate spike recoveries, laboratory control sample / laboratory control sample duplicate results, matrix spike / matrix spike duplicate recoveries, ICP serial dilution results, internal standard areas and recoveries, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The VOC initial calibration verification performed on instrument A3UX11 on 03/29/17 @ 15:09 had a percent difference (%D) for acetone which exceeded the quality control limit. Sample TB-032717 was affected. The non-detected result reported for acetone in the affected sample was qualified as estimated, (UJ).

- The VOC continuing calibration performed on instrument A3UX11 on 03/31/17 @ 10:13 had percent

differences (%Ds) for bromomethane, 2-butanone, 2-hexanone and bromoform which exceeded the quality control limits. Sample TB-032717 was affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

- The VOC continuing calibration performed on instrument A3UX9 on 04/04/17 @ 21:45 had %Ds for dichlorodifluoromethane and 2-butanone which exceeded the quality control limits. Samples MRC-MW37C-032717, MRC-SEMW-7I-032717, MRC-SEMW-8I-032717 and MRC-SEMW-8S-032717 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

- The following analytes were detected in the laboratory instrument/method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Reporting Limit (RL) > or <
Antimony(1)	0.834 ug/L	< RL
Beryllium(1)	0.0570 ug/L	< RL
Cobalt(1)	0.0560 ug/L	< RL
Molybdenium(1)	0.696 ug/L	< RL
Selenium(1)	0.314 ug/L	< RL
Thallium(1)	0.0840 ug/L	< RL
Copper(2)	0.639 ug/L	< RL
Lead(2)	0.169 ug/L	< RL

(1) Maximum concentration present in an instrument blank.
(2) Maximum concentration present in a method blank.

The detected results reported below the reporting limit (RL) for molybdenum, selenium, copper and lead were qualified as non-detected, (U).

- The internal standard recoveries for Lithium-6, Scandium-45, Indium-115 were below the quality control limit for samples MRC-SEMW-7I-032717 and MRC-SEMW-8I-032717. The detected and non-detected results reported for arsenic, barium, beryllium, cadmium, chromium, cobalt, nickel, selenium and vanadium were qualified as estimated (J) and (UJ) respectively.

- The internal standard recoveries for Lithium-6, Scandium-45, Rhodium-103 and Indium-115 were below the quality control limit for sample MRC-SEMW-8S-032717. The detected and non-detected results reported for arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, molybdenum, nickel, selenium, silver, vanadium and zinc were qualified as estimated (J) and (UJ) respectively.

- Detected results reported below the RL but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Samples MRC-SEMW-7I-032717, MRC-SEMW-8S-032717 and MRC-SEMW-8I-032717 were analyzed at a dilution for the VOC analyses. The detection limits of the non-detected results were elevated.

The PCB surrogate decachlorobiphenyl-13C12 was above the quality control limit for sample MRC-MW37C-032717. No validation actions were warranted as all sample results were nondetects.

The matrix spike (MS) and/or matrix spike duplicate (MSD) percent recoveries for all PCBs except monochlorobiphenyls for sample MRC-MW37C-032717 were above the quality control limit. No validation actions were warranted based on MS/MSD recoveries alone.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Several CCV %Ds were noncompliant for the VOC fraction. Contaminants were detected in the laboratory preparation/method/field blanks. Several internal standard recoveries were noncompliant in the metals fraction.

Other Factors Affecting Data Quality: Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and the "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-MW37C-032717			MRC-SEMW-7I-032717			MRC-SEMW-8I-032717			MRC-SEMW-8S-032717		
SDG: 240-77337-1	LAB_ID	240-77337-1			240-77337-2			240-77337-4			240-77337-3		
FRACTION: OV	SAMP_DATE	3/27/2017			3/27/2017			3/27/2017			3/27/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		230	U		23	U		460	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		320	U		32	U		640	U	
1,1,2-TRICHLOROETHANE		0.34	U		340	U		34	U		680	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		410	U		41	U		820	U	
1,1-DICHLOROETHANE		0.25	U		250	U		25	U		500	U	
1,1-DICHLOROETHENE		0.27	U		270	U		27	U		540	U	
1,2,3-TRICHLOROBENZENE					350	U		35	U		700	U	
1,2,4-TRICHLOROBENZENE		0.27	U		270	U		27	U		540	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		470	U		47	U		940	U	
1,2-DIBROMOETHANE		0.23	U		230	U		23	U		460	U	
1,2-DICHLOROBENZENE		0.26	U		260	U		26	U		520	U	
1,2-DICHLOROETHANE		0.3	U		300	U		30	U		600	U	
1,2-DICHLOROPROPANE		0.3	U		300	U		30	U		600	U	
1,3,5-TRICHLOROBENZENE					330	U		33	U		660	U	
1,3-DICHLOROBENZENE		0.32	U		320	U		32	U		640	U	
1,4-DICHLOROBENZENE		0.23	U		230	U		23	U		460	U	
2-BUTANONE		1	UJ	C	1000	UJ	C	100	UJ	C	2000	UJ	C
2-HEXANONE		1.2	U		1200	U		120	U		2500	U	
4-METHYL-2-PENTANONE		0.71	U		710	U		71	U		1400	U	
ACETONE		1.8	U		1800	U		180	U		3500	U	
BENZENE		0.28	U		280	U		28	U		560	U	
BROMODICHLOROMETHANE		0.3	U		300	U		30	U		600	U	
BROMOFORM		0.43	U		430	U		43	U		860	U	
BROMOMETHANE		0.42	U		420	U		42	U		840	U	
CARBON DISULFIDE		0.34	U		340	U		34	U		680	U	
CARBON TETRACHLORIDE		0.35	U		350	U		35	U		700	U	
CHLOROBENZENE		0.32	U		320	U		32	U		640	U	
CHLORODIBROMOMETHANE		0.25	U		250	U		25	U		500	U	
CHLOROETHANE		0.41	U		410	U		41	U		820	U	
CHLOROFORM		0.31	U		310	U		31	U		620	U	
CHLOROMETHANE		0.43	U		430	U		43	U		860	U	
CIS-1,2-DICHLOROETHENE		0.3	U		300	U		110			600	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		260	U		26	U		520	U	
CYCLOHEXANE		0.44	U		440	U		44	U		880	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	500	UJ	C	50	UJ	C	1000	UJ	C

PROJ_NO: 07776	NSAMPLE	TB-032717		
SDG: 240-77337-1	LAB_ID	240-77337-5		
FRACTION: OV	SAMP_DATE	3/27/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U	
1,1-DICHLOROETHANE		0.25	U	
1,1-DICHLOROETHENE		0.27	U	
1,2,3-TRICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U	
1,2-DIBROMOETHANE		0.23	U	
1,2-DICHLOROBENZENE		0.26	U	
1,2-DICHLOROETHANE		0.3	U	
1,2-DICHLOROPROPANE		0.3	U	
1,3,5-TRICHLOROBENZENE				
1,3-DICHLOROBENZENE		0.32	U	
1,4-DICHLOROBENZENE		0.23	U	
2-BUTANONE		1	UJ	C
2-HEXANONE		1.2	UJ	C
4-METHYL-2-PENTANONE		0.71	U	
ACETONE		1.8	UJ	C
BENZENE		0.28	U	
BROMODICHLOROMETHANE		0.3	U	
BROMOFORM		0.43	UJ	C
BROMOMETHANE		0.42	UJ	C
CARBON DISULFIDE		0.34	U	
CARBON TETRACHLORIDE		0.35	U	
CHLOROBENZENE		0.32	U	
CHLORODIBROMOMETHANE		0.25	U	
CHLOROETHANE		0.41	U	
CHLOROFORM		0.31	U	
CHLOROMETHANE		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U	
CYCLOHEXANE		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW37C-032717			MRC-SEMW-7I-032717			MRC-SEMW-8I-032717			MRC-SEMW-8S-032717		
SDG: 240-77337-1	LAB_ID	240-77337-1			240-77337-2			240-77337-4			240-77337-3		
FRACTION: OV	SAMP_DATE	3/27/2017			3/27/2017			3/27/2017			3/27/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.26	U		260	U		26	U		520	U	
ISOPROPYLBENZENE		0.21	U		210	U		21	U		420	U	
METHYL ACETATE		1.4	U		1400	U		140	U		2900	U	
METHYL CYCLOHEXANE		0.45	U		450	U		45	U		900	U	
METHYL TERT-BUTYL ETHER		0.27	U		270	U		27	U		540	U	
METHYLENE CHLORIDE		0.53	U		530	U		53	U		1100	U	
STYRENE		0.23	U		230	U		23	U		460	U	
TETRACHLOROETHENE		0.3	U		300	U		30	U		600	U	
TOLUENE		0.23	U		230	U		23	U		460	U	
TOTAL XYLENES		0.24	U		240	U		24	U		480	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		290	U		29	U		580	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		310	U		31	U		620	U	
TRICHLOROETHENE		0.33	U		26000			3600			61000		
TRICHLOROFLUOROMETHANE		0.5	U		500	U		50	U		1000	U	
VINYL CHLORIDE		0.45	U		450	U		45	U		900	U	

PROJ_NO: 07776	NSAMPLE	TB-032717		
SDG: 240-77337-1	LAB_ID	240-77337-5		
FRACTION: OV	SAMP_DATE	3/27/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ETHYLBENZENE		0.26	U	
ISOPROPYLBENZENE		0.21	U	
METHYL ACETATE		1.4	U	
METHYL CYCLOHEXANE		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U	
METHYLENE CHLORIDE		0.53	U	
STYRENE		0.23	U	
TETRACHLOROETHENE		0.3	U	
TOLUENE		0.23	U	
TOTAL XYLENES		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U	
TRICHLOROETHENE		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U	
VINYL CHLORIDE		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW37C-032717			MRC-SEMW-7I-032717			MRC-SEMW-8I-032717			MRC-SEMW-8S-032717		
SDG: 240-77337-1	LAB_ID	240-77337-1			240-77337-2			240-77337-4			240-77337-3		
FRACTION: OS	SAMP_DATE	3/27/2017			3/27/2017			3/27/2017			3/27/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.057	U		0.24			0.4			0.19	J	P

PROJ_NO: 07776	NSAMPLE	MRC-MW37C-032717			MRC-SEMW-7I-032717			MRC-SEMW-8I-032717			MRC-SEMW-8S-032717		
SDG: 240-77337-1	LAB_ID	240-77337-1			240-77337-2			240-77337-4			240-77337-3		
FRACTION: PCB	SAMP_DATE	3/27/2017			3/27/2017			3/27/2017			3/27/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		0.14	U		0.072	U		0.073	U		0.067	U	
DICHLOROBIPHENYLS		0.011	U		0.0055	U		0.0057	U		0.0052	U	
HEPTACHLOROBIPHENYLS		0.06	U		0.031	U		0.031	U		0.029	U	
HEXACHLOROBIPHENYLS		0.03	U		0.015	U		0.016	U		0.014	U	
MONOCHLOROBIPHENYLS		0.011	U		0.0058	U		0.0059	U		0.0054	U	
NONACHLOROBIPHENYLS		0.098	U		0.05	U		0.051	U		0.047	U	
OCTACHLOROBIPHENYLS		0.076	U		0.039	U		0.04	U		0.036	U	
PENTACHLOROBIPHENYLS		0.028	U		0.014	U		0.015	U		0.013	U	
TETRACHLOROBIPHENYLS		0.026	U		0.013	U		0.014	U		0.012	U	
TRICHLOROBIPHENYLS		0.013	U		0.0067	U		0.0068	U		0.0062	U	

PROJ_NO: 07776	NSAMPLE	MRC-SEMW-7I-032717			MRC-SEMW-8I-032717			MRC-SEMW-8S-032717		
SDG: 240-77337-1	LAB_ID	240-77337-2			240-77337-4			240-77337-3		
FRACTION: M	SAMP_DATE	3/27/2017			3/27/2017			3/27/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.27	U		0.27	U		0.27	U	
ARSENIC		0.35	UJ	N	0.38	J	NP	5.8	J	N
BARIUM		70	J	N	120	J	N	49	J	N
BERYLLIUM		4	J	N	0.4	UJ	N	15	J	N
CADMIUM		0.31	UJ	N	0.31	UJ	N	0.56	J	NP
CHROMIUM		0.58	J	NP	0.52	J	NP	1.4	J	NP
COBALT		45	J	N	6.8	J	N	210	J	N
COPPER		13			0.49	U	A	25	J	N
LEAD		0.25	U	A	0.19	U	A	0.26	U	A
MERCURY		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		0.51	U		2.4	U	A	0.51	UJ	N
NICKEL		75	J	N	1.9	J	NP	320	J	N
SELENIUM		0.53	U	A	0.48	UJ	N	22	J	N
SILVER		0.03	U		0.03	U		0.03	UJ	N
THALLIUM		0.28	U		0.28	U		0.28	U	
VANADIUM		0.54	UJ	N	0.54	UJ	N	0.54	UJ	N
ZINC		99			6.2	U		420	J	N

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-MW37C-032717 | Lab Sample ID: 240-77337-1

Matrix: Water | Lab File ID: UX962884.D

Analysis Method: 8260C | Date Collected: 03/27/2017 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 01:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273301 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-MW37C-032717 | Lab Sample ID: 240-77337-1

Matrix: Water | Lab File ID: UX962884.D

Analysis Method: 8260C | Date Collected: 03/27/2017 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 01:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273301 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-7I-032717 | Lab Sample ID: 240-77337-2

Matrix: Water | Lab File ID: UX962885.D

Analysis Method: 8260C | Date Collected: 03/27/2017 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 01:42

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273301 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	230	U	1000	230
79-34-5	1,1,2,2-Tetrachloroethane	320	U	1000	320
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	410	U	1000	410
79-00-5	1,1,2-Trichloroethane	340	U	1000	340
75-34-3	1,1-Dichloroethane	250	U	1000	250
75-35-4	1,1-Dichloroethene	270	U	1000	270
120-82-1	1,2,4-Trichlorobenzene	270	U	1000	270
96-12-8	1,2-Dibromo-3-Chloropropane	470	U	2000	470
106-93-4	Ethylene Dibromide	230	U	1000	230
95-50-1	1,2-Dichlorobenzene	260	U	1000	260
107-06-2	1,2-Dichloroethane	300	U	1000	300
78-87-5	1,2-Dichloropropane	300	U	1000	300
541-73-1	1,3-Dichlorobenzene	320	U	1000	320
106-46-7	1,4-Dichlorobenzene	230	U	1000	230
78-93-3	2-Butanone (MEK)	1000	U	10000	1000
591-78-6	2-Hexanone	1200	U	10000	1200
108-10-1	4-Methyl-2-pentanone (MIBK)	710	U	10000	710
67-64-1	Acetone	1800	U	10000	1800
71-43-2	Benzene	280	U	1000	280
75-27-4	Dichlorobromomethane	300	U	1000	300
75-25-2	Bromoform	430	U	1000	430
74-83-9	Bromomethane	420	U	1000	420
75-15-0	Carbon disulfide	340	U	1000	340
56-23-5	Carbon tetrachloride	350	U	1000	350
108-90-7	Chlorobenzene	320	U	1000	320
75-00-3	Chloroethane	410	U	1000	410
67-66-3	Chloroform	310	U	1000	310
74-87-3	Chloromethane	430	U	1000	430
156-59-2	cis-1,2-Dichloroethene	300	U	1000	300
10061-01-5	cis-1,3-Dichloropropene	260	U	1000	260
110-82-7	Cyclohexane	440	U	1000	440
124-48-1	Chlorodibromomethane	250	U	1000	250
75-71-8	Dichlorodifluoromethane	500	U	1000	500
100-41-4	Ethylbenzene	260	U	1000	260
98-82-8	Isopropylbenzene	210	U	1000	210

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-7I-032717 | Lab Sample ID: 240-77337-2

Matrix: Water | Lab File ID: UX962885.D

Analysis Method: 8260C | Date Collected: 03/27/2017 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 01:42

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273301 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1400	U	10000	1400
1634-04-4	Methyl tert-butyl ether	270	U	1000	270
108-87-2	Methylcyclohexane	450	U	1000	450
75-09-2	Methylene Chloride	530	U	1000	530
100-42-5	Styrene	230	U	1000	230
127-18-4	Tetrachloroethene	300	U	1000	300
108-88-3	Toluene	230	U	1000	230
156-60-5	trans-1,2-Dichloroethene	290	U	1000	290
10061-02-6	trans-1,3-Dichloropropene	310	U	1000	310
79-01-6	Trichloroethene	26000		1000	330
75-69-4	Trichlorofluoromethane	500	U	1000	500
75-01-4	Vinyl chloride	450	U	1000	450
1330-20-7	Xylenes, Total	240	U	2000	240
87-61-6	1,2,3-Trichlorobenzene	350	U	1000	350
108-70-3	1,3,5-Trichlorobenzene	330	U	1000	330

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-8S-032717 | Lab Sample ID: 240-77337-3

Matrix: Water | Lab File ID: UX962886.D

Analysis Method: 8260C | Date Collected: 03/27/2017 13:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 02:06

Soil Aliquot Vol: | Dilution Factor: 2000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273301 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	460	U	2000	460
79-34-5	1,1,2,2-Tetrachloroethane	640	U	2000	640
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	820	U	2000	820
79-00-5	1,1,2-Trichloroethane	680	U	2000	680
75-34-3	1,1-Dichloroethane	500	U	2000	500
75-35-4	1,1-Dichloroethene	540	U	2000	540
120-82-1	1,2,4-Trichlorobenzene	540	U	2000	540
96-12-8	1,2-Dibromo-3-Chloropropane	940	U	4000	940
106-93-4	Ethylene Dibromide	460	U	2000	460
95-50-1	1,2-Dichlorobenzene	520	U	2000	520
107-06-2	1,2-Dichloroethane	600	U	2000	600
78-87-5	1,2-Dichloropropane	600	U	2000	600
541-73-1	1,3-Dichlorobenzene	640	U	2000	640
106-46-7	1,4-Dichlorobenzene	460	U	2000	460
78-93-3	2-Butanone (MEK)	2000	U	20000	2000
591-78-6	2-Hexanone	2500	U	20000	2500
108-10-1	4-Methyl-2-pentanone (MIBK)	1400	U	20000	1400
67-64-1	Acetone	3500	U	20000	3500
71-43-2	Benzene	560	U	2000	560
75-27-4	Dichlorobromomethane	600	U	2000	600
75-25-2	Bromoform	860	U	2000	860
74-83-9	Bromomethane	840	U	2000	840
75-15-0	Carbon disulfide	680	U	2000	680
56-23-5	Carbon tetrachloride	700	U	2000	700
108-90-7	Chlorobenzene	640	U	2000	640
75-00-3	Chloroethane	820	U	2000	820
67-66-3	Chloroform	620	U	2000	620
74-87-3	Chloromethane	860	U	2000	860
156-59-2	cis-1,2-Dichloroethene	600	U	2000	600
10061-01-5	cis-1,3-Dichloropropene	520	U	2000	520
110-82-7	Cyclohexane	880	U	2000	880
124-48-1	Chlorodibromomethane	500	U	2000	500
75-71-8	Dichlorodifluoromethane	1000	U	2000	1000
100-41-4	Ethylbenzene	520	U	2000	520
98-82-8	Isopropylbenzene	420	U	2000	420

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-8S-032717 | Lab Sample ID: 240-77337-3

Matrix: Water | Lab File ID: UX962886.D

Analysis Method: 8260C | Date Collected: 03/27/2017 13:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 02:06

Soil Aliquot Vol: | Dilution Factor: 2000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273301 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	2900	U	20000	2900
1634-04-4	Methyl tert-butyl ether	540	U	2000	540
108-87-2	Methylcyclohexane	900	U	2000	900
75-09-2	Methylene Chloride	1100	U	2000	1100
100-42-5	Styrene	460	U	2000	460
127-18-4	Tetrachloroethene	600	U	2000	600
108-88-3	Toluene	460	U	2000	460
156-60-5	trans-1,2-Dichloroethene	580	U	2000	580
10061-02-6	trans-1,3-Dichloropropene	620	U	2000	620
79-01-6	Trichloroethene	61000		2000	660
75-69-4	Trichlorofluoromethane	1000	U	2000	1000
75-01-4	Vinyl chloride	900	U	2000	900
1330-20-7	Xylenes, Total	480	U	4000	480
87-61-6	1,2,3-Trichlorobenzene	700	U	2000	700
108-70-3	1,3,5-Trichlorobenzene	660	U	2000	660

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	89		73-124
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	89		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-8I-032717 | Lab Sample ID: 240-77337-4

Matrix: Water | Lab File ID: UX962887.D

Analysis Method: 8260C | Date Collected: 03/27/2017 14:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 02:30

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273301 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	23	U	100	23
79-34-5	1,1,2,2-Tetrachloroethane	32	U	100	32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	41	U	100	41
79-00-5	1,1,2-Trichloroethane	34	U	100	34
75-34-3	1,1-Dichloroethane	25	U	100	25
75-35-4	1,1-Dichloroethene	27	U	100	27
120-82-1	1,2,4-Trichlorobenzene	27	U	100	27
96-12-8	1,2-Dibromo-3-Chloropropane	47	U	200	47
106-93-4	Ethylene Dibromide	23	U	100	23
95-50-1	1,2-Dichlorobenzene	26	U	100	26
107-06-2	1,2-Dichloroethane	30	U	100	30
78-87-5	1,2-Dichloropropane	30	U	100	30
541-73-1	1,3-Dichlorobenzene	32	U	100	32
106-46-7	1,4-Dichlorobenzene	23	U	100	23
78-93-3	2-Butanone (MEK)	100	U	1000	100
591-78-6	2-Hexanone	120	U	1000	120
108-10-1	4-Methyl-2-pentanone (MIBK)	71	U	1000	71
67-64-1	Acetone	180	U	1000	180
71-43-2	Benzene	28	U	100	28
75-27-4	Dichlorobromomethane	30	U	100	30
75-25-2	Bromoform	43	U	100	43
74-83-9	Bromomethane	42	U	100	42
75-15-0	Carbon disulfide	34	U	100	34
56-23-5	Carbon tetrachloride	35	U	100	35
108-90-7	Chlorobenzene	32	U	100	32
75-00-3	Chloroethane	41	U	100	41
67-66-3	Chloroform	31	U	100	31
74-87-3	Chloromethane	43	U	100	43
156-59-2	cis-1,2-Dichloroethene	110		100	30
10061-01-5	cis-1,3-Dichloropropene	26	U	100	26
110-82-7	Cyclohexane	44	U	100	44
124-48-1	Chlorodibromomethane	25	U	100	25
75-71-8	Dichlorodifluoromethane	50	U	100	50
100-41-4	Ethylbenzene	26	U	100	26
98-82-8	Isopropylbenzene	21	U	100	21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-8I-032717 | Lab Sample ID: 240-77337-4

Matrix: Water | Lab File ID: UX962887.D

Analysis Method: 8260C | Date Collected: 03/27/2017 14:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 02:30

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273301 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	140	U	1000	140
1634-04-4	Methyl tert-butyl ether	27	U	100	27
108-87-2	Methylcyclohexane	45	U	100	45
75-09-2	Methylene Chloride	53	U	100	53
100-42-5	Styrene	23	U	100	23
127-18-4	Tetrachloroethene	30	U	100	30
108-88-3	Toluene	23	U	100	23
156-60-5	trans-1,2-Dichloroethene	29	U	100	29
10061-02-6	trans-1,3-Dichloropropene	31	U	100	31
79-01-6	Trichloroethene	3600		100	33
75-69-4	Trichlorofluoromethane	50	U	100	50
75-01-4	Vinyl chloride	45	U	100	45
1330-20-7	Xylenes, Total	24	U	200	24
87-61-6	1,2,3-Trichlorobenzene	35	U	100	35
108-70-3	1,3,5-Trichlorobenzene	33	U	100	33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: TB-032717 | Lab Sample ID: 240-77337-5

Matrix: Water | Lab File ID: UXJ1142.D

Analysis Method: 8260C | Date Collected: 03/27/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 18:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: TB-032717 | Lab Sample ID: 240-77337-5

Matrix: Water | Lab File ID: UXJ1142.D

Analysis Method: 8260C | Date Collected: 03/27/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 18:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-MW37C-032717 | Lab Sample ID: 240-77337-1

Matrix: Water | Lab File ID: Z24541_10.D

Analysis Method: 522 | Date Collected: 03/27/2017 10:50

Extract. Method: 3535A | Date Extracted: 03/30/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/03/2017 10:35

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115381 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	91		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-7I-032717 | Lab Sample ID: 240-77337-2

Matrix: Water | Lab File ID: Z24541_11.D

Analysis Method: 522 | Date Collected: 03/27/2017 12:00

Extract. Method: 3535A | Date Extracted: 03/30/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/03/2017 10:52

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115381 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.24		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	91		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-8S-032717 | Lab Sample ID: 240-77337-3

Matrix: Water | Lab File ID: Z24541_13.D

Analysis Method: 522 | Date Collected: 03/27/2017 13:15

Extract. Method: 3535A | Date Extracted: 03/30/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/03/2017 11:26

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115381 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.19	J	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	84		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-8I-032717 | Lab Sample ID: 240-77337-4

Matrix: Water | Lab File ID: Z24541_14.D

Analysis Method: 522 | Date Collected: 03/27/2017 14:25

Extract. Method: 3535A | Date Extracted: 03/30/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/03/2017 11:43

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115381 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.40		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	89		46-130

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-MW37C-032717 | Lab Sample ID: 240-77337-1

Matrix: Water | Lab File ID: xd1416.D

Analysis Method: 680 | Date Collected: 03/27/2017 10:50

Extract. Method: 680 | Date Extracted: 04/07/2017 14:58

Sample wt/vol: 500.3(mL) | Date Analyzed: 04/14/2017 15:27

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 476005 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.060	U F1	0.60	0.060
26601-64-9	Hexachlorobiphenyl	0.030	U F1	0.40	0.030
53742-07-7	Nonachlorobiphenyl	0.098	U F1	1.0	0.098
55722-26-4	Octachlorobiphenyl	0.076	U F1	0.60	0.076
27323-18-8	Monochlorobiphenyl	0.011	U	0.20	0.011
2051-24-3	DCB Decachlorobiphenyl	0.14	U F1	1.0	0.14
25512-42-9	Dichlorobiphenyl	0.011	U F1	0.20	0.011
25429-29-2	Pentachlorobiphenyl	0.028	U F1	0.40	0.028
26914-33-0	Tetrachlorobiphenyl	0.026	U F1	0.40	0.026
25323-68-6	Trichlorobiphenyl	0.013	U F1	0.20	0.013

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	145	X	25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-7I-032717 | Lab Sample ID: 240-77337-2

Matrix: Water | Lab File ID: xd1417.D

Analysis Method: 680 | Date Collected: 03/27/2017 12:00

Extract. Method: 680 | Date Extracted: 04/07/2017 14:58

Sample wt/vol: 973.9(mL) | Date Analyzed: 04/14/2017 15:56

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 476005 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.031	U	0.31	0.031
26601-64-9	Hexachlorobiphenyl	0.015	U	0.21	0.015
53742-07-7	Nonachlorobiphenyl	0.050	U	0.51	0.050
55722-26-4	Octachlorobiphenyl	0.039	U	0.31	0.039
27323-18-8	Monochlorobiphenyl	0.0058	U	0.10	0.0058
2051-24-3	DCB Decachlorobiphenyl	0.072	U	0.51	0.072
25512-42-9	Dichlorobiphenyl	0.0055	U	0.10	0.0055
25429-29-2	Pentachlorobiphenyl	0.014	U	0.21	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.21	0.013
25323-68-6	Trichlorobiphenyl	0.0067	U	0.10	0.0067

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	82		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-8S-032717 | Lab Sample ID: 240-77337-3

Matrix: Water | Lab File ID: xd1418.D

Analysis Method: 680 | Date Collected: 03/27/2017 13:15

Extract. Method: 680 | Date Extracted: 04/07/2017 14:58

Sample wt/vol: 1044.7(mL) | Date Analyzed: 04/14/2017 16:25

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 476005 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.036	U	0.29	0.036
27323-18-8	Monochlorobiphenyl	0.0054	U	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.012	U	0.19	0.012
25323-68-6	Trichlorobiphenyl	0.0062	U	0.096	0.0062

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	68		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77337-1

SDG No.:

Client Sample ID: MRC-SEMW-8I-032717 | Lab Sample ID: 240-77337-4

Matrix: Water | Lab File ID: xd1419.D

Analysis Method: 680 | Date Collected: 03/27/2017 14:25

Extract. Method: 680 | Date Extracted: 04/07/2017 14:58

Sample wt/vol: 955(mL) | Date Analyzed: 04/14/2017 16:53

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 476005 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.031	U	0.31	0.031
26601-64-9	Hexachlorobiphenyl	0.016	U	0.21	0.016
53742-07-7	Nonachlorobiphenyl	0.051	U	0.52	0.051
55722-26-4	Octachlorobiphenyl	0.040	U	0.31	0.040
27323-18-8	Monochlorobiphenyl	0.0059	U	0.10	0.0059
2051-24-3	DCB Decachlorobiphenyl	0.073	U	0.52	0.073
25512-42-9	Dichlorobiphenyl	0.0057	U	0.10	0.0057
25429-29-2	Pentachlorobiphenyl	0.015	U	0.21	0.015
26914-33-0	Tetrachlorobiphenyl	0.014	U	0.21	0.014
25323-68-6	Trichlorobiphenyl	0.0068	U	0.10	0.0068

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	78		25-113

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-SEMW-7I-032717 Lab Sample ID: 240-77337-2

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG ID.:

Matrix: Water Date Sampled: 03/27/2017 12:00

Reporting Basis: WET Date Received: 03/28/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-SEMW-7I-032717 Lab Sample ID: 240-77337-2

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG ID.:

Matrix: Water Date Sampled: 03/27/2017 12:00

Reporting Basis: WET Date Received: 03/28/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.27	ug/L	U		1	6020A
7440-38-2	Arsenic	0.35	5.0	0.35	ug/L	U		1	6020A
7440-39-3	Barium	70	5.0	0.52	ug/L			1	6020A
7440-41-7	Beryllium	4.0	1.0	0.40	ug/L			1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	45	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.58	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	13	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	75	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.25	1.0	0.16	ug/L	J	B	1	6020A
7782-49-2	Selenium	0.53	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	99	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-SEMW-8S-032717 Lab Sample ID: 240-77337-3

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG ID.:

Matrix: Water Date Sampled: 03/27/2017 13:15

Reporting Basis: WET Date Received: 03/28/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-SEMW-8S-032717 Lab Sample ID: 240-77337-3

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG ID.:

Matrix: Water Date Sampled: 03/27/2017 13:15

Reporting Basis: WET Date Received: 03/28/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.27	ug/L	U		1	6020A
7440-38-2	Arsenic	5.8	5.0	0.35	ug/L			1	6020A
7440-39-3	Barium	49	5.0	0.52	ug/L			1	6020A
7440-41-7	Beryllium	15	1.0	0.40	ug/L			1	6020A
7440-43-9	Cadmium	0.56	1.0	0.31	ug/L	J		1	6020A
7440-48-4	Cobalt	210	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	1.4	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	25	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	320	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.26	1.0	0.16	ug/L	J	B	1	6020A
7782-49-2	Selenium	22	5.0	0.48	ug/L			1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	420	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-SEMW-8I-032717 Lab Sample ID: 240-77337-4

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG ID.:

Matrix: Water Date Sampled: 03/27/2017 14:25

Reporting Basis: WET Date Received: 03/28/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-SEMW-8I-032717 Lab Sample ID: 240-77337-4

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG ID.:

Matrix: Water Date Sampled: 03/27/2017 14:25

Reporting Basis: WET Date Received: 03/28/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.27	ug/L	U		1	6020A
7440-38-2	Arsenic	0.38	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	120	5.0	0.52	ug/L			1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	6.8	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.52	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.49	2.0	0.36	ug/L	J	B	1	6020A
7439-98-7	Molybdenum	2.4	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	1.9	2.0	0.28	ug/L	J		1	6020A
7439-92-1	Lead	0.19	1.0	0.16	ug/L	J	B	1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	6.2	20	6.2	ug/L	U		1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

Appendix C

Support Documentation

180325

BALT

2.2|1.9

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Michael Martin	Site Contact: Stu Cameron	Date: 3/27/2017	COC No:
Tetra Tech	Tel/Fax: 410-707-5259 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			112IC07776-13
(301) 528-3002 Phone	TAT if different from Below: 21 DAYS			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MRC Ground Water Sampling	☐ 1 week			
Site: Middle River Complex, Maryland	☐ 2 days			Sampler: S. Cameron
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs (8260C)	1,4-Dioxane	Total Metals	PCB Homologs	Chlorinated Benzenes	Sample Specific Notes:
MRC-MW37C-032717	3/27/2017	1050	GW	Water	7	N	x	x		x		
MRC-SEMW-7I-032717	3/27/2017	1200	GW	Water	8	N	x	x	x	x	x	
MRC-SEMW-8S-032717	3/27/2017	1315	GW	Water	8	N	x	x	x	x	x	
MRC-SEMW-8I-032717	3/27/2017	1425	GW	Water	8	N	x	x	x	x	x	
TB-032717	3/27/2017	--	--	Water	2	N	x					

240-77337 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

2	2	4	1	2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: Use sample from VOC vials for Chlorinated Benzene analysis.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	3-27-17/1500	Dalice Carter	TestAm	3-27-17 15-30
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Dalice Carter	TA	3-27-17 15			1705
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			Heather Myers	TA	3/28/17 930

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-77337-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 522 1,4-Dioxane analysis was performed at the TestAmerica Burlington Laboratory. The 680 Polychlorinated Biphenyls analysis was performed at the TestAmerica Savannah Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 3/28/2017 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9º C.

1,4-DIOXANE

Samples MRC-MW37C-032717 (240-77337-1), MRC-SEMW-7I-032717 (240-77337-2), MRC-SEMW-8S-032717 (240-77337-3) and MRC-SEMW-8I-032717 (240-77337-4) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 03/30/2017 and analyzed on 04/03/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MRC-MW37C-032717 (240-77337-1), MRC-SEMW-7I-032717 (240-77337-2), MRC-SEMW-8S-032717 (240-77337-3), MRC-SEMW-8I-032717 (240-77337-4) and TB-032717 (240-77337-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/31/2017 and 04/05/2017.

Samples MRC-SEMW-7I-032717 (240-77337-2)[1000X], MRC-SEMW-8S-032717 (240-77337-3)[2000X] and MRC-SEMW-8I-032717 (240-77337-4)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 272768 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required: TB-032717 (240-77337-5).

The continuing calibration verification (CCV) analyzed in batch 240-273301 was outside the method criteria for the following analytes: Dichlorodi fluoromethane and 2-Butanone. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples MRC-MW37C-032717 (240-77337-1), MRC-SEMW-7I-032717 (240-77337-2), MRC-SEMW-8S-032717 (240-77337-3) and MRC-SEMW-8I-032717 (240-77337-4) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 04/07/2017 and analyzed on 04/14/2017.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 680-475231 and analytical batch 680-476005 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Surrogate recovery for Decachlorobiphenyl-13C12 for the following sample was outside the upper control limit: MRC-MW37C-032717 (240-77337-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)

Samples MRC-SEMW-7I-032717 (240-77337-2), MRC-SEMW-8S-032717 (240-77337-3) and MRC-SEMW-8I-032717 (240-77337-4) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 03/29/2017 and analyzed on 03/30/2017.

Copper, Iron and Lead were detected in method blank MB 240-272377/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY

Samples MRC-SEMW-7I-032717 (240-77337-2), MRC-SEMW-8S-032717 (240-77337-3) and MRC-SEMW-8I-032717 (240-77337-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 03/29/2017 and analyzed on 03/30/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-77337-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
680	Polychlorinated Biphenyls (PCBs) (GC/MS)	EPA	TAL SAV
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-77337-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-77337-1	MRC-MW37C-032717	Water	03/27/17 10:50	03/28/17 09:30
240-77337-2	MRC-SEMW-7I-032717	Water	03/27/17 12:00	03/28/17 09:30
240-77337-3	MRC-SEMW-8S-032717	Water	03/27/17 13:15	03/28/17 09:30
240-77337-4	MRC-SEMW-8I-032717	Water	03/27/17 14:25	03/28/17 09:30
240-77337-5	TB-032717	Water	03/27/17 00:00	03/28/17 09:30

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MRC-MW37C-032717	240-77337-1	100	96	90	94
MRC-SEMW-7I-032717	240-77337-2	101	96	93	92
MRC-SEMW-8S-032717	240-77337-3	98	94	89	89
MRC-SEMW-8I-032717	240-77337-4	99	96	93	92
TB-032717	240-77337-5	97	93	99	97
	MB 240-272768/6	97	93	99	100
	MB 240-273301/7	103	92	90	93
	LCS 240-272768/4	99	99	98	98
	LCS 240-273301/5	98	95	95	102
	200-37906-B-3 MS	99	98	99	99
	240-77450-A-4 MS	100	90	92	104
	200-37906-B-3 MSD	106	105	103	103
	240-77450-A-4 MSD	98	94	92	101

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1121.D

Lab ID: LCS 240-272768/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.89	99	79-133	
1,1,2,2-Tetrachloroethane	10.0	9.54	95	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	8.44	84	65-151	
1,1,2-Trichloroethane	10.0	10.1	101	80-120	
1,1-Dichloroethane	10.0	9.75	97	77-121	
1,1-Dichloroethene	10.0	10.0	100	70-141	
1,2,4-Trichlorobenzene	10.0	9.32	93	53-137	
1,2-Dibromo-3-Chloropropane	10.0	8.74	87	46-140	
Ethylene Dibromide	10.0	9.60	96	80-126	
1,2-Dichlorobenzene	10.0	9.72	97	80-120	
1,2-Dichloroethane	10.0	9.96	100	76-130	
1,2-Dichloropropane	10.0	9.96	100	79-121	
1,3-Dichlorobenzene	10.0	9.82	98	80-120	
1,4-Dichlorobenzene	10.0	9.76	98	80-120	
2-Butanone (MEK)	20.0	15.9	80	54-122	
2-Hexanone	20.0	15.8	79	56-124	
4-Methyl-2-pentanone (MIBK)	20.0	18.4	92	60-131	
Acetone	20.0	11.8	59	46-120	
Benzene	10.0	9.75	97	80-120	
Dichlorobromomethane	10.0	9.62	96	76-125	
Bromoform	10.0	6.16	62	52-157	
Bromomethane	10.0	7.11	71	24-160	
Carbon disulfide	10.0	9.88	99	58-160	
Carbon tetrachloride	10.0	9.65	97	69-149	
Chlorobenzene	10.0	9.78	98	80-120	
Chloroethane	10.0	7.86	79	24-147	
Chloroform	10.0	9.93	99	80-120	
Chloromethane	10.0	7.96	80	50-135	
cis-1,2-Dichloroethene	10.0	10.1	101	80-120	
cis-1,3-Dichloropropene	10.0	9.28	93	75-120	
Cyclohexane	10.0	9.57	96	66-135	
Chlorodibromomethane	10.0	8.55	85	68-131	
Dichlorodifluoromethane	10.0	8.23	82	32-140	
Ethylbenzene	10.0	9.74	97	80-120	
Isopropylbenzene	10.0	9.79	98	80-120	
Methyl acetate	20.0	18.4	92	65-124	
Methyl tert-butyl ether	10.0	10.1	101	75-126	
Methylcyclohexane	10.0	9.02	90	71-122	
Methylene Chloride	10.0	10.5	105	68-136	
Styrene	10.0	9.77	98	80-120	
Tetrachloroethene	10.0	10.0	100	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1121.D

Lab ID: LCS 240-272768/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	10.0	9.88	99	80-121	
trans-1,2-Dichloroethene	10.0	9.76	98	80-123	
trans-1,3-Dichloropropene	10.0	8.51	85	65-120	
Trichloroethene	10.0	10.3	103	80-122	
Trichlorofluoromethane	10.0	8.80	88	56-161	
Vinyl chloride	10.0	8.43	84	60-129	
Xylenes, Total	20.0	19.6	98	80-120	
m-Xylene & p-Xylene	10.0	9.72	97	80-120	
o-Xylene	10.0	9.85	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962877.D

Lab ID: LCS 240-273301/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.2	101	79-133	
1,1,2,2-Tetrachloroethane	20.0	19.1	96	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.2	106	65-151	
1,1,2-Trichloroethane	20.0	20.1	101	80-120	
1,1-Dichloroethane	20.0	19.6	98	77-121	
1,1-Dichloroethene	20.0	21.5	108	70-141	
1,2,4-Trichlorobenzene	20.0	15.2	76	53-137	
1,2-Dibromo-3-Chloropropane	20.0	16.2	81	46-140	
Ethylene Dibromide	20.0	19.2	96	80-126	
1,2-Dichlorobenzene	20.0	18.2	91	80-120	
1,2-Dichloroethane	20.0	18.6	93	76-130	
1,2-Dichloropropane	20.0	21.4	107	79-121	
1,3-Dichlorobenzene	20.0	18.5	93	80-120	
1,4-Dichlorobenzene	20.0	18.5	92	80-120	
2-Butanone (MEK)	40.0	40.3	101	54-122	
2-Hexanone	40.0	40.7	102	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	42.9	107	60-131	
Acetone	40.0	26.8	67	46-120	
Benzene	20.0	21.6	108	80-120	
Dichlorobromomethane	20.0	19.3	97	76-125	
Bromoform	20.0	17.6	88	52-157	
Bromomethane	20.0	22.8	114	24-160	
Carbon disulfide	20.0	15.8	79	58-160	
Carbon tetrachloride	20.0	17.3	86	69-149	
Chlorobenzene	20.0	18.7	94	80-120	
Chloroethane	20.0	24.6	123	24-147	
Chloroform	20.0	21.3	107	80-120	
Chloromethane	20.0	20.6	103	50-135	
cis-1,2-Dichloroethene	20.0	20.4	102	80-120	
cis-1,3-Dichloropropene	20.0	21.6	108	75-120	
Cyclohexane	20.0	21.7	109	66-135	
Chlorodibromomethane	20.0	16.8	84	68-131	
Dichlorodifluoromethane	20.0	21.5	107	32-140	
Ethylbenzene	20.0	19.7	99	80-120	
Isopropylbenzene	20.0	19.6	98	80-120	
Methyl acetate	40.0	38.3	96	65-124	
Methyl tert-butyl ether	20.0	19.3	97	75-126	
Methylcyclohexane	20.0	20.4	102	71-122	
Methylene Chloride	20.0	20.5	102	68-136	
Styrene	20.0	19.5	97	80-120	
Tetrachloroethene	20.0	19.6	98	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962877.D

Lab ID: LCS 240-273301/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	19.3	96	80-121	
trans-1,2-Dichloroethene	20.0	21.7	109	80-123	
trans-1,3-Dichloropropene	20.0	15.5	78	65-120	
Trichloroethene	20.0	20.0	100	80-122	
Trichlorofluoromethane	20.0	22.2	111	56-161	
Vinyl chloride	20.0	21.1	106	60-129	
Xylenes, Total	40.0	38.6	97	80-120	
m-Xylene & p-Xylene	20.0	19.4	97	80-120	
o-Xylene	20.0	19.2	96	80-120	
1,2,3-Trichlorobenzene	20.0	14.1	70	53-135	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Sample not included in this SDG.

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1145.D

Lab ID: 200-37906-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	33.3	0.77 U	31.1	93	55-150	
1,1,2,2-Tetrachloroethane	33.3	1.1 U	29.6	89	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	33.3	1.4 U	21.7	65	41-149	
1,1,2-Trichloroethane	33.3	1.1 U	32.9	99	65-130	
1,1-Dichloroethane	33.3	0.83 U	30.9	93	57-135	
1,1-Dichloroethene	33.3	0.90 U	31.5	94	50-156	
1,2,4-Trichlorobenzene	33.3	0.90 U	28.3	85	35-140	
1,2-Dibromo-3-Chloropropane	33.3	1.6 U	26.6	80	37-139	
Ethylene Dibromide	33.3	0.77 U	30.3	91	64-137	
1,2-Dichlorobenzene	33.3	0.87 U	30.8	92	62-123	
1,2-Dichloroethane	33.3	1.0 U	31.5	95	62-137	
1,2-Dichloropropane	33.3	1.0 U	31.2	94	66-130	
1,3-Dichlorobenzene	33.3	1.1 U	30.6	92	59-122	
1,4-Dichlorobenzene	33.3	0.77 U	30.4	91	60-122	
2-Butanone (MEK)	66.6	3.4 U	47.0	71	38-123	
2-Hexanone	66.6	4.1 U	48.0	72	41-135	
4-Methyl-2-pentanone (MIBK)	66.6	2.4 U	55.4	83	43-143	
Acetone	66.6	5.9 U	38.9	58	28-120	
Benzene	33.3	0.93 U	30.8	93	67-126	
Dichlorobromomethane	33.3	1.0 U	29.3	88	64-127	
Bromoform	33.3	1.4 U	19.3	58	40-149	
Bromomethane	33.3	1.4 U	24.9	75	10-169	
Carbon disulfide	33.3	1.1 U	29.8	89	43-172	
Carbon tetrachloride	33.3	1.2 U	29.3	88	51-154	
Chlorobenzene	33.3	1.1 U	30.5	92	58-128	
Chloroethane	33.3	1.4 U	26.1	78	10-162	
Chloroform	33.3	1.0 U	31.9	96	67-133	
Chloromethane	33.3	1.4 U	27.0	81	30-143	
cis-1,2-Dichloroethene	33.3	66	101	104	64-134	
cis-1,3-Dichloropropene	33.3	0.87 U	28.4	85	58-120	
Chlorodibromomethane	33.3	0.83 U	26.0	78	56-132	
Dichlorodifluoromethane	33.3	1.7 U	24.0	72	16-140	
Ethylbenzene	33.3	0.87 U	30.2	91	66-123	
Isopropylbenzene	33.3	0.70 U	29.8	89	57-132	
Methyl tert-butyl ether	33.3	0.90 U	32.6	98	50-137	
Methylene Chloride	33.3	1.8 U	31.8	96	48-138	
Styrene	33.3	0.77 U	30.2	91	62-131	
Tetrachloroethene	33.3	15	44.1	89	54-138	
Toluene	33.3	0.77 U	30.6	92	63-130	
trans-1,2-Dichloroethene	33.3	3.4	31.1	83	70-137	
trans-1,3-Dichloropropene	33.3	1.0 U	25.3	76	48-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1145.D

Lab ID: 200-37906-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Trichloroethene	33.3	7.9	39.0	94	58-139	
Trichlorofluoromethane	33.3	1.7 U	28.8	86	26-175	
Vinyl chloride	33.3	1.5 U	28.0	84	38-147	
Xylenes, Total	66.6	0.80 U	60.6	91	60-126	
m-Xylene & p-Xylene	33.3	0.80 U	29.7	89	58-127	
o-Xylene	33.3	0.93 U	30.9	93	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Sample not included in this SDG.

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1146.D

Lab ID: 200-37906-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	33.3	33.1	99	6	35	55-150	
1,1,2,2-Tetrachloroethane	33.3	31.8	95	7	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	33.3	26.9	81	21	35	41-149	
1,1,2-Trichloroethane	33.3	34.5	104	5	35	65-130	
1,1-Dichloroethane	33.3	33.2	100	7	35	57-135	
1,1-Dichloroethene	33.3	31.9	96	2	35	50-156	
1,2,4-Trichlorobenzene	33.3	29.4	88	4	35	35-140	
1,2-Dibromo-3-Chloropropane	33.3	28.5	86	7	35	37-139	
Ethylene Dibromide	33.3	32.2	97	6	35	64-137	
1,2-Dichlorobenzene	33.3	33.5	101	9	35	62-123	
1,2-Dichloroethane	33.3	34.0	102	7	35	62-137	
1,2-Dichloropropane	33.3	33.9	102	8	35	66-130	
1,3-Dichlorobenzene	33.3	32.0	96	4	35	59-122	
1,4-Dichlorobenzene	33.3	32.6	98	7	35	60-122	
2-Butanone (MEK)	66.6	51.4	77	9	35	38-123	
2-Hexanone	66.6	50.7	76	5	35	41-135	
4-Methyl-2-pentanone (MIBK)	66.6	58.4	88	5	35	43-143	
Acetone	66.6	43.6	65	11	35	28-120	
Benzene	33.3	33.6	101	9	31	67-126	
Dichlorobromomethane	33.3	32.7	98	11	35	64-127	
Bromoform	33.3	20.4	61	5	35	40-149	
Bromomethane	33.3	27.3	82	9	35	10-169	
Carbon disulfide	33.3	30.8	92	3	35	43-172	
Carbon tetrachloride	33.3	31.9	96	8	35	51-154	
Chlorobenzene	33.3	32.9	99	7	35	58-128	
Chloroethane	33.3	28.3	85	8	35	10-162	
Chloroform	33.3	34.0	102	6	35	67-133	
Chloromethane	33.3	26.8	81	1	35	30-143	
cis-1,2-Dichloroethene	33.3	105	116	4	35	64-134	
cis-1,3-Dichloropropene	33.3	30.9	93	8	35	58-120	
Chlorodibromomethane	33.3	28.5	86	9	35	56-132	
Dichlorodifluoromethane	33.3	25.3	76	5	35	16-140	
Ethylbenzene	33.3	32.9	99	9	34	66-123	
Isopropylbenzene	33.3	32.0	96	7	35	57-132	
Methyl tert-butyl ether	33.3	35.1	105	7	35	50-137	
Methylene Chloride	33.3	34.1	102	7	35	48-138	
Styrene	33.3	32.0	96	6	35	62-131	
Tetrachloroethene	33.3	46.7	97	6	35	54-138	
Toluene	33.3	32.7	98	7	33	63-130	
trans-1,2-Dichloroethene	33.3	33.5	90	7	25	70-137	
trans-1,3-Dichloropropene	33.3	28.0	84	10	35	48-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1146.D

Lab ID: 200-37906-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Trichloroethene	33.3	41.6	101	6	35	58-139	
Trichlorofluoromethane	33.3	29.6	89	3	35	26-175	
Vinyl chloride	33.3	28.9	87	3	35	38-147	
Xylenes, Total	66.6	64.5	97	6	35	60-126	
m-Xylene & p-Xylene	33.3	32.0	96	7	35	58-127	
o-Xylene	33.3	32.5	98	5	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Sample not included in this SDG.

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962899.D

Lab ID: 240-77450-A-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	2000	23 U	1810	91	55-150	
1,1,2,2-Tetrachloroethane	2000	32 U	1840	92	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	2000	41 U	1660	83	41-149	
1,1,2-Trichloroethane	2000	34 U	1920	96	65-130	
1,1-Dichloroethane	2000	25 U	1920	96	57-135	
1,1-Dichloroethene	2000	27 U	1950	97	50-156	
1,2,4-Trichlorobenzene	2000	27 U	1420	71	35-140	
1,2-Dibromo-3-Chloropropane	2000	47 U	1570	79	37-139	
Ethylene Dibromide	2000	23 U	1860	93	64-137	
1,2-Dichlorobenzene	2000	26 U	1740	87	62-123	
1,2-Dichloroethane	2000	30 U	1840	92	62-137	
1,2-Dichloropropane	2000	30 U	2020	101	66-130	
1,3-Dichlorobenzene	2000	32 U	1710	86	59-122	
1,4-Dichlorobenzene	2000	23 U	1700	85	60-122	
2-Butanone (MEK)	4000	5500	9920	111	38-123	
2-Hexanone	4000	120 U	4830	121	41-135	
4-Methyl-2-pentanone (MIBK)	4000	450 J	4500	101	43-143	
Acetone	4000	6500	9560	78	28-120	
Benzene	2000	28 U	2040	102	67-126	
Dichlorobromomethane	2000	30 U	1800	90	64-127	
Bromoform	2000	43 U	1770	88	40-149	
Bromomethane	2000	42 U	2100	105	10-169	
Carbon disulfide	2000	34 U	1430	71	43-172	
Carbon tetrachloride	2000	35 U	1600	80	51-154	
Chlorobenzene	2000	32 U	1750	87	58-128	
Chloroethane	2000	41 U	2310	115	10-162	
Chloroform	2000	31 U	2100	105	67-133	
Chloromethane	2000	43 U	2030	101	30-143	
cis-1,2-Dichloroethene	2000	30 U	1970	99	64-134	
cis-1,3-Dichloropropene	2000	26 U	1940	97	58-120	
Cyclohexane	2000	44 U	1630	81	36-144	
Chlorodibromomethane	2000	25 U	1580	79	56-132	
Dichlorodifluoromethane	2000	50 U	1680	84	16-140	
Ethylbenzene	2000	27 J	1760	87	66-123	
Isopropylbenzene	2000	21 U	1740	87	57-132	
Methyl acetate	4000	140 U	4050	101	46-135	
Methyl tert-butyl ether	2000	27 U	1890	95	50-137	
Methylcyclohexane	2000	45 U	1590	79	31-139	
Methylene Chloride	2000	53 U	1990	100	48-138	
Styrene	2000	23 U	1870	94	62-131	
Tetrachloroethene	2000	30 U	1730	87	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962899.D

Lab ID: 240-77450-A-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	2000	76 J	1900	91	63-130	
trans-1,2-Dichloroethene	2000	29 U	2020	101	70-137	
trans-1,3-Dichloropropene	2000	31 U	1470	74	48-120	
Trichloroethene	2000	33 U	1840	92	58-139	
Trichlorofluoromethane	2000	50 U	1860	93	26-175	
Vinyl chloride	2000	45 U	2000	100	38-147	
Xylenes, Total	4000	48 J	3560	88	60-126	
m-Xylene & p-Xylene	2000	48 J	1790	87	58-127	
o-Xylene	2000	28 U	1770	88	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Sample not included in this SDG.

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962900.D

Lab ID: 240-77450-A-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	2000	1820	91	1	35	55-150	
1,1,2,2-Tetrachloroethane	2000	1920	96	4	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	2000	1710	85	3	35	41-149	
1,1,2-Trichloroethane	2000	1850	93	3	35	65-130	
1,1-Dichloroethane	2000	1900	95	1	35	57-135	
1,1-Dichloroethene	2000	2040	102	4	35	50-156	
1,2,4-Trichlorobenzene	2000	1580	79	11	35	35-140	
1,2-Dibromo-3-Chloropropane	2000	1660	83	5	35	37-139	
Ethylene Dibromide	2000	1720	86	8	35	64-137	
1,2-Dichlorobenzene	2000	1770	89	2	35	62-123	
1,2-Dichloroethane	2000	1860	93	1	35	62-137	
1,2-Dichloropropane	2000	2010	101	0	35	66-130	
1,3-Dichlorobenzene	2000	1770	88	3	35	59-122	
1,4-Dichlorobenzene	2000	1790	89	5	35	60-122	
2-Butanone (MEK)	4000	10100	115	2	35	38-123	
2-Hexanone	4000	4790	120	1	35	41-135	
4-Methyl-2-pentanone (MIBK)	4000	4780	108	6	35	43-143	
Acetone	4000	9880	86	3	35	28-120	
Benzene	2000	2060	103	1	31	67-126	
Dichlorobromomethane	2000	1920	96	6	35	64-127	
Bromoform	2000	1750	87	1	35	40-149	
Bromomethane	2000	2120	106	1	35	10-169	
Carbon disulfide	2000	1550	78	8	35	43-172	
Carbon tetrachloride	2000	1700	85	6	35	51-154	
Chlorobenzene	2000	1740	87	1	35	58-128	
Chloroethane	2000	2290	115	1	35	10-162	
Chloroform	2000	2040	102	3	35	67-133	
Chloromethane	2000	1990	99	2	35	30-143	
cis-1,2-Dichloroethene	2000	1960	98	1	35	64-134	
cis-1,3-Dichloropropene	2000	1970	98	1	35	58-120	
Cyclohexane	2000	1670	84	3	35	36-144	
Chlorodibromomethane	2000	1560	78	2	35	56-132	
Dichlorodifluoromethane	2000	1710	86	2	35	16-140	
Ethylbenzene	2000	1780	88	1	34	66-123	
Isopropylbenzene	2000	1730	87	0	35	57-132	
Methyl acetate	4000	4110	103	2	34	46-135	
Methyl tert-butyl ether	2000	1900	95	0	35	50-137	
Methylcyclohexane	2000	1650	83	4	35	31-139	
Methylene Chloride	2000	1990	99	0	35	48-138	
Styrene	2000	1780	89	5	35	62-131	
Tetrachloroethene	2000	1630	81	6	35	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962900.D

Lab ID: 240-77450-A-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	2000	1830	88	4	33	63-130	
trans-1,2-Dichloroethene	2000	2050	102	1	25	70-137	
trans-1,3-Dichloropropene	2000	1520	76	3	35	48-120	
Trichloroethene	2000	1830	92	0	35	58-139	
Trichlorofluoromethane	2000	1870	93	0	35	26-175	
Vinyl chloride	2000	2020	101	1	35	38-147	
Xylenes, Total	4000	3510	87	1	35	60-126	
m-Xylene & p-Xylene	2000	1770	86	1	35	58-127	
o-Xylene	2000	1740	87	1	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab File ID: UXJ1124.D Lab Sample ID: MB 240-272768/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX11 Date Analyzed: 03/31/2017 11:44

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-272768/4	UXJ1121.D	03/31/2017 10:35
TB-032717	240-77337-5	UXJ1142.D	03/31/2017 18:33
	200-37906-B-3 MS	UXJ1145.D	03/31/2017 19:41
	200-37906-B-3 MSD	UXJ1146.D	03/31/2017 20:04

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272768/6

Matrix: Water | Lab File ID: UXJ1124.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272768/6

Matrix: Water | Lab File ID: UXJ1124.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab File ID: UX962879.D Lab Sample ID: MB 240-273301/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/04/2017 23:19

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-273301/5	UX962877.D	04/04/2017 22:31
MRC-MW37C-032717	240-77337-1	UX962884.D	04/05/2017 01:19
MRC-SEMW-7I-032717	240-77337-2	UX962885.D	04/05/2017 01:42
MRC-SEMW-8S-032717	240-77337-3	UX962886.D	04/05/2017 02:06
MRC-SEMW-8I-032717	240-77337-4	UX962887.D	04/05/2017 02:30
	240-77450-A-4 MS	UX962899.D	04/05/2017 07:17
	240-77450-A-4 MSD	UX962900.D	04/05/2017 07:41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-273301/7

Matrix: Water | Lab File ID: UX962879.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/04/2017 23:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273301 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77337-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-273301/7

Matrix: Water | Lab File ID: UX962879.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/04/2017 23:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273301 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-132

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab File ID: BFB70329.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX11 BFB Injection Time: 09:21

Analysis Batch No.: 272388

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	43.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	97.7	
175	5.0 - 9.0 % of mass 174	6.7	(6.9) 1
176	95.0 - 101.0 % of mass 174	95.7	(97.9) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272388/2	UXJ1042.D	03/29/2017	09:53
	STD8260 240-272388/3	UXJ1043.D	03/29/2017	10:15
	STD8260 240-272388/4	UXJ1044.D	03/29/2017	10:38
	STD8260 240-272388/5	UXJ1045.D	03/29/2017	11:01
	STD8260 240-272388/6	UXJ1046.D	03/29/2017	11:24
	STD8260 240-272388/7	UXJ1047.D	03/29/2017	11:46
	ICV 240-272388/15	UXJ1055.D	03/29/2017	14:47
	ICV 240-272388/14	UXJ1056.D	03/29/2017	15:09

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272388/7	UXJ1047.D
Level 2	STD8260 240-272388/6	UXJ1046.D
Level 3	STD8260 240-272388/5	UXJ1045.D
Level 4	STD8260 240-272388/4	UXJ1044.D
Level 5	STD8260 240-272388/3	UXJ1043.D
Level 6	STD8260 240-272388/2	UXJ1042.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1603 0.1921	0.1584	0.1613	0.1577	0.2044	Ave		0.1724			0.1000	11.9		20.0			
Chloromethane	0.2491 0.2109	0.2162	0.2162	0.2125	0.2167	Ave		0.2203			0.1000	6.5		20.0			
Vinyl chloride	0.2103 0.2025	0.2093	0.2060	0.2048	0.2103	Ave		0.2072			0.1000	1.6		20.0			
Butadiene	0.2056 0.1636	0.2480	0.1949	0.1967	0.1922	Ave		0.2001				13.7		20.0			
Bromomethane	0.1553 0.0933	0.1256	0.1058	0.0931	0.0957	Lin1	0.0644	0.0913			0.0500				0.9990		0.9900
Chloroethane	0.0971 0.1004	0.0998	0.1019	0.1022	0.1044	Ave		0.1010			0.0500	2.5		20.0			
Dichlorofluoromethane	0.3749 0.2550	0.3438	0.2709	0.2723	0.2754	Ave		0.2987				16.2		20.0			
Trichlorofluoromethane	0.1860 0.2357	0.2264	0.2197	0.2191	0.2346	Ave		0.2202			0.1000	8.3		20.0			
Ethyl ether	0.2372 0.2220	0.2254	0.2359	0.2329	0.2374	Ave		0.2318				2.8		20.0			
Acrolein	0.0267 0.0275	0.0209	0.0286	0.0301	0.0297	Ave		0.0272				12.3		20.0			
1,1-Dichloroethene	0.2239 0.2146	0.2383	0.2370	0.2366	0.2233	Ave		0.2290			0.1000	4.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1418 0.1374	0.1710	0.1400	0.1336	0.1320	Ave		0.1426			0.0500	10.1		20.0			
Acetone	0.0899 0.0698	0.0697	0.0777	0.0559	0.0734	Ave		0.0728			0.0100	15.3		20.0			
Iodomethane	0.2762 0.2939	0.3233	0.3405	0.3400	0.3239	Ave		0.3163				8.2		20.0			
Carbon disulfide	0.6049 0.6014	0.6235	0.6432	0.6631	0.6332	Ave		0.6282			0.1000	3.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1541 0.2155	0.1768	0.1947	0.2032	0.2137	Ave		0.1930				12.3		20.0			
Methyl acetate	0.1502 0.1439	0.1483	0.1486	0.1498	0.1534	Ave		0.1490			0.1000	2.1		20.0			
Methylene Chloride	0.4225 0.2443	0.3330	0.2888	0.2680	0.2558	Lin1	0.1884	0.2432			0.1000				1.0000		0.9900
2-Methyl-2-propanol	0.0133 0.0126	0.0144	0.0137	0.0132	0.0136	Ave		0.0135				4.2		20.0			
Acrylonitrile	0.0804 0.0744	0.0752	0.0758	0.0762	0.0786	Ave		0.0768				3.0		20.0			
Methyl tert-butyl ether	0.6853 0.6998	0.6812	0.7122	0.7138	0.7495	Ave		0.7070			0.1000	3.5		20.0			
trans-1,2-Dichloroethene	0.3541 0.2770	0.2899	0.2860	0.2800	0.2806	Ave		0.2946			0.1000	10.0		20.0			
Hexane	0.0647 0.0606	0.0855	0.0650	0.0582	0.0615	Ave		0.0659				15.0		20.0			
1,1-Dichloroethane	0.4828 0.4698	0.4605	0.4785	0.4697	0.4675	Ave		0.4715			0.2000	1.7		20.0			
Vinyl acetate	0.4885 0.4256	0.4150	0.4259	0.4249	0.4476	Ave		0.4379				6.2		20.0			
cis-1,2-Dichloroethene	0.3086 0.3045	0.2831	0.3157	0.3080	0.3059	Ave		0.3043			0.1000	3.6		20.0			
2,2-Dichloropropane	0.2969 0.2429	0.2849	0.2880	0.2767	0.2713	Ave		0.2768				6.8		20.0			
2-Butanone (MEK)	0.0856 0.1002	0.0900	0.0976	0.0889	0.1087	Ave		0.0952			0.0100	9.1		20.0			
Chlorobromomethane	0.1424 0.1414	0.1351	0.1455	0.1402	0.1415	Ave		0.1410				2.4		20.0			
Tetrahydrofuran	0.0584 0.0535	0.0541	0.0553	0.0558	0.0577	Ave		0.0558				3.5		20.0			
Chloroform	0.4596 0.4385	0.4269	0.4516	0.4355	0.4415	Ave		0.4423			0.2000	2.6		20.0			
1,1,1-Trichloroethane	0.3520 0.3112	0.3333	0.3329	0.3290	0.3267	Ave		0.3308			0.1000	4.0		20.0			
Cyclohexane	0.3226 0.3693	0.4157	0.3644	0.3648	0.3705	Ave		0.3679			0.1000	8.0		20.0			
1,1-Dichloropropene	0.3531 0.3655	0.3433	0.3642	0.3628	0.3640	Ave		0.3588				2.5		20.0			
Carbon tetrachloride	0.2696 0.2833	0.2771	0.2852	0.2897	0.2925	Ave		0.2829			0.1000	3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0054 0.0062	0.0056	0.0058	0.0059	0.0070	Ave		0.0060				9.7		20.0			
1,2-Dichloroethane	0.3038 0.3081	0.3005	0.3092	0.3092	0.3114	Ave		0.3070			0.1000	1.3		20.0			
Benzene	1.2544 1.1967	1.1474	1.1805	1.1846	1.1868	Ave		1.1917			0.5000	2.9		20.0			
n-Heptane	0.0588 0.0618	0.0778	0.0537	0.0525	0.0574	Ave		0.0603				15.2		20.0			
Trichloroethene	0.3031 0.2996	0.2845	0.2958	0.3029	0.3024	Ave		0.2980			0.1500	2.4		20.0			
Methylcyclohexane	0.3651 0.3604	0.4206	0.3558	0.3398	0.3500	Ave		0.3653			0.1000	7.8		20.0			
1,2-Dichloropropane	0.2753 0.2798	0.2700	0.2777	0.2773	0.2807	Ave		0.2768			0.1000	1.4		20.0			
Dibromomethane	0.1511 0.1376	0.1410	0.1479	0.1450	0.1454	Ave		0.1447				3.3		20.0			
1,4-Dioxane	0.0006 0.0014	0.0012	0.0017	0.0016	0.0017	Qua	-0.035	0.0020	-0.000001						0.9990		0.9900
Dichlorobromomethane	0.3248 0.3256	0.3060	0.3186	0.3193	0.3277	Ave		0.3203			0.1500	2.5		20.0			
2-Chloroethyl vinyl ether	0.1488 0.1525	0.1435	0.1598	0.1595	0.1611	Ave		0.1542				4.6		20.0			
cis-1,3-Dichloropropene	0.3667 0.4576	0.3819	0.4293	0.4377	0.4543	Ave		0.4213			0.1500	9.1		20.0			
4-Methyl-2-pentanone (MIBK)	0.1897 0.1912	0.1791	0.1957	0.1952	0.2115	Ave		0.1937			0.0500	5.5		20.0			
Toluene	1.7741 1.7554	1.5882	1.7205	1.6569	1.7145	Ave		1.7016			0.4000	4.0		20.0			
trans-1,3-Dichloropropene	0.4332 0.5340	0.4332	0.4862	0.5054	0.5330	Ave		0.4875			0.1000	9.4		20.0			
Ethyl methacrylate	0.4609 0.4782	0.4371	0.4723	0.4791	0.5093	Ave		0.4728				5.0		20.0			
1,1,2-Trichloroethane	0.2737 0.2926	0.2812	0.3069	0.2998	0.3074	Ave		0.2936			0.1000	4.7		20.0			
Tetrachloroethene	0.3257 0.3259	0.3075	0.3204	0.3167	0.3259	Ave		0.3204			0.1500	2.3		20.0			
1,3-Dichloropropane	0.5508 0.5441	0.4982	0.5436	0.5418	0.5561	Ave		0.5391				3.8		20.0			
2-Hexanone	0.1763 0.2095	0.1515	0.2001	0.1850	0.2254	Ave		0.1913			0.0500	13.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2250 0.3372	0.2446	0.2890	0.3106	0.3252	Ave		0.2886				15.6		20.0			
Ethylene Dibromide	0.3157 0.2835	0.2981	0.2940	0.2886	0.2900	Ave		0.2950				3.8		20.0			
Chlorobenzene	1.0772 1.0502	0.9549	1.0420	1.0189	1.0365	Ave		1.0299			0.3000	4.0		20.0			
1,1,1,2-Tetrachloroethane	0.3328 0.3558	0.3181	0.3487	0.3520	0.3500	Ave		0.3429				4.2		20.0			
Ethylbenzene	0.5781 0.5679	0.5240	0.5615	0.5550	0.5641	Ave		0.5585				3.3		20.0			
m-Xylene & p-Xylene	0.7120 0.6936	0.6416	0.6926	0.6836	0.7009	Ave		0.6874				3.5		20.0			
o-Xylene	0.6710 0.6584	0.6124	0.6755	0.6620	0.6659	Ave		0.6575				3.5		20.0			
Styrene	1.1948 1.2052	1.0973	1.2038	1.1677	1.2000	Ave		1.1781			0.3000	3.6		20.0			
Bromoform	0.1088 0.2086	0.1276	0.1561	0.1793	0.2007	Lin1	-0.138	0.2067			0.1000				0.9970		0.9900
Isopropylbenzene	1.5677 1.6128	1.4753	1.5937	1.5519	1.5881	Ave		1.5649			0.1000	3.1		20.0			
1,1,2,2-Tetrachloroethane	0.6626 0.6723	0.6522	0.6683	0.6985	0.7133	Ave		0.6779			0.3000	3.4		20.0			
Bromobenzene	0.9267 0.9186	0.8563	0.8967	0.8864	0.9068	Ave		0.8986				2.8		20.0			
1,2,3-Trichloropropane	0.3173 0.2076	0.2047	0.2131	0.2102	0.2217	Ave		0.2291				19.0		20.0			
trans-1,4-Dichloro-2-butene	0.1101 0.1501	0.1042	0.0985	0.0982	0.1305	Ave		0.1153				18.1		20.0			
N-Propylbenzene	0.9053 0.8876	0.8180	0.8521	0.8411	0.8542	Ave		0.8597				3.7		20.0			
2-Chlorotoluene	0.8878 0.7638	0.7625	0.7958	0.7737	0.7491	Ave		0.7888				6.5		20.0			
1,3,5-Trimethylbenzene	2.4481 2.5421	2.3447	2.4454	2.4236	2.4490	Ave		2.4421				2.6		20.0			
4-Chlorotoluene	0.8789 0.8143	0.8094	0.7888	0.7925	0.7814	Ave		0.8109				4.4		20.0			
tert-Butylbenzene	2.1204 2.1411	2.0019	2.0719	2.0467	2.0821	Ave		2.0774				2.4		20.0			
1,2,4-Trimethylbenzene	2.6319 2.6041	2.4369	2.4811	2.4859	2.5064	Ave		2.5244				3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.7503 2.8029	2.5631	2.6283	2.6548	2.6674	Ave		2.6778				3.2		20.0			
1,3-Dichlorobenzene	1.5265 1.4672	1.3965	1.5191	1.4340	1.4524	Ave		1.4660			0.6000	3.4		20.0			
4-Isopropyltoluene	2.3033 2.4239	2.2080	2.2762	2.2933	2.3300	Ave		2.3058				3.1		20.0			
1,4-Dichlorobenzene	1.5825 1.5295	1.4512	1.5325	1.4911	1.4999	Ave		1.5145			0.5000	2.9		20.0			
n-Butylbenzene	1.9521 1.8489	1.7283	1.8047	1.7726	1.7963	Ave		1.8172				4.2		20.0			
1,2-Dichlorobenzene	1.4123 1.3422	1.2790	1.3396	1.3381	1.3553	Ave		1.3444			0.4000	3.2		20.0			
1,2-Dibromo-3-Chloropropane	0.0941 0.1214	0.1100	0.1123	0.1225	0.1306	Ave		0.1151			0.0500	11.1		20.0			
1,2,4-Trichlorobenzene	0.7459 0.7159	0.6811	0.6942	0.6932	0.6843	Ave		0.7024			0.2000	3.5		20.0			
Hexachlorobutadiene	0.3422 0.3089	0.3100	0.3209	0.3128	0.3015	Ave		0.3161				4.5		20.0			
Naphthalene	1.6223 1.5604	1.4977	1.5542	1.5956	1.6680	Ave		1.5830				3.7		20.0			
1,2,3-Trichlorobenzene	0.5850 0.5964	0.5669	0.5945	0.5957	0.5961	Ave		0.5891				2.0		20.0			
Dibromofluoromethane (Surr)	0.2660 0.2297	0.2382	0.2290	0.2327	0.2318	Ave		0.2379				5.9		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2934 0.2612	0.2774	0.2726	0.2714	0.2754	Ave		0.2752				3.8		20.0			
Toluene-d8 (Surr)	1.4632 1.4815	1.4274	1.4333	1.4143	1.4441	Ave		1.4440				1.7		20.0			
4-Bromofluorobenzene (Surr)	0.5365 0.4571	0.4569	0.4798	0.4735	0.4735	Ave		0.4796				6.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272388/7	UXJ1047.D
Level 2	STD8260 240-272388/6	UXJ1046.D
Level 3	STD8260 240-272388/5	UXJ1045.D
Level 4	STD8260 240-272388/4	UXJ1044.D
Level 5	STD8260 240-272388/3	UXJ1043.D
Level 6	STD8260 240-272388/2	UXJ1042.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	13296 681734	25998	67562	132260	352869	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	20660 748481	35482	90537	178218	374087	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	17443 718830	34348	86257	171711	362930	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	17049 580456	40706	81613	164912	331755	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Lin1	12876 331051	20623	44303	78110	165103	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	8051 356489	16381	42659	85731	180239	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	31089 905166	56424	113439	228322	475355	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	15424 836479	37153	92015	183698	405005	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	19671 787914	36998	98784	195316	409804	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	11079 487144	17152	59928	126023	256546	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	18569 761560	39115	99265	198436	385375	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	11760 487681	28069	58618	112028	227779	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Ave	14913 495754	22885	65104	93795	253482	2.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	22905 1043218	53066	142621	285110	559031	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	50170 2134423	102336	269375	556068	1092988	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	12781 764823	29024	81548	170411	368885	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	62291 2553158	121736	311086	628065	1323531	5.00 200	10.0	25.0	50.0	100
Methylene Chloride	FB	Lin1	35038 867017	54658	120966	224721	441439	1.00 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	10998 448821	23576	57203	110912	234691	10.0 400	20.0	50.0	100	200
Acrylonitrile	FB	Ave	66675 2641918	123389	317322	639099	1357394	10.0 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	56837 2483677	111815	298269	598561	1293685	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	29368 983202	47577	119771	234766	484390	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	5363 215055	14028	27222	48795	106201	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	40042 1667387	75589	200413	393892	806933	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	40516 1510638	68125	178356	356338	772583	1.00 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	25593 1080588	46474	132224	258267	528016	1.00 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	24626 862078	46771	120617	232041	468203	1.00 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	14191 711447	29547	81731	149145	375166	2.00 80.0	4.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	11807 501840	22182	60954	117536	244293	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	9681 379736	17749	46304	93601	199297	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	38116 1556243	70078	189135	365157	761966	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	29189 1104352	54709	139406	275890	563848	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	26757 1310784	68239	152601	305938	639521	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	29286 1297288	56343	152512	304200	628294	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	22357 1005420	45485	119435	242928	504873	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	CBNZ d5	Ave	8338 402113	17056	44497	91571	224437	25.0 1000	50.0	125	250	500
1,2-Dichloroethane	FB	Ave	25194 1093528	49329	129482	259275	537398	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	104033 4247251	188332	494386	993388	2048384	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	4876 219360	12774	22508	44066	98987	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	25133 1063441	46700	123863	253972	521953	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	30277 1279075	69040	149011	284955	604141	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	22831 992918	44317	116287	232565	484566	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	12534 488277	23143	61938	121607	250922	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Qua	927 100656	3813	13831	27131	58731	20.0 800	40.0	100	200	400
Dichlorobromomethane	FB	Ave	26937 1155511	50230	133417	267771	565671	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	24680 1082725	47093	133883	267431	556035	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	30410 1624017	62692	179807	367076	784119	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	31457 1357301	58782	163899	327362	730086	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	109145 4567124	194889	530832	1031697	2191414	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	26651 1389302	53153	150012	314702	681304	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	28353 1244128	53639	145715	298342	650926	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	16836 761137	34504	94674	186671	392928	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	20040 847928	37727	98861	197186	416588	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	33887 1415488	61134	167708	337348	710712	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	21690 1089861	37185	123466	230342	576277	2.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	13844 877283	30011	89177	193423	415610	1.00 40.0	2.00	5.00	10.0	20.0
Ethylene Dibromide	CBNZ d5	Ave	19424 737488	36584	90700	179729	370604	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	66269 2732295	117180	321475	634459	1324749	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	20472 925643	39029	107582	219166	447332	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	35568 1477483	64300	173234	345613	721042	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	43805 1804637	78729	213687	425662	895841	1.00 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBNZ d5	Ave	41282 1713004	75141	208399	412193	851108	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	73508 3135561	134644	371410	727088	1533742	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Lin1	6693 542742	15653	48159	111629	256548	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	96449 4195929	181034	491703	966365	2029796	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	19597 815175	37780	101504	211326	440909	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	27410 1113798	49607	136187	268154	560541	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	9386 251702	11860	32365	63589	137063	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	3257 182047	6038	14967	29723	80679	1.00 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	26775 1076221	47389	129409	254453	528015	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	26259 926158	44172	120858	234076	463063	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	72407 3082345	135827	371399	733204	1513826	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	25996 987428	46888	119796	239750	483033	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCBd 4	Ave	62716 2596141	115971	314678	619179	1287034	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	77843 3157571	141169	376818	752076	1549282	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	81345 3398671	148480	399186	803176	1648832	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	45150 1779043	80902	230723	433841	897766	1.00 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	68125 2939119	127909	345712	693788	1440244	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	46805 1854614	84070	232754	451098	927154	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	57737 2241904	100123	274095	536269	1110385	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	41770 1627473	74095	203462	404814	837747	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2782 147239	6373	17054	37053	80725	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	22060 868088	39458	105430	209702	423012	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Ave	10122 374507	17958	48745	94631	186376	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	47981 1892003	86764	236052	482735	1031066	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	17303 723200	32841	90288	180228	368452	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	22057 815354	39103	95916	195142	400040	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	24336 927115	45534	114155	227621	475303	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	90015 3854391	175158	442229	880637	1845750	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	33009 1189305	56067	148021	294831	605220	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 240-272388/15 Calibration Date: 03/29/2017 14:47

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1055.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2379	0.1992		0.0100	0.0120	-16.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2138		0.00929	0.0120	-22.3*	20.0
Toluene-d8 (Surr)	Ave	1.444	1.204		0.00997	0.0120	-16.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.4028		0.0100	0.0120	-16.0	20.0

ICV %D 50%

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 240-272388/15 Calibration Date: 03/29/2017 14:47

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 12:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 14:24

Lab File ID: UXJ1055.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0181	0.0162		0.0895	0.100	-10.5	20.0
Isopropyl ether	Ave	0.2617	0.2631		0.0101	0.0100	0.5	20.0
2-Chloro-1,3-butadiene	Ave	0.4583	0.4307		0.00940	0.0100	-6.0	20.0
Tert-butyl ethyl ether	Ave	0.8371	0.7949		0.00950	0.0100	-5.0	20.0
Ethyl acetate	Ave	0.1936	0.1718		0.0178	0.0200	-11.2	50.0
Propionitrile	Ave	0.0241	0.0220		0.0913	0.100	-8.7	20.0
Methacrylonitrile	Ave	0.1333	0.1221		0.0916	0.100	-8.4	20.0
Tert-amyl methyl ether	Ave	0.7539	0.7317		0.00970	0.0100	-3.0	20.0
n-Butanol	Ave	0.0051	0.0033		0.162	0.250	-35.1*	20.0
Ethyl acrylate	Ave	0.2937	0.2711		0.00923	0.0100	-7.7	20.0
Methyl methacrylate	Ave	0.2018	0.1859		0.0184	0.0200	-7.8	20.0
2-Nitropropane	Ave	0.0491	0.0453		0.0185	0.0200	-7.7	20.0
n-Butyl acetate	Ave	0.3308	0.2978		0.00900	0.0100	-10.0	30.0
1-Chlorohexane	Ave	0.4626	0.4255		0.00920	0.0100	-8.0	20.0
Cyclohexanone	Lin1		0.0086		0.0665	0.100	-33.5*	20.0
Pentachloroethane	Lin1		0.1984		0.0192	0.0200	-4.2	20.0
1,2,3-Trimethylbenzene	Ave	2.527	2.416		0.00956	0.0100	-4.4	20.0
Benzyl chloride	Lin1		0.2778		0.00855	0.0100	-14.5	20.0
1,3,5-Trichlorobenzene	Ave	0.8021	0.7284		0.00908	0.0100	-9.2	20.0
2-Methylnaphthalene	Ave	0.9439	0.6804		0.0144	0.0200	-27.9*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1724	0.1520	0.1000	0.00882	0.0100	-11.8	20.0
Chloromethane	Ave	0.2203	0.1934	0.1000	0.00878	0.0100	-12.2	20.0
Vinyl chloride	Ave	0.2072	0.1812	0.1000	0.00875	0.0100	-12.5	20.0
Butadiene	Ave	0.2001	0.1707		0.00853	0.0100	-14.7	30.0
Bromomethane	Lin1		0.0803	0.0500	0.00808	0.0100	-19.2	20.0
Chloroethane	Ave	0.1010	0.0911	0.0500	0.00903	0.0100	-9.7	20.0
Dichlorofluoromethane	Ave	0.2987	0.2255		0.00755	0.0100	-24.5*	20.0
Trichlorofluoromethane	Ave	0.2202	0.1985	0.1000	0.00901	0.0100	-9.9	20.0
Ethyl ether	Ave	0.2318	0.2049		0.00884	0.0100	-11.6	20.0
Acrolein	Ave	0.0272	0.0288		0.0529	0.0500	5.7	50.0
1,1-Dichloroethene	Ave	0.2290	0.1927	0.1000	0.00842	0.0100	-15.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1426	0.1116	0.0500	0.00783	0.0100	-21.7*	20.0
Acetone	Ave	0.0728	0.0341	0.0100	0.00937	0.0200	-53.2*	50.0
Iodomethane	Ave	0.3163	0.2412		0.00763	0.0100	-23.7*	20.0
Carbon disulfide	Ave	0.6282	0.5005	0.1000	0.00797	0.0100	-20.3*	20.0
3-Chloro-1-propene	Ave	0.1930	0.1810		0.00938	0.0100	-6.2	20.0
Methyl acetate	Ave	0.1490	0.1241	0.1000	0.0416	0.0500	-16.8	20.0
Methylene Chloride	Lin1		0.2495	0.1000	0.00949	0.0100	-5.1	50.0
2-Methyl-2-propanol	Ave	0.0135	0.0092		0.0686	0.100	-31.4	50.0
Acrylonitrile	Ave	0.0768	0.0647		0.0842	0.100	-15.8	20.0
Methyl tert-butyl ether	Ave	0.7070	0.6302	0.1000	0.00891	0.0100	-10.9	20.0
trans-1,2-Dichloroethene	Ave	0.2946	0.2591	0.1000	0.00879	0.0100	-12.1	20.0
Hexane	Ave	0.0659	0.0491		0.00744	0.0100	-25.6*	20.0
1,1-Dichloroethane	Ave	0.4715	0.4226	0.2000	0.00896	0.0100	-10.4	20.0
Vinyl acetate	Ave	0.4379	0.3731		0.00852	0.0100	-14.8	50.0
2,2-Dichloropropane	Ave	0.2768	0.2325		0.00840	0.0100	-16.0	20.0
2-Butanone (MEK)	Ave	0.0952	0.0659	0.0100	0.0138	0.0200	-30.8*	20.0
cis-1,2-Dichloroethene	Ave	0.3043	0.2828	0.1000	0.00929	0.0100	-7.1	20.0
Chlorobromomethane	Ave	0.1410	0.1239		0.00879	0.0100	-12.1	20.0
Tetrahydrofuran	Ave	0.0558	0.0443		0.0159	0.0200	-20.6*	20.0
Chloroform	Ave	0.4423	0.3996	0.2000	0.00903	0.0100	-9.7	20.0
1,1,1-Trichloroethane	Ave	0.3308	0.2958	0.1000	0.00894	0.0100	-10.6	20.0
Cyclohexane	Ave	0.3679	0.3157	0.1000	0.00858	0.0100	-14.2	20.0
1,1-Dichloropropene	Ave	0.3588	0.3320		0.00925	0.0100	-7.5	20.0
Carbon tetrachloride	Ave	0.2829	0.2512	0.1000	0.00888	0.0100	-11.2	20.0
Isobutyl alcohol	Ave	0.0060	0.0043		0.179	0.250	-28.4*	20.0
1,2-Dichloroethane	Ave	0.3070	0.2757	0.1000	0.00898	0.0100	-10.2	20.0
Benzene	Ave	1.192	1.080	0.5000	0.00906	0.0100	-9.4	20.0
n-Heptane	Ave	0.0603	0.0475		0.00787	0.0100	-21.3*	20.0
Trichloroethene	Ave	0.2980	0.2656	0.1500	0.00891	0.0100	-10.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3653	0.2928	0.1000	0.00802	0.0100	-19.8	20.0
1,2-Dichloropropane	Ave	0.2768	0.2561	0.1000	0.00925	0.0100	-7.5	20.0
Dibromomethane	Ave	0.1447	0.1263		0.00873	0.0100	-12.7	20.0
1,4-Dioxane	Qua		0.0008		0.0990	0.200	-50.5*	50.0
Dichlorobromomethane	Ave	0.3203	0.2954	0.1500	0.00922	0.0100	-7.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1542	0.1392		0.00903	0.0100	-9.7	20.0
cis-1,3-Dichloropropene	Ave	0.4213	0.4040	0.1500	0.00959	0.0100	-4.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1937	0.1614	0.0500	0.0167	0.0200	-16.7	20.0
Toluene	Ave	1.702	1.557	0.4000	0.00915	0.0100	-8.5	20.0
trans-1,3-Dichloropropene	Ave	0.4875	0.4476	0.1000	0.00918	0.0100	-8.2	20.0
Ethyl methacrylate	Ave	0.4728	0.4224		0.00893	0.0100	-10.7	20.0
1,1,2-Trichloroethane	Ave	0.2936	0.2688	0.1000	0.00916	0.0100	-8.4	20.0
Tetrachloroethene	Ave	0.3204	0.2926	0.1500	0.00913	0.0100	-8.7	20.0
1,3-Dichloropropane	Ave	0.5391	0.4881		0.00905	0.0100	-9.5	20.0
2-Hexanone	Ave	0.1913	0.1463	0.0500	0.0153	0.0200	-23.5*	20.0
Chlorodibromomethane	Ave	0.2886	0.2708		0.00938	0.0100	-6.2	20.0
Ethylene Dibromide	Ave	0.2950	0.2590		0.00878	0.0100	-12.2	20.0
Chlorobenzene	Ave	1.030	0.9464	0.3000	0.00919	0.0100	-8.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3429	0.3303		0.00963	0.0100	-3.7	20.0
Ethylbenzene	Ave	0.5585	0.5055		0.00905	0.0100	-9.5	20.0
m-Xylene & p-Xylene	Ave	0.6874	0.6356		0.00925	0.0100	-7.5	20.0
o-Xylene	Ave	0.6575	0.6107		0.00929	0.0100	-7.1	20.0
Styrene	Ave	1.178	1.093	0.3000	0.00928	0.0100	-7.2	20.0
Bromoform	Lin1		0.1552	0.1000	0.00818	0.0100	-18.2	20.0
Isopropylbenzene	Ave	1.565	1.437	0.1000	0.00918	0.0100	-8.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6779	0.6005	0.3000	0.00886	0.0100	-11.4	20.0
Bromobenzene	Ave	0.8986	0.8270		0.00920	0.0100	-8.0	20.0
1,2,3-Trichloropropane	Ave	0.2291	0.1944		0.00848	0.0100	-15.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1153	0.0968		0.00839	0.0100	-16.1	20.0
N-Propylbenzene	Ave	0.8597	0.7745		0.00901	0.0100	-9.9	20.0
2-Chlorotoluene	Ave	0.7888	0.7065		0.00896	0.0100	-10.4	20.0
1,3,5-Trimethylbenzene	Ave	2.442	2.239		0.00917	0.0100	-8.3	20.0
4-Chlorotoluene	Ave	0.8109	0.7310		0.00901	0.0100	-9.9	20.0
tert-Butylbenzene	Ave	2.077	1.870		0.00900	0.0100	-10.0	20.0
1,2,4-Trimethylbenzene	Ave	2.524	2.289		0.00907	0.0100	-9.3	20.0
sec-Butylbenzene	Ave	2.678	2.378		0.00888	0.0100	-11.2	20.0
1,3-Dichlorobenzene	Ave	1.466	1.342	0.6000	0.00916	0.0100	-8.4	20.0
4-Isopropyltoluene	Ave	2.306	2.072		0.00898	0.0100	-10.2	20.0
1,4-Dichlorobenzene	Ave	1.514	1.395	0.5000	0.00921	0.0100	-7.9	20.0
n-Butylbenzene	Ave	1.817	1.579		0.00869	0.0100	-13.1	20.0
1,2-Dichlorobenzene	Ave	1.344	1.222	0.4000	0.00909	0.0100	-9.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1151	0.1007	0.0500	0.00874	0.0100	-12.6	50.0
1,2,4-Trichlorobenzene	Ave	0.7024	0.5999	0.2000	0.00854	0.0100	-14.6	50.0
Hexachlorobutadiene	Ave	0.3161	0.2508		0.00793	0.0100	-20.7*	20.0
Naphthalene	Ave	1.583	1.363		0.00861	0.0100	-13.9	50.0
1,2,3-Trichlorobenzene	Ave	0.5891	0.5323		0.00904	0.0100	-9.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2379	0.1846		0.00928	0.0120	-22.4*	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2096		0.00911	0.0120	-23.9*	20.0
Toluene-d8 (Surr)	Ave	1.444	1.157		0.00958	0.0120	-19.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.3742		0.00933	0.0120	-22.0*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab File ID: BFB70331.D BFB Injection Date: 03/31/2017

Instrument ID: A3UX11 BFB Injection Time: 09:45

Analysis Batch No.: 272768

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.7	
75	30.0 - 60.0 % of mass 95	44.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	93.8	
175	5.0 - 9.0 % of mass 174	6.9	(7.4) 1
176	95.0 - 101.0 % of mass 174	91.8	(97.8) 1
177	5.0 - 9.0 % of mass 176	6.2	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-272768/2	UXJ1120.D	03/31/2017	10:13
	LCS 240-272768/4	UXJ1121.D	03/31/2017	10:35
	CCV 240-272768/3	UXJ1122.D	03/31/2017	10:58
	MB 240-272768/6	UXJ1124.D	03/31/2017	11:44
TB-032717	240-77337-5	UXJ1142.D	03/31/2017	18:33
	200-37906-B-3 MS	UXJ1145.D	03/31/2017	19:41
	200-37906-B-3 MSD	UXJ1146.D	03/31/2017	20:04

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1724	0.2005	0.1000	0.0116	0.0100	16.3	20.0
Chloromethane	Ave	0.2203	0.2078	0.1000	0.00943	0.0100	-5.7	20.0
Vinyl chloride	Ave	0.2072	0.1893	0.1000	0.00914	0.0100	-8.6	20.0
Butadiene	Ave	0.2001	0.1618		0.00808	0.0100	-19.2	20.0
Bromomethane	Lin1		0.0773	0.0500	0.00776	0.0100	-22.4*	20.0
Chloroethane	Ave	0.1010	0.0848	0.0500	0.00840	0.0100	-16.0	20.0
Dichlorofluoromethane	Ave	0.2987	0.2453		0.00821	0.0100	-17.9	20.0
Trichlorofluoromethane	Ave	0.2202	0.2168	0.1000	0.00984	0.0100	-1.6	20.0
Ethyl ether	Ave	0.2318	0.2093		0.00903	0.0100	-9.7	20.0
Acrolein	Ave	0.0272	0.0246		0.0451	0.0500	-9.8	50.0
1,1-Dichloroethene	Ave	0.2290	0.2173	0.1000	0.00949	0.0100	-5.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1426	0.1252	0.0500	0.00878	0.0100	-12.2	20.0
Acetone	Ave	0.0728	0.0507	0.0100	0.0139	0.0200	-30.3	50.0
Iodomethane	Ave	0.3163	0.2760		0.00873	0.0100	-12.7	20.0
Carbon disulfide	Ave	0.6282	0.5479	0.1000	0.00872	0.0100	-12.8	20.0
3-Chloro-1-propene	Ave	0.1930	0.1668		0.00864	0.0100	-13.6	20.0
Methyl acetate	Ave	0.1490	0.1307	0.1000	0.0439	0.0500	-12.3	20.0
Methylene Chloride	Lin1		0.2616	0.1000	0.00998	0.0100	-0.2	50.0
2-Methyl-2-propanol	Ave	0.0135	0.0110		0.0814	0.100	-18.6	50.0
Acrylonitrile	Ave	0.0768	0.0669		0.0872	0.100	-12.8	20.0
Methyl tert-butyl ether	Ave	0.7070	0.6705	0.1000	0.00948	0.0100	-5.2	20.0
trans-1,2-Dichloroethene	Ave	0.2946	0.2762	0.1000	0.00938	0.0100	-6.2	20.0
Hexane	Ave	0.0659	0.0605		0.00918	0.0100	-8.2	20.0
1,1-Dichloroethane	Ave	0.4715	0.4402	0.2000	0.00934	0.0100	-6.6	20.0
Vinyl acetate	Ave	0.4379	0.3709		0.00847	0.0100	-15.3	50.0
2,2-Dichloropropane	Ave	0.2768	0.2419		0.00874	0.0100	-12.6	20.0
2-Butanone (MEK)	Ave	0.0952	0.0758	0.0100	0.0159	0.0200	-20.4*	20.0
cis-1,2-Dichloroethene	Ave	0.3043	0.3084	0.1000	0.0101	0.0100	1.3	20.0
Chlorobromomethane	Ave	0.1410	0.1388		0.00984	0.0100	-1.6	20.0
Tetrahydrofuran	Ave	0.0558	0.0466		0.0167	0.0200	-16.4	20.0
Chloroform	Ave	0.4423	0.4335	0.2000	0.00980	0.0100	-2.0	20.0
1,1,1-Trichloroethane	Ave	0.3308	0.3156	0.1000	0.00954	0.0100	-4.6	20.0
Cyclohexane	Ave	0.3679	0.3580	0.1000	0.00973	0.0100	-2.7	20.0
1,1-Dichloropropene	Ave	0.3588	0.3527		0.00983	0.0100	-1.7	20.0
Carbon tetrachloride	Ave	0.2829	0.2672	0.1000	0.00944	0.0100	-5.6	20.0
Isobutyl alcohol	Ave	0.0060	0.0048		0.202	0.250	-19.0	20.0
1,2-Dichloroethane	Ave	0.3070	0.2937	0.1000	0.00957	0.0100	-4.3	20.0
Benzene	Ave	1.192	1.140	0.5000	0.00957	0.0100	-4.3	20.0
n-Heptane	Ave	0.0603	0.0582		0.00965	0.0100	-3.5	20.0
Trichloroethene	Ave	0.2980	0.2952	0.1500	0.00990	0.0100	-1.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3653	0.3484	0.1000	0.00954	0.0100	-4.6	20.0
1,2-Dichloropropane	Ave	0.2768	0.2599	0.1000	0.00939	0.0100	-6.1	20.0
Dibromomethane	Ave	0.1447	0.1360		0.00940	0.0100	-6.0	20.0
1,4-Dioxane	Qua		0.0008		0.0980	0.200	-51.0*	50.0
Dichlorobromomethane	Ave	0.3203	0.2890	0.1500	0.00902	0.0100	-9.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1542	0.1406		0.0182	0.0200	-8.8	20.0
cis-1,3-Dichloropropene	Ave	0.4213	0.3740	0.1500	0.00888	0.0100	-11.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1937	0.1613	0.0500	0.0167	0.0200	-16.7	20.0
Toluene	Ave	1.702	1.635	0.4000	0.00961	0.0100	-3.9	20.0
trans-1,3-Dichloropropene	Ave	0.4875	0.3938	0.1000	0.00808	0.0100	-19.2	20.0
Ethyl methacrylate	Ave	0.4728	0.4224		0.00893	0.0100	-10.7	20.0
1,1,2-Trichloroethane	Ave	0.2936	0.2877	0.1000	0.00980	0.0100	-2.0	20.0
Tetrachloroethene	Ave	0.3204	0.3158	0.1500	0.00986	0.0100	-1.4	20.0
1,3-Dichloropropane	Ave	0.5391	0.5115		0.00949	0.0100	-5.1	20.0
2-Hexanone	Ave	0.1913	0.1439	0.0500	0.0150	0.0200	-24.8*	20.0
Chlorodibromomethane	Ave	0.2886	0.2361		0.00818	0.0100	-18.2	20.0
Ethylene Dibromide	Ave	0.2950	0.2751		0.00932	0.0100	-6.8	20.0
Chlorobenzene	Ave	1.030	0.997	0.3000	0.00968	0.0100	-3.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3429	0.3204		0.00935	0.0100	-6.5	20.0
Ethylbenzene	Ave	0.5585	0.5409		0.00968	0.0100	-3.2	20.0
m-Xylene & p-Xylene	Ave	0.6874	0.6686		0.00973	0.0100	-2.7	20.0
o-Xylene	Ave	0.6575	0.6420		0.00976	0.0100	-2.4	20.0
Styrene	Ave	1.178	1.135	0.3000	0.00964	0.0100	-3.6	20.0
Bromoform	Lin1		0.1122	0.1000	0.00610	0.0100	-39.0*	20.0
Isopropylbenzene	Ave	1.565	1.521	0.1000	0.00972	0.0100	-2.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6779	0.6238	0.3000	0.00920	0.0100	-8.0	20.0
Bromobenzene	Ave	0.8986	0.9018		0.0100	0.0100	0.4	20.0
1,2,3-Trichloropropane	Ave	0.2291	0.1991		0.00869	0.0100	-13.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1153	0.0490		0.00425	0.0100	-57.5*	20.0
N-Propylbenzene	Ave	0.8597	0.8464		0.00984	0.0100	-1.6	20.0
2-Chlorotoluene	Ave	0.7888	0.7428		0.00942	0.0100	-5.8	20.0
1,3,5-Trimethylbenzene	Ave	2.442	2.442		0.0100	0.0100	0.0	20.0
4-Chlorotoluene	Ave	0.8109	0.7822		0.00965	0.0100	-3.5	20.0
tert-Butylbenzene	Ave	2.077	2.031		0.00978	0.0100	-2.2	20.0
1,2,4-Trimethylbenzene	Ave	2.524	2.484		0.00984	0.0100	-1.6	20.0
sec-Butylbenzene	Ave	2.678	2.649		0.00989	0.0100	-1.1	20.0
1,3-Dichlorobenzene	Ave	1.466	1.442	0.6000	0.00984	0.0100	-1.6	20.0
4-Isopropyltoluene	Ave	2.306	2.250		0.00976	0.0100	-2.4	20.0
1,4-Dichlorobenzene	Ave	1.514	1.470	0.5000	0.00971	0.0100	-2.9	20.0
n-Butylbenzene	Ave	1.817	1.748		0.00962	0.0100	-3.8	20.0
1,2-Dichlorobenzene	Ave	1.344	1.330	0.4000	0.00989	0.0100	-1.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1151	0.0975	0.0500	0.00847	0.0100	-15.3	50.0
1,2,4-Trichlorobenzene	Ave	0.7024	0.6567	0.2000	0.00935	0.0100	-6.5	50.0
Hexachlorobutadiene	Ave	0.3161	0.2927		0.00926	0.0100	-7.4	20.0
Naphthalene	Ave	1.583	1.427		0.00901	0.0100	-9.9	50.0
1,2,3-Trichlorobenzene	Ave	0.5891	0.5351		0.00908	0.0100	-9.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2379	0.2377		0.00999	0.0100	-0.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2698		0.00980	0.0100	-2.0	20.0
Toluene-d8 (Surr)	Ave	1.444	1.435		0.00994	0.0100	-0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.4696		0.00979	0.0100	-2.1	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab File ID: BFB3479.D BFB Injection Date: 10/31/2016

Instrument ID: A3UX9 BFB Injection Time: 12:14

Analysis Batch No.: 253710

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	81.8	
175	5.0 - 9.0 % of mass 174	5.9	(7.2) 1
176	95.0 - 101.0 % of mass 174	80.9	(98.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-253710/8	UX959470.D	10/31/2016	13:31
	STD8260 240-253710/9	UX959471.D	10/31/2016	13:55
	STD8260 240-253710/10	UX959472.D	10/31/2016	14:20
	ICIS 240-253710/11	UX959473.D	10/31/2016	14:44
	STD8260 240-253710/12	UX959474.D	10/31/2016	15:08
	STD8260 240-253710/13	UX959475.D	10/31/2016	15:31
	STDA9 240-253710/15	UX959477.D	10/31/2016	16:20
	STDA9 240-253710/16	UX959478.D	10/31/2016	16:44
	STDA9 240-253710/17	UX959479.D	10/31/2016	17:08
	STDA9 240-253710/18	UX959480.D	10/31/2016	17:32
	STDA9 240-253710/19	UX959481.D	10/31/2016	17:56
	STDA9 240-253710/20	UX959482.D	10/31/2016	18:20
	ICV 240-253710/22	UX959484.D	10/31/2016	19:09
	ICV 240-253710/23	UX959485.D	10/31/2016	19:33

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-253710/8	UX959470.D
Level 2	STD8260 240-253710/9	UX959471.D
Level 3	STD8260 240-253710/10	UX959472.D
Level 4	ICIS 240-253710/11	UX959473.D
Level 5	STD8260 240-253710/12	UX959474.D
Level 6	STD8260 240-253710/13	UX959475.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2740 0.3110	0.2716	0.2989	0.2939	0.3264	Ave		0.2960			0.1000	7.2		20.0			
Chloromethane	0.3760 0.3337	0.3407	0.3694	0.3368	0.3588	Ave		0.3526			0.1000	5.1		20.0			
Vinyl chloride	0.3009 0.3414	0.3318	0.3722	0.3407	0.3619	Ave		0.3415			0.1000	7.3		20.0			
Butadiene	+++++ 0.3268	0.2168	0.2797	0.3026	0.3283	Ave		0.2909				15.8		20.0			
Bromomethane	0.1937 0.2501	0.1952	0.2199	0.2077	0.2234	Ave		0.2150			0.0500	9.8		20.0			
Chloroethane	0.1543 0.2476	0.1912	0.2494	0.2301	0.2469	Ave		0.2199			0.0500	17.7		20.0			
Dichlorofluoromethane	0.3725 0.5509	0.4178	0.5768	0.5402	0.5830	Ave		0.5069				17.6		20.0			
Trichlorofluoromethane	0.3107 0.4549	0.3855	0.4467	0.4326	0.4727	Ave		0.4172			0.1000	14.4		20.0			
Ethyl ether	0.1906 0.2453	0.2082	0.2425	0.2372	0.2480	Ave		0.2286				10.3		20.0			
Acrolein	0.0379 0.0356	0.0299	0.0323	0.0329	0.0360	Ave		0.0341				8.6		20.0			
1,1-Dichloroethene	0.3555 0.5265	0.4280	0.5369	0.4991	0.5281	Ave		0.4790			0.1000	15.1		20.0			
Acetone	+++++ 0.1056	0.1566	0.1192	0.1039	0.0988	Lin1	0.1173	0.1029			0.0100				0.9980		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.2848	0.1673	0.2782	0.2606	0.2864	Ave		0.2555			0.0500	19.7		20.0			
Iodomethane	0.3928 0.4627	0.4110	0.4526	0.4319	0.4610	Ave		0.4353				6.6		20.0			
Carbon disulfide	0.7849 0.8581	1.0236	0.8141	0.7260	0.8171	Ave		0.8373			0.1000	12.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.3504 0.3857	0.3632	0.3389	0.3492	0.3769	Ave		0.3607				5.0		20.0			
Methyl acetate	0.2313 0.2140	0.2276	0.2155	0.2066	0.2192	Ave		0.2190			0.1000	4.2		20.0			
Methylene Chloride	+++++ 0.3576	0.4410	0.3959	0.3491	0.3706	Ave		0.3828			0.1000	9.7		20.0			
2-Methyl-2-propanol	0.0247 0.0298	0.0214	0.0271	0.0260	0.0285	Ave		0.0262				11.3		20.0			
Acrylonitrile	0.0917 0.1045	0.0887	0.1017	0.1002	0.1038	Ave		0.0984				6.7		20.0			
trans-1,2-Dichloroethene	0.3245 0.3491	0.3572	0.3524	0.3424	0.3605	Ave		0.3477			0.1000	3.7		20.0			
Methyl tert-butyl ether	0.7869 0.8678	0.7533	0.8472	0.8294	0.8677	Ave		0.8254			0.1000	5.6		20.0			
Hexane	0.2438 0.2902	0.2349	0.2662	0.2595	0.2778	Ave		0.2621				7.9		20.0			
1,1-Dichloroethane	0.4042 0.4522	0.4181	0.4501	0.4390	0.4558	Ave		0.4365			0.2000	4.8		20.0			
Vinyl acetate	0.4045 0.4353	0.4208	0.3889	0.3960	0.4425	Ave		0.4147				5.2		20.0			
cis-1,2-Dichloroethene	0.3148 0.3690	0.4060	0.3712	0.3562	0.3704	Ave		0.3646			0.1000	8.1		20.0			
2-Butanone (MEK)	0.1329 0.1042	0.1093	0.1263	0.1044	0.1134	Ave		0.1151			0.0100	10.4		20.0			
2,2-Dichloropropane	0.1901 0.2047	0.1713	0.2006	0.1957	0.2025	Ave		0.1941				6.4		20.0			
Chlorobromomethane	0.2096 0.2081	0.1998	0.2125	0.2003	0.2083	Ave		0.2064				2.5		20.0			
Tetrahydrofuran	0.0720 0.0795	0.0759	0.0825	0.0775	0.0815	Ave		0.0782				4.9		20.0			
Chloroform	0.3597 0.4300	0.3989	0.4331	0.4234	0.4333	Ave		0.4131			0.2000	7.1		20.0			
1,1,1-Trichloroethane	0.2584 0.3174	0.2802	0.3075	0.3090	0.3145	Ave		0.2978			0.1000	7.9		20.0			
Cyclohexane	0.2974 0.3060	0.2183	0.2760	0.2912	0.3026	Ave		0.2819			0.1000	11.7		20.0			
1,1-Dichloropropene	0.3395 0.3666	0.3387	0.3505	0.3501	0.3605	Ave		0.3510				3.2		20.0			
Carbon tetrachloride	0.2613 0.3093	0.2264	0.2724	0.2772	0.3000	Ave		0.2744			0.1000	10.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0084 0.0093	0.0074	0.0078	0.0085	0.0097	Ave		0.0085				10.1		20.0			
Benzene	0.9773 1.0660	1.0220	1.0742	1.0397	1.0682	Ave		1.0412			0.5000	3.6		20.0			
1,2-Dichloroethane	0.3961 0.3697	0.3827	0.3803	0.3625	0.3771	Ave		0.3781			0.1000	3.1		20.0			
n-Heptane	+++++ 0.1709	0.2884	0.1629	0.1584	0.1591	Lin1	0.1055	0.1629							0.9970		0.9900
Trichloroethene	0.2541 0.2829	0.2997	0.2875	0.2799	0.2864	Ave		0.2817			0.1500	5.4		20.0			
Methylcyclohexane	0.2846 0.3569	0.2848	0.3042	0.3184	0.3339	Ave		0.3138			0.1000	9.1		20.0			
1,2-Dichloropropane	0.2495 0.2481	0.1942	0.2495	0.2437	0.2470	Ave		0.2387			0.1000	9.2		20.0			
Dibromomethane	0.1552 0.1739	0.1655	0.1743	0.1666	0.1769	Ave		0.1687				4.7		20.0			
1,4-Dioxane	+++++ 0.0032	0.0024	0.0029	0.0030	0.0035	Ave		0.0030				13.8		20.0			
Dichlorobromomethane	0.3054 0.3294	0.2754	0.3271	0.3062	0.3291	Ave		0.3121			0.1500	6.8		20.0			
2-Chloroethyl vinyl ether	0.1560 0.1849	0.1341	0.1797	0.1726	0.1870	Ave		0.1691				12.1		20.0			
cis-1,3-Dichloropropene	0.2523 0.4313	0.2934	0.3728	0.3872	0.4186	Ave		0.3593			0.1500	19.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2026 0.2453	0.2461	0.2500	0.2299	0.2496	Ave		0.2373			0.0500	7.8		20.0			
Toluene	1.4206 1.4774	1.4725	1.5025	1.4923	1.5137	Ave		1.4798			0.4000	2.2		20.0			
trans-1,3-Dichloropropene	0.2796 0.5131	0.2726	0.4215	0.4591	0.4920	Lin1	-0.174	0.4989			0.1000				0.9970		0.9900
Ethyl methacrylate	0.3130 0.4707	0.3237	0.4263	0.4409	0.4731	Ave		0.4079				17.6		20.0			
1,1,2-Trichloroethane	0.3081 0.2999	0.2772	0.3080	0.3024	0.3068	Ave		0.3004			0.1000	3.9		20.0			
1,3-Dichloropropane	0.6075 0.5716	0.5788	0.5768	0.5793	0.5784	Ave		0.5821				2.2		20.0			
Tetrachloroethene	0.3586 0.3405	0.3383	0.3436	0.3387	0.3416	Ave		0.3436			0.1500	2.2		20.0			
2-Hexanone	0.2018 0.2018	0.1934	0.2073	0.1915	0.2197	Ave		0.2026			0.0500	5.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.1404 0.3065	0.1885	0.2484	0.2756	0.2950	Lin1	-0.105	0.2984							0.9980		0.9900
Ethylene Dibromide	0.2818 0.3054	0.3040	0.3311	0.3104	0.3187	Ave		0.3086				5.4		20.0			
Chlorobenzene	0.9750 1.0017	0.9551	1.0118	1.0056	1.0282	Ave		0.9962			0.3000	2.7		20.0			
1,1,1,2-Tetrachloroethane	0.2813 0.3318	0.2359	0.3172	0.3274	0.3332	Ave		0.3045				12.7		20.0			
Ethylbenzene	0.4404 0.5339	0.4911	0.5201	0.5113	0.5358	Ave		0.5054				7.1		20.0			
m-Xylene & p-Xylene	0.5992 0.6588	0.5788	0.6697	0.6570	0.6729	Ave		0.6394				6.3		20.0			
o-Xylene	0.5545 0.6792	0.5872	0.6405	0.6521	0.6814	Ave		0.6325				8.1		20.0			
Styrene	0.8056 1.1519	0.9111	1.1233	1.1040	1.1602	Ave		1.0427			0.3000	14.2		20.0			
Bromoform	+++++ 0.1766	0.0859	0.1170	0.1416	0.1675	Lin1	-0.133	0.1694			0.1000				0.9910		0.9900
Isopropylbenzene	1.2431 1.5845	1.3447	1.5455	1.5475	1.6237	Ave		1.4815			0.1000	10.2		20.0			
1,1,2,2-Tetrachloroethane	0.7108 0.7699	0.7110	0.7430	0.7870	0.8001	Ave		0.7536			0.3000	5.1		20.0			
Bromobenzene	0.8207 0.7612	0.6939	0.7347	0.7577	0.7503	Ave		0.7530				5.5		20.0			
1,2,3-Trichloropropane	0.2485 0.2711	0.3099	0.2817	0.2863	0.2921	Ave		0.2816				7.4		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1738	0.0625	0.0690	0.1124	0.1260	Ave		0.1087				41.8	*	20.0			
N-Propylbenzene	0.6363 0.8060	0.6257	0.7201	0.7721	0.8051	Ave		0.7275				11.2		20.0			
2-Chlorotoluene	0.7681 0.7075	0.6942	0.6721	0.7044	0.7140	Ave		0.7100				4.5		20.0			
1,3,5-Trimethylbenzene	1.8942 2.3715	2.1949	2.1735	2.3146	2.3769	Ave		2.2209				8.2		20.0			
4-Chlorotoluene	0.5507 0.7519	0.7443	0.6934	0.7605	0.7709	Ave		0.7119				11.7		20.0			
tert-Butylbenzene	2.0342 2.0192	1.6703	2.0785	2.1994	2.0101	Ave		2.0019				8.8		20.0			
1,2,4-Trimethylbenzene	2.1059 2.4987	2.1501	2.3475	2.3966	2.5422	Ave		2.3402				7.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	0.4930 0.6053	0.4674	0.5469	0.5678	0.6023	Ave		0.5471				10.4		20.0			
1,3-Dichlorobenzene	1.4747 1.4345	1.3741	1.3942	1.4360	1.4594	Ave		1.4288			0.6000	2.7		20.0			
4-Isopropyltoluene	1.9791 2.4964	1.8194	2.2548	2.3826	2.4732	Ave		2.2342				12.4		20.0			
1,4-Dichlorobenzene	1.5384 1.4732	1.4645	1.4443	1.4810	1.5290	Ave		1.4884			0.5000	2.5		20.0			
n-Butylbenzene	1.9787 2.0882	1.7947	1.8431	1.9428	2.0350	Ave		1.9471				5.8		20.0			
1,2-Dichlorobenzene	1.4745 1.4141	1.3672	1.4031	1.4539	1.4554	Ave		1.4280			0.4000	2.8		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1722	0.0650	0.1512	0.1567	0.1716	Lin1	-0.120	0.1719			0.0500				0.9990		0.9900
1,2,4-Trichlorobenzene	0.8436 0.9146	0.6838	0.8064	0.8665	0.8854	Ave		0.8334			0.2000	9.8		20.0			
Hexachlorobutadiene	0.4432 0.3312	0.3109	0.2943	0.3070	0.3063	Ave		0.3322				16.8		20.0			
Naphthalene	2.4514 2.7719	2.3780	2.4048	2.6107	2.6834	Ave		2.5500				6.4		20.0			
1,2,3-Trichlorobenzene	0.9107 0.8620	0.7802	0.7873	0.8217	0.8212	Ave		0.8305				5.9		20.0			
Dibromofluoromethane (Surr)	0.1929 0.2274	0.2019	0.2216	0.2329	0.2400	Ave		0.2195				8.4		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2494 0.2961	0.2965	0.3087	0.2986	0.3032	Ave		0.2921				7.3		20.0			
Toluene-d8 (Surr)	1.2398 1.2745	1.2319	1.2744	1.2585	1.3026	Ave		1.2636				2.1		20.0			
4-Bromofluorobenzene (Surr)	0.3856 0.4810	0.4277	0.4870	0.4711	0.5020	Ave		0.4591				9.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-253710/8	UX959470.D
Level 2	STD8260 240-253710/9	UX959471.D
Level 3	STD8260 240-253710/10	UX959472.D
Level 4	ICIS 240-253710/11	UX959473.D
Level 5	STD8260 240-253710/12	UX959474.D
Level 6	STD8260 240-253710/13	UX959475.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	7215 1354562	14123	150362	320332	680696	0.500 80.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	9901 1453567	17721	185864	367090	748373	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7925 1486854	17259	187275	371300	754695	0.500 80.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	+++++ 1423385	11278	140691	329806	684778	+++++ 80.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	5102 1089114	10150	110611	226377	465972	0.500 80.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4063 1078543	9943	125457	250787	515011	0.500 80.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	9809 2399500	21731	290176	588799	1215776	0.500 80.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	8183 1981425	20048	224754	471491	985900	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5020 1068215	10830	121994	258562	517231	0.500 80.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	4996 774717	7773	81367	179175	375498	2.50 400	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	9363 2293011	22261	270090	544040	1101451	0.500 80.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 920206	16285	119921	226597	411943	+++++ 160	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	+++++ 1240587	8703	139978	284084	597254	+++++ 80.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	10343 2015382	21376	227697	470746	961379	0.500 80.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	20669 3737271	53235	409562	791343	1704128	0.500 80.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	9228 1679941	18891	170519	380582	786100	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	30458 4660013	59186	542039	1126032	2285728	2.50 400	5.00	50.0	100	200
Methylene Chloride	FB	Ave	+++++ 1557352	22938	199152	380479	772946	+++++ 80.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	6513 1295882	11111	136439	282930	594168	5.00 800	10.0	100	200	400
Acrylonitrile	FB	Ave	24154 4552207	46141	511631	1091842	2165761	5.00 800	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	8545 1520509	18575	177300	373166	751752	0.500 80.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	20723 3779507	39178	426233	903997	1809706	0.500 80.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	6420 1263719	12219	133920	282890	579408	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10644 1969405	21745	226419	478452	950553	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	10652 1895924	21884	195659	431579	922831	0.500 80.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	8290 1606902	21114	186738	388210	772577	0.500 80.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	6997 907503	11366	127084	227570	472990	1.00 160	2.00	20.0	40.0	80.0
2,2-Dichloropropane	FB	Ave	5006 891342	8909	100902	213339	422245	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	5520 906515	10389	106894	218284	434459	0.500 80.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	3793 692775	7896	82984	169018	339903	1.00 160	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	9473 1872919	20745	217895	461453	903747	0.500 80.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	6804 1382454	14575	154678	336825	655855	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	7831 1332555	11355	138838	317438	631089	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	8940 1596514	17616	176349	381603	751751	0.500 80.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6880 1347035	11775	137053	302139	625742	0.500 80.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	5499 1012918	9667	98074	231505	504642	12.5 2000	25.0	250	500	1000
Benzene	FB	Ave	25736 4642598	53152	540436	1133250	2227875	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	10431 1610337	19906	191345	395098	786494	0.500 80.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 744347	14998	81967	172616	331832	+++++ 80.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6691 1232077	15586	144653	305039	597315	0.500 80.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7496 1554611	14811	153052	347047	696424	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6571 1080421	10098	125536	265634	515135	0.500 80.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	4088 757541	8608	87680	181584	368865	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 277443	2463	29015	64911	145294	+++++ 1600	20.0	200	400	800
Dichlorobromomethane	FB	Ave	8043 1434574	14324	164581	333730	686416	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	8218 1610737	13952	180820	376178	779947	1.00 160	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	6643 1878459	15258	187548	422061	873107	0.500 80.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	10672 2136837	25597	251517	501194	1041090	1.00 160	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	29532 5186071	61194	598326	1261803	2529996	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Lin1	5813 1801088	11327	167834	388177	822247	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6506 1652174	13451	169777	372766	790770	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6405 1052853	11521	122635	255716	512844	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	12629 2006562	24055	229685	489830	966744	0.500 80.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7455 1195419	14057	136836	286414	571006	0.500 80.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	8392 1416575	16077	165132	323820	734278	1.00 160	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Lin1	2918 1075851	7834	98909	233033	493054	0.500 80.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	5858 1071955	12633	131863	262473	532697	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	20269 3516256	39691	402931	850273	1718467	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5848 1164842	9805	126319	276847	556973	0.500 80.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	9155 1874140	20408	207128	432295	895465	0.500 80.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	12456 2312443	24055	266688	555537	1124711	0.500 80.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	11527 2384189	24402	255067	551379	1138821	0.500 80.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	16747 4043520	37864	447307	933518	1939179	0.500 80.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Lin1	+++++ 619768	3569	46601	119719	280012	+++++ 80.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25842 5562069	55884	615469	1308494	2713786	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	7607 1511652	15462	175737	370559	776994	0.500 80.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8783 1494497	15089	173754	356741	728602	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2659 532370	6740	66634	134802	283668	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 341206	1360	16315	52945	122354	+++++ 80.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6810 1582609	13606	170304	363526	781811	0.500 80.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	8220 1389060	15097	158963	331668	693358	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	20272 4656383	47731	514064	1089816	2308137	0.500 80.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	5894 1476314	16185	164004	358055	748607	0.500 80.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	21770 3964535	36324	491581	1035589	1952027	0.500 80.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	22538 4906094	46757	555203	1128409	2468715	0.500 80.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	5276 1188410	10165	129358	267328	584872	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	15783 2816561	29883	329743	676138	1417159	0.500 80.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	21181 4901502	39565	533294	1121821	2401669	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	16464 2892481	31847	341584	697335	1484742	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	21177 4100036	39028	435911	914772	1976160	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	15781 2776485	29731	331849	684572	1413357	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 338136	1414	35755	73785	166645	+++++ 80.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9028 1795714	14871	190723	408008	859827	0.500 80.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4743 650351	6760	69614	144557	297461	0.500 80.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	26236 5442383	51713	568754	1229237	2605820	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9747 1692494	16966	186206	386895	797488	0.500 80.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	5080 990293	10501	111477	253847	500599	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	6569 1289603	15422	155294	325462	632418	0.500 80.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	25773 4473827	51197	507507	1064111	2177199	0.500 80.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	8016 1688410	17773	193918	398362	839102	0.500 80.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 16:20 Calibration End Date: 10/31/2016 18:20 Calibration ID: 36880

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-253710/15	UX959477.D
Level 2	STDA9 240-253710/16	UX959478.D
Level 3	STDA9 240-253710/17	UX959479.D
Level 4	STDA9 240-253710/18	UX959480.D
Level 5	STDA9 240-253710/19	UX959481.D
Level 6	STDA9 240-253710/20	UX959482.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0462 0.0341	0.0380	0.0362	0.0374	0.0347	Ave		0.0378				11.6		20.0			
Isopropyl ether	0.2411 0.2427	0.2510	0.2287	0.2353	0.2432	Ave		0.2403				3.2		20.0			
2-Chloro-1,3-butadiene	0.3500 0.3971	0.3535	0.3964	0.3741	0.3925	Ave		0.3773				5.7		20.0			
Tert-butyl ethyl ether	0.7493 0.8180	0.7652	0.8130	0.7715	0.7909	Ave		0.7846				3.5		20.0			
Ethyl acetate	0.2552 0.2432	0.2676	0.2501	0.2379	0.2457	Ave		0.2500				4.2		20.0			
Propionitrile	0.0334 0.0392	0.0406	0.0396	0.0386	0.0402	Ave		0.0386				6.8		20.0			
Methacrylonitrile	0.1529 0.1719	0.1571	0.1673	0.1623	0.1710	Ave		0.1638				4.7		20.0			
Tert-amyl methyl ether	0.6988 0.8308	0.7203	0.7975	0.7951	0.8047	Ave		0.7745				6.8		20.0			
n-Butanol	0.0061 0.0075	0.0052	0.0065	0.0070	0.0078	Ave		0.0067				14.5		20.0			
Ethyl acrylate	0.3101 0.3442	0.2921	0.3205	0.3303	0.3499	Ave		0.3245				6.7		20.0			
Methyl methacrylate	0.2051 0.2483	0.2053	0.2285	0.2360	0.2479	Ave		0.2285				8.6		20.0			
2-Nitropropane	0.0404 0.0550	0.0464	0.0421	0.0448	0.0501	Ave		0.0465				11.6		20.0			
n-Butyl acetate	0.4390 0.4832	0.3631	0.4272	0.4553	0.4863	Ave		0.4424				10.3		20.0			
1-Chlorohexane	+++++ 0.4359	0.3811	0.4213	0.4176	0.4335	Ave		0.4179				5.3		20.0			
Cyclohexanone	0.0147 0.0208	0.0163	0.0189	0.0226	0.0235	Ave		0.0195				17.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 16:20 Calibration End Date: 10/31/2016 18:20 Calibration ID: 36880

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.2215 0.2552	0.2410	0.3068	0.2335	0.2853	Lin1	-0.025	0.2640							0.9940		0.9900
1,2,3-Trimethylbenzene	2.5280 2.7740	2.3307	2.6593	2.6053	2.7573	Ave		2.6091				6.3		20.0			
Benzyl chloride	+++++ 0.3104	0.1551	0.2171	0.2455	0.2956	Lin1	-0.225	0.2981							0.9920		0.9900
1,3,5-Trichlorobenzene	0.8848 0.9975	0.8091	0.9600	0.9942	0.9772	Ave		0.9371				8.0		20.0			
2-Methylnaphthalene	0.7810 1.5380	0.7327	1.1797	1.4144	1.4289	Lin1	-1.148	1.4842							0.9960		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 16:20 Calibration End Date: 10/31/2016 18:20 Calibration ID: 36880

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-253710/15	UX959477.D
Level 2	STDA9 240-253710/16	UX959478.D
Level 3	STDA9 240-253710/17	UX959479.D
Level 4	STDA9 240-253710/18	UX959480.D
Level 5	STDA9 240-253710/19	UX959481.D
Level 6	STDA9 240-253710/20	UX959482.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	11400 1372601	19240	184138	379071	715001	5.00 800	10.0	100	200	400
Isopropyl ether	FB	Ave	5950 975446	12707	116179	238662	501502	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	8639 1596167	17896	201383	379363	809197	0.500 80.0	1.00	10.0	20.0	40.0
Tert-butyl ethyl ether	FB	Ave	18493 3287989	38742	413033	782441	1630544	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	12595 1954934	27103	254149	482544	1013328	1.00 160	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	8247 1574326	20566	201051	391535	829212	5.00 800	10.0	100	200	400
Methacrylonitrile	FB	Ave	37724 6911067	79544	849808	1646241	3526531	5.00 800	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	17247 3339406	36470	405166	806421	1659075	0.500 80.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	3757 753556	6524	82887	178636	400518	12.5 2000	25.0	250	500	1000
Ethyl acrylate	FB	Ave	7653 1383417	14790	162822	334964	721331	0.500 80.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	10124 1996191	20790	232158	478714	1022300	1.00 160	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	1995 442072	4702	42755	90851	206627	1.00 160	2.00	20.0	40.0	80.0
n-Butyl acetate	CBNZ d5	Ave	8594 1546643	14689	172476	362584	810690	0.500 80.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	+++++ 1395234	15419	170078	332548	722732	+++++ 80.0	1.00	10.0	20.0	40.0
Cyclohexanone	DCBd 4	Ave	1531 358841	3504	38455	93591	201563	5.00 800	10.0	100	200	400
Pentachloroethane	DCBd 4	Lin1	4619 880253	10368	124756	193284	490285	1.00 160	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77337-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 16:20 Calibration End Date: 10/31/2016 18:20 Calibration ID: 36880

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	26362 4784564	50136	540669	1078277	2369597	0.500 80.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Lin1	+++++ 535336	3337	44134	101589	254017	+++++ 80.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	9227 1720561	17404	195180	411456	839796	0.500 80.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	16289 5305616	31521	479694	1170741	2455942	1.00 160	2.00	20.0	40.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2533	0.1000	0.0171	0.0200	-14.4	20.0
Chloromethane	Ave	0.3526	0.3515	0.1000	0.0199	0.0200	-0.3	20.0
Vinyl chloride	Ave	0.3415	0.3456	0.1000	0.0202	0.0200	1.2	20.0
Butadiene	Ave	0.2909	0.3127		0.0215	0.0200	7.5	30.0
Bromomethane	Ave	0.2150	0.2223	0.0500	0.0207	0.0200	3.4	20.0
Chloroethane	Ave	0.2199	0.2452	0.0500	0.0223	0.0200	11.5	20.0
Dichlorofluoromethane	Ave	0.5069	0.5584		0.0220	0.0200	10.2	20.0
Trichlorofluoromethane	Ave	0.4172	0.4225	0.1000	0.0203	0.0200	1.3	20.0
Ethyl ether	Ave	0.2286	0.2300		0.0201	0.0200	0.6	20.0
Acrolein	Ave	0.0341	0.0543		0.159	0.100	59.1*	50.0
1,1-Dichloroethene	Ave	0.4790	0.4601	0.1000	0.0192	0.0200	-4.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2481	0.0500	0.0194	0.0200	-2.9	20.0
Acetone	Lin1		0.0845	0.0100	0.0317	0.0400	-20.7	50.0
Iodomethane	Ave	0.4353	0.4584		0.0211	0.0200	5.3	20.0
Carbon disulfide	Ave	0.8373	0.7252	0.1000	0.0173	0.0200	-13.4	20.0
3-Chloro-1-propene	Ave	0.3607	0.3451		0.0191	0.0200	-4.3	20.0
Methyl acetate	Ave	0.2190	0.2129	0.1000	0.0972	0.100	-2.8	20.0
Methylene Chloride	Ave	0.3828	0.3604	0.1000	0.0188	0.0200	-5.9	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0282		0.215	0.200	7.6	50.0
Acrylonitrile	Ave	0.0984	0.1032		0.210	0.200	4.8	20.0
Methyl tert-butyl ether	Ave	0.8254	0.8372	0.1000	0.0203	0.0200	1.4	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3345	0.1000	0.0192	0.0200	-3.8	20.0
Hexane	Ave	0.2621	0.2567		0.0196	0.0200	-2.0	20.0
1,1-Dichloroethane	Ave	0.4365	0.4281	0.2000	0.0196	0.0200	-1.9	20.0
Vinyl acetate	Ave	0.4147	0.3918		0.0189	0.0200	-5.5	50.0
2-Butanone (MEK)	Ave	0.1151	0.1224	0.0100	0.0426	0.0400	6.4	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3542	0.1000	0.0194	0.0200	-2.9	20.0
2,2-Dichloropropane	Ave	0.1941	0.1822		0.0188	0.0200	-6.1	20.0
Chlorobromomethane	Ave	0.2064	0.2118		0.0205	0.0200	2.6	20.0
Tetrahydrofuran	Ave	0.0782	0.0777		0.0398	0.0400	-0.6	20.0
Chloroform	Ave	0.4131	0.4211	0.2000	0.0204	0.0200	1.9	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.3065	0.1000	0.0206	0.0200	2.9	20.0
Cyclohexane	Ave	0.2819	0.2737	0.1000	0.0194	0.0200	-2.9	20.0
1,1-Dichloropropene	Ave	0.3510	0.3315		0.0189	0.0200	-5.6	20.0
Carbon tetrachloride	Ave	0.2744	0.2728	0.1000	0.0199	0.0200	-0.6	20.0
Isobutyl alcohol	Ave	0.0085	0.0090		0.531	0.500	6.1	20.0
1,2-Dichloroethane	Ave	0.3781	0.3730	0.1000	0.0197	0.0200	-1.4	20.0
Benzene	Ave	1.041	1.037	0.5000	0.0199	0.0200	-0.4	20.0
n-Heptane	Lin1		0.1424		0.0168	0.0200	-15.8	20.0
Trichloroethene	Ave	0.2817	0.2733	0.1500	0.0194	0.0200	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.3031	0.1000	0.0193	0.0200	-3.4	20.0
1,2-Dichloropropane	Ave	0.2387	0.2474	0.1000	0.0207	0.0200	3.7	20.0
1,4-Dioxane	Ave	0.0030	0.0033		0.443	0.400	10.8	50.0
Dibromomethane	Ave	0.1687	0.1663		0.0197	0.0200	-1.4	20.0
Dichlorobromomethane	Ave	0.3121	0.3023	0.1500	0.0194	0.0200	-3.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1779		0.0210	0.0200	5.2	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3907	0.1500	0.0218	0.0200	8.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2443	0.0500	0.0412	0.0400	2.9	20.0
Toluene	Ave	1.480	1.413	0.4000	0.0191	0.0200	-4.5	20.0
trans-1,3-Dichloropropene	Lin1		0.4109	0.1000	0.0168	0.0200	-15.9	20.0
Ethyl methacrylate	Ave	0.4079	0.4428		0.0217	0.0200	8.5	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2990	0.1000	0.0199	0.0200	-0.5	20.0
1,3-Dichloropropane	Ave	0.5821	0.5487		0.0189	0.0200	-5.7	20.0
Tetrachloroethene	Ave	0.3436	0.3278	0.1500	0.0191	0.0200	-4.6	20.0
2-Hexanone	Ave	0.2026	0.2188	0.0500	0.0432	0.0400	8.0	20.0
Chlorodibromomethane	Lin1		0.2534		0.0173	0.0200	-13.3	20.0
Ethylene Dibromide	Ave	0.3086	0.3139		0.0203	0.0200	1.7	20.0
Chlorobenzene	Ave	0.996	0.9792	0.3000	0.0197	0.0200	-1.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.3082		0.0202	0.0200	1.2	20.0
Ethylbenzene	Ave	0.5054	0.4868		0.0193	0.0200	-3.7	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6106		0.0191	0.0200	-4.5	20.0
o-Xylene	Ave	0.6325	0.6033		0.0191	0.0200	-4.6	20.0
Styrene	Ave	1.043	1.068	0.3000	0.0205	0.0200	2.4	20.0
Bromoform	Lin1		0.1338	0.1000	0.0166	0.0200	-17.1	20.0
Isopropylbenzene	Ave	1.482	1.476	0.1000	0.0199	0.0200	-0.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.8038	0.3000	0.0213	0.0200	6.7	20.0
Bromobenzene	Ave	0.7530	0.7621		0.0202	0.0200	1.2	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2807		0.0199	0.0200	-0.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.0976		0.0179	0.0200	-10.3	20.0
N-Propylbenzene	Ave	0.7275	0.7555		0.0208	0.0200	3.8	20.0
2-Chlorotoluene	Ave	0.7100	0.7027		0.0198	0.0200	-1.0	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.248		0.0202	0.0200	1.2	20.0
4-Chlorotoluene	Ave	0.7119	0.7423		0.0209	0.0200	4.3	20.0
tert-Butylbenzene	Ave	2.002	1.877		0.0188	0.0200	-6.2	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.374		0.0203	0.0200	1.4	20.0
sec-Butylbenzene	Ave	0.5471	0.5588		0.0204	0.0200	2.1	20.0
1,3-Dichlorobenzene	Ave	1.429	1.429	0.6000	0.0200	0.0200	0.0	20.0
4-Isopropyltoluene	Ave	2.234	2.314		0.0207	0.0200	3.6	20.0
1,4-Dichlorobenzene	Ave	1.488	1.507	0.5000	0.0202	0.0200	1.2	20.0
n-Butylbenzene	Ave	1.947	1.835		0.0189	0.0200	-5.7	20.0
1,2-Dichlorobenzene	Ave	1.428	1.430	0.4000	0.0200	0.0200	0.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1570	0.0500	0.0190	0.0200	-5.2	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.8250	0.2000	0.0198	0.0200	-1.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2855		0.0172	0.0200	-14.1	20.0
Naphthalene	Ave	2.550	2.625		0.0206	0.0200	3.0	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.8077		0.0195	0.0200	-2.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2034		0.0185	0.0200	-7.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2643		0.0181	0.0200	-9.5	20.0
Toluene-d8 (Surr)	Ave	1.264	1.172		0.0185	0.0200	-7.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4615		0.0201	0.0200	0.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 240-253710/23 Calibration Date: 10/31/2016 19:33

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959485.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2195	0.2007		0.0183	0.0200	-8.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2628		0.0180	0.0200	-10.0	20.0
Toluene-d8 (Surr)	Ave	1.264	1.168		0.0185	0.0200	-7.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4371		0.0190	0.0200	-4.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 240-253710/23 Calibration Date: 10/31/2016 19:33

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 16:20

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 18:20

Lab File ID: UX959485.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0378	0.0359		0.190	0.200	-4.9	20.0
Isopropyl ether	Ave	0.2403	0.2383		0.0198	0.0200	-0.9	20.0
2-Chloro-1,3-butadiene	Ave	0.3773	0.3737		0.0198	0.0200	-1.0	20.0
Tert-butyl ethyl ether	Ave	0.7846	0.7774		0.0198	0.0200	-0.9	20.0
Propionitrile	Ave	0.0386	0.0394		0.204	0.200	2.1	20.0
Ethyl acetate	Ave	0.2500	0.2360		0.0378	0.0400	-5.6	50.0
Methacrylonitrile	Ave	0.1638	0.1653		0.202	0.200	0.9	20.0
Tert-amyl methyl ether	Ave	0.7745	0.7819		0.0202	0.0200	1.0	20.0
n-Butanol	Ave	0.0067	0.0070		0.526	0.500	5.2	20.0
Ethyl acrylate	Ave	0.3245	0.3193		0.0197	0.0200	-1.6	20.0
Methyl methacrylate	Ave	0.2285	0.2347		0.0411	0.0400	2.7	20.0
2-Nitropropane	Ave	0.0465	0.0446		0.0384	0.0400	-4.1	20.0
n-Butyl acetate	Ave	0.4424	0.4390		0.0198	0.0200	-0.8	30.0
1-Chlorohexane	Ave	0.4179	0.3933		0.0188	0.0200	-5.9	20.0
Cyclohexanone	Ave	0.0195	0.0199		0.205	0.200	2.3	20.0
Pentachloroethane	Lin1		0.3010		0.0457	0.0400	14.3	20.0
1,2,3-Trimethylbenzene	Ave	2.609	2.524		0.0193	0.0200	-3.3	20.0
Benzyl chloride	Lin1		0.2112		0.0149	0.0200	-25.4*	20.0
1,3,5-Trichlorobenzene	Ave	0.9371	0.8841		0.0189	0.0200	-5.7	20.0
2-Methylnaphthalene	Lin1		1.173		0.0324	0.0400	-19.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab File ID: BFB3616.D BFB Injection Date: 04/04/2017

Instrument ID: A3UX9 BFB Injection Time: 21:18

Analysis Batch No.: 273301

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.7	
75	30.0 - 60.0 % of mass 95	48.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	82.4	
175	5.0 - 9.0 % of mass 174	6.2	(7.5) 1
176	95.0 - 101.0 % of mass 174	79.6	(96.7) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-273301/3	UX962875.D	04/04/2017	21:45
	CCV 240-273301/4	UX962876.D	04/04/2017	22:09
	LCS 240-273301/5	UX962877.D	04/04/2017	22:31
	MB 240-273301/7	UX962879.D	04/04/2017	23:19
MRC-MW37C-032717	240-77337-1	UX962884.D	04/05/2017	01:19
MRC-SEMW-7I-032717	240-77337-2	UX962885.D	04/05/2017	01:42
MRC-SEMW-8S-032717	240-77337-3	UX962886.D	04/05/2017	02:06
MRC-SEMW-8I-032717	240-77337-4	UX962887.D	04/05/2017	02:30
	240-77450-A-4 MS	UX962899.D	04/05/2017	07:17
	240-77450-A-4 MSD	UX962900.D	04/05/2017	07:41

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCVIS 240-273301/3 Calibration Date: 04/04/2017 21:45

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962875.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.3677	0.1000	0.0248	0.0200	24.2*	20.0
Chloromethane	Ave	0.3526	0.3907	0.1000	0.0222	0.0200	10.8	20.0
Vinyl chloride	Ave	0.3415	0.3859	0.1000	0.0226	0.0200	13.0	20.0
Butadiene	Ave	0.2909	0.2633		0.0181	0.0200	-9.5	20.0
Bromomethane	Ave	0.2150	0.2316	0.0500	0.0215	0.0200	7.7	20.0
Chloroethane	Ave	0.2199	0.2600	0.0500	0.0236	0.0200	18.2	20.0
Dichlorofluoromethane	Ave	0.5069	0.6035		0.0238	0.0200	19.1	20.0
Trichlorofluoromethane	Ave	0.4172	0.4887	0.1000	0.0234	0.0200	17.1	20.0
Ethyl ether	Ave	0.2286	0.2508		0.0219	0.0200	9.7	20.0
Acrolein	Ave	0.0341	0.0480		0.141	0.100	40.7	50.0
1,1-Dichloroethene	Ave	0.4790	0.5227	0.1000	0.0218	0.0200	9.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2821	0.0500	0.0221	0.0200	10.4	20.0
Acetone	Lin1		0.1158	0.0100	0.0439	0.0400	9.7	50.0
Iodomethane	Ave	0.4353	0.4191		0.0193	0.0200	-3.7	20.0
Carbon disulfide	Ave	0.8373	0.7120	0.1000	0.0170	0.0200	-15.0	20.0
3-Chloro-1-propene	Ave	0.3607	0.3287		0.0182	0.0200	-8.9	20.0
Methyl acetate	Ave	0.2190	0.2301	0.1000	0.105	0.100	5.0	20.0
Methylene Chloride	Ave	0.3828	0.4006	0.1000	0.0209	0.0200	4.6	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0283		0.215	0.200	7.7	50.0
Acrylonitrile	Ave	0.0984	0.1172		0.238	0.200	19.0	20.0
Methyl tert-butyl ether	Ave	0.8254	0.8300	0.1000	0.0201	0.0200	0.6	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3752	0.1000	0.0216	0.0200	7.9	20.0
Hexane	Ave	0.2621	0.2687		0.0205	0.0200	2.5	20.0
1,1-Dichloroethane	Ave	0.4365	0.4447	0.2000	0.0204	0.0200	1.9	20.0
Vinyl acetate	Ave	0.4147	0.3937		0.0190	0.0200	-5.0	50.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3839	0.1000	0.0211	0.0200	5.3	20.0
2,2-Dichloropropane	Ave	0.1941	0.1642		0.0169	0.0200	-15.4	20.0
2-Butanone (MEK)	Ave	0.1151	0.1426	0.0100	0.0496	0.0400	23.9*	20.0
Chlorobromomethane	Ave	0.2064	0.2156		0.0209	0.0200	4.4	20.0
Tetrahydrofuran	Ave	0.0782	0.0860		0.0440	0.0400	10.0	20.0
Chloroform	Ave	0.4131	0.4517	0.2000	0.0219	0.0200	9.4	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2868	0.1000	0.0193	0.0200	-3.7	20.0
Cyclohexane	Ave	0.2819	0.3026	0.1000	0.0215	0.0200	7.3	20.0
1,1-Dichloropropene	Ave	0.3510	0.3527		0.0201	0.0200	0.5	20.0
Carbon tetrachloride	Ave	0.2744	0.2417	0.1000	0.0176	0.0200	-11.9	20.0
Isobutyl alcohol	Ave	0.0085	0.0097		0.569	0.500	13.9	20.0
1,2-Dichloroethane	Ave	0.3781	0.3684	0.1000	0.0195	0.0200	-2.6	20.0
Benzene	Ave	1.041	1.103	0.5000	0.0212	0.0200	5.9	20.0
n-Heptane	Lin1		0.1543		0.0183	0.0200	-8.5	20.0
Trichloroethene	Ave	0.2817	0.2802	0.1500	0.0199	0.0200	-0.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCVIS 240-273301/3 Calibration Date: 04/04/2017 21:45

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962875.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.3235	0.1000	0.0206	0.0200	3.1	20.0
1,2-Dichloropropane	Ave	0.2387	0.2610	0.1000	0.0219	0.0200	9.3	20.0
1,4-Dioxane	Ave	0.0030	0.0031		0.417	0.400	4.3	50.0
Dibromomethane	Ave	0.1687	0.1879		0.0223	0.0200	11.3	20.0
Dichlorobromomethane	Ave	0.3121	0.3140	0.1500	0.0201	0.0200	0.6	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1684		0.0398	0.0400	-0.4	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3909	0.1500	0.0218	0.0200	8.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2630	0.0500	0.0443	0.0400	10.9	20.0
Toluene	Ave	1.480	1.470	0.4000	0.0199	0.0200	-0.7	20.0
trans-1,3-Dichloropropene	Lin1		0.4239	0.1000	0.0173	0.0200	-13.3	20.0
Ethyl methacrylate	Ave	0.4079	0.4077		0.0200	0.0200	-0.0	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.3195	0.1000	0.0213	0.0200	6.4	20.0
1,3-Dichloropropane	Ave	0.5821	0.5564		0.0191	0.0200	-4.4	20.0
Tetrachloroethene	Ave	0.3436	0.3402	0.1500	0.0198	0.0200	-1.0	20.0
2-Hexanone	Ave	0.2026	0.2321	0.0500	0.0458	0.0400	14.6	20.0
Chlorodibromomethane	Lin1		0.2595		0.0177	0.0200	-11.3	20.0
Ethylene Dibromide	Ave	0.3086	0.3036		0.0197	0.0200	-1.6	20.0
Chlorobenzene	Ave	0.996	0.9610	0.3000	0.0193	0.0200	-3.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2984		0.0196	0.0200	-2.0	20.0
Ethylbenzene	Ave	0.5054	0.4977		0.0197	0.0200	-1.5	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6461		0.0202	0.0200	1.0	20.0
o-Xylene	Ave	0.6325	0.6144		0.0194	0.0200	-2.9	20.0
Styrene	Ave	1.043	1.082	0.3000	0.0208	0.0200	3.8	20.0
Bromoform	Lin1		0.1612	0.1000	0.0198	0.0200	-0.9	20.0
Isopropylbenzene	Ave	1.482	1.510	0.1000	0.0204	0.0200	1.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7338	0.3000	0.0195	0.0200	-2.6	20.0
Bromobenzene	Ave	0.7530	0.6975		0.0185	0.0200	-7.4	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2648		0.0188	0.0200	-6.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1274		0.0234	0.0200	17.2	20.0
N-Propylbenzene	Ave	0.7275	0.6863		0.0189	0.0200	-5.7	20.0
2-Chlorotoluene	Ave	0.7100	0.5996		0.0169	0.0200	-15.6	20.0
1,3,5-Trimethylbenzene	Ave	2.221	1.985		0.0179	0.0200	-10.6	20.0
4-Chlorotoluene	Ave	0.7119	0.6658		0.0187	0.0200	-6.5	20.0
tert-Butylbenzene	Ave	2.002	1.889		0.0189	0.0200	-5.6	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.147		0.0183	0.0200	-8.3	20.0
sec-Butylbenzene	Ave	0.5471	0.5092		0.0186	0.0200	-6.9	20.0
1,3-Dichlorobenzene	Ave	1.429	1.335	0.6000	0.0187	0.0200	-6.5	20.0
4-Isopropyltoluene	Ave	2.234	2.083		0.0186	0.0200	-6.8	20.0
1,4-Dichlorobenzene	Ave	1.488	1.352	0.5000	0.0182	0.0200	-9.1	20.0
n-Butylbenzene	Ave	1.947	1.726		0.0177	0.0200	-11.3	20.0
1,2-Dichlorobenzene	Ave	1.428	1.326	0.4000	0.0186	0.0200	-7.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCVIS 240-273301/3 Calibration Date: 04/04/2017 21:45

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962875.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1345	0.0500	0.0163	0.0200	-18.3	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.7242	0.2000	0.0174	0.0200	-13.1	50.0
Hexachlorobutadiene	Ave	0.3322	0.2873		0.0173	0.0200	-13.5	20.0
Naphthalene	Ave	2.550	2.158		0.0169	0.0200	-15.4	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.6873		0.0166	0.0200	-17.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2198		0.0200	0.0200	0.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2653		0.0182	0.0200	-9.2	20.0
Toluene-d8 (Surr)	Ave	1.264	1.193		0.0189	0.0200	-5.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4776		0.0208	0.0200	4.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCV 240-273301/4 Calibration Date: 04/04/2017 22:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 16:20

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 18:20

Lab File ID: UX962876.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0378	0.0335		0.177	0.200	-11.5	20.0
Isopropyl ether	Ave	0.2403	0.2357		0.0196	0.0200	-1.9	20.0
2-Chloro-1,3-butadiene	Ave	0.3773	0.3993		0.0212	0.0200	5.8	20.0
Tert-butyl ethyl ether	Ave	0.7846	0.7650		0.0195	0.0200	-2.5	20.0
Ethyl acetate	Ave	0.2500	0.2503		0.0401	0.0400	0.2	50.0
Propionitrile	Ave	0.0386	0.0421		0.218	0.200	9.1	20.0
Methacrylonitrile	Ave	0.1638	0.1779		0.217	0.200	8.6	20.0
Tert-amyl methyl ether	Ave	0.7745	0.7664		0.0198	0.0200	-1.1	20.0
n-Butanol	Ave	0.0067	0.0072		0.542	0.500	8.3	20.0
Ethyl acrylate	Ave	0.3245	0.3256		0.0201	0.0200	0.3	20.0
Methyl methacrylate	Ave	0.2285	0.2423		0.0424	0.0400	6.0	20.0
2-Nitropropane	Ave	0.0465	0.0348		0.0299	0.0400	-25.2*	20.0
n-Butyl acetate	Ave	0.4424	0.4233		0.0191	0.0200	-4.3	20.0
1-Chlorohexane	Ave	0.4179	0.3747		0.0179	0.0200	-10.3	20.0
Cyclohexanone	Ave	0.0195	0.0200		0.206	0.200	2.9	20.0
Pentachloroethane	Lin1		0.2876		0.0437	0.0400	9.2	
1,2,3-Trimethylbenzene	Ave	2.609	2.348		0.0180	0.0200	-10.0	20.0
Benzyl chloride	Lin1		0.2385		0.0168	0.0200	-16.2	
1,3,5-Trichlorobenzene	Ave	0.9371	0.7958		0.0170	0.0200	-15.1	20.0
2-Methylnaphthalene	Lin1		0.8419		0.0235	0.0400	-41.3*	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Sample No.: STD8260 240-272388/4 Date Analyzed: 03/29/2017 10:38

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ1044.D Heated Purge: (Y/N) N

Calibration ID: 39174

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		838554	5.04	622679	7.70	302532	9.94
UPPER LIMIT		1677108	5.54	1245358	8.20	605064	10.44
LOWER LIMIT		419277	4.54	311340	7.20	151266	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272388/15		836158	5.04	620506	7.70	304045	9.94
ICV 240-272388/14		897373	5.04	658178	7.70	317428	9.94
CCVIS 240-272768/2		890785	5.04	669824	7.70	315717	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Sample No.: CCVIS 240-272768/2 Date Analyzed: 03/31/2017 10:13

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ1120.D Heated Purge: (Y/N) N

Calibration ID: 39177

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		890785	5.04	669824	7.70	315717	9.94
UPPER LIMIT		1781570	5.54	1339648	8.20	631434	10.44
LOWER LIMIT		445393	4.54	334912	7.20	157859	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-272768/4		887519	5.04	667787	7.70	324823	9.94
CCV 240-272768/3		882286	5.04	665506	7.70	319868	9.94
MB 240-272768/6		867163	5.04	651083	7.70	311097	9.94
240-77337-5	TB-032717	890528	5.04	662975	7.70	318813	9.94
200-37906-B-3 MS		886887	5.04	666352	7.70	324576	9.94
200-37906-B-3 MSD		840604	5.04	636778	7.70	309764	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Sample No.: ICIS 240-253710/11 Date Analyzed: 10/31/2016 14:44

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX959473.D Heated Purge: (Y/N) N

Calibration ID: 36877

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1089945	5.72	845544	8.42	470846	10.66
UPPER LIMIT		2179890	6.22	1691088	8.92	941692	11.16
LOWER LIMIT		544973	5.22	422772	7.92	235423	10.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-253710/22		1016048	5.72	819306	8.42	452555	10.66
ICV 240-253710/23		997454	5.73	808908	8.42	436301	10.65
CCVIS 240-273301/3		975510	5.72	830148	8.41	517880	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Sample No.: CCVIS 240-273301/3 Date Analyzed: 04/04/2017 21:45

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX962875.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		975510	5.72	830148	8.41	517880	10.65
UPPER LIMIT		1951020	6.22	1660296	8.91	1035760	11.15
LOWER LIMIT		487755	5.22	415074	7.91	258940	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-273301/4		962816	5.72	843122	8.41	441273	10.65
LCS 240-273301/5		954429	5.73	820009	8.41	485409	10.65
MB 240-273301/7		916950	5.73	782227	8.41	409867	10.65
240-77337-1	MRC-MW37C-032717	887048	5.74	776362	8.41	412426	10.65
240-77337-2	MRC-SEMW-7I-032717	858535	5.73	750976	8.41	371916	10.65
240-77337-3	MRC-SEMW-8S-032717	877673	5.72	778345	8.41	402152	10.65
240-77337-4	MRC-SEMW-8I-032717	885428	5.72	762798	8.41	401010	10.65
240-77450-A-4 MS		950126	5.73	804526	8.41	471249	10.65
240-77450-A-4 MSD		952439	5.72	842896	8.41	470956	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: A3UX9 Start Date: 10/31/2016 12:14

Analysis Batch Number: 253710 End Date: 10/31/2016 21:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-253710/1		10/31/2016 12:14	1	BFB3479.D	DB-624 0.18(mm)
STD8260 240-253710/8 IC		10/31/2016 13:31	1	UX959470.D	DB-624 0.18(mm)
STD8260 240-253710/9 IC		10/31/2016 13:55	1	UX959471.D	DB-624 0.18(mm)
STD8260 240-253710/10 IC		10/31/2016 14:20	1	UX959472.D	DB-624 0.18(mm)
ICIS 240-253710/11		10/31/2016 14:44	1	UX959473.D	DB-624 0.18(mm)
STD8260 240-253710/12 IC		10/31/2016 15:08	1	UX959474.D	DB-624 0.18(mm)
STD8260 240-253710/13 IC		10/31/2016 15:31	1	UX959475.D	DB-624 0.18(mm)
STDA9 240-253710/15 IC		10/31/2016 16:20	1	UX959477.D	DB-624 0.18(mm)
STDA9 240-253710/16 IC		10/31/2016 16:44	1	UX959478.D	DB-624 0.18(mm)
STDA9 240-253710/17 IC		10/31/2016 17:08	1	UX959479.D	DB-624 0.18(mm)
STDA9 240-253710/18 IC		10/31/2016 17:32	1	UX959480.D	DB-624 0.18(mm)
STDA9 240-253710/19 IC		10/31/2016 17:56	1	UX959481.D	DB-624 0.18(mm)
STDA9 240-253710/20 IC		10/31/2016 18:20	1	UX959482.D	DB-624 0.18(mm)
ICV 240-253710/22		10/31/2016 19:09	1	UX959484.D	DB-624 0.18(mm)
ICV 240-253710/23		10/31/2016 19:33	1	UX959485.D	DB-624 0.18(mm)
MDLV 240-253710/24		10/31/2016 19:57	1		DB-624 0.18(mm)
MDLV 240-253710/25		10/31/2016 20:22	1		DB-624 0.18(mm)
MDLV 240-253710/26		10/31/2016 20:46	1		DB-624 0.18(mm)
ZZZZZ		10/31/2016 21:10	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: A3UX11 Start Date: 03/29/2017 09:21

Analysis Batch Number: 272388 End Date: 03/29/2017 15:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272388/1		03/29/2017 09:21	1	BFB70329.D	DB-624 0.18(mm)
STD8260 240-272388/2 IC		03/29/2017 09:53	1	UXJ1042.D	DB-624 0.18(mm)
STD8260 240-272388/3 IC		03/29/2017 10:15	1	UXJ1043.D	DB-624 0.18(mm)
STD8260 240-272388/4 ICIS		03/29/2017 10:38	1	UXJ1044.D	DB-624 0.18(mm)
STD8260 240-272388/5 IC		03/29/2017 11:01	1	UXJ1045.D	DB-624 0.18(mm)
STD8260 240-272388/6 IC		03/29/2017 11:24	1	UXJ1046.D	DB-624 0.18(mm)
STD8260 240-272388/7 IC		03/29/2017 11:46	1	UXJ1047.D	DB-624 0.18(mm)
STD6 240-272388/8 IC		03/29/2017 12:31	1		DB-624 0.18(mm)
STD5 240-272388/9 IC		03/29/2017 12:54	1		DB-624 0.18(mm)
STD4 240-272388/10 IC		03/29/2017 13:16	1		DB-624 0.18(mm)
STD3 240-272388/11 IC		03/29/2017 13:39	1		DB-624 0.18(mm)
STD2 240-272388/12 IC		03/29/2017 14:02	1		DB-624 0.18(mm)
STD1 240-272388/13 IC		03/29/2017 14:24	1		DB-624 0.18(mm)
ICV 240-272388/15		03/29/2017 14:47	1	UXJ1055.D	DB-624 0.18(mm)
ICV 240-272388/14		03/29/2017 15:09	1	UXJ1056.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: A3UX11 Start Date: 03/31/2017 09:45

Analysis Batch Number: 272768 End Date: 03/31/2017 20:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272768/1		03/31/2017 09:45	1	BFB70331.D	DB-624 0.18(mm)
CCVIS 240-272768/2		03/31/2017 10:13	1	UXJ1120.D	DB-624 0.18(mm)
LCS 240-272768/4		03/31/2017 10:35	1	UXJ1121.D	DB-624 0.18(mm)
CCV 240-272768/3		03/31/2017 10:58	1	UXJ1122.D	DB-624 0.18(mm)
ZZZZZ		03/31/2017 11:21	1		DB-624 0.18(mm)
MB 240-272768/6		03/31/2017 11:44	1	UXJ1124.D	DB-624 0.18(mm)
ZZZZZ		03/31/2017 12:07	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 12:29	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 12:52	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 13:15	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 13:38	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 14:00	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 14:23	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 14:46	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:09	3.33		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:31	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:54	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 16:17	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 16:40	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:02	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:25	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:48	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 18:10	1		DB-624 0.18(mm)
240-77337-5		03/31/2017 18:33	1	UXJ1142.D	DB-624 0.18(mm)
ZZZZZ		03/31/2017 18:56	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 19:18	1		DB-624 0.18(mm)
200-37906-B-3 MS		03/31/2017 19:41	3.33	UXJ1145.D	DB-624 0.18(mm)
200-37906-B-3 MSD		03/31/2017 20:04	3.33	UXJ1146.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: A3UX9 Start Date: 04/04/2017 21:18

Analysis Batch Number: 273301 End Date: 04/05/2017 07:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-273301/2		04/04/2017 21:18	1	BFB3616.D	DB-624 0.18(mm)
CCVIS 240-273301/3		04/04/2017 21:45	1	UX962875.D	DB-624 0.18(mm)
CCV 240-273301/4		04/04/2017 22:09	1	UX962876.D	DB-624 0.18(mm)
LCS 240-273301/5		04/04/2017 22:31	1	UX962877.D	DB-624 0.18(mm)
MDLV 240-273301/6		04/04/2017 22:55	1		DB-624 0.18(mm)
MB 240-273301/7		04/04/2017 23:19	1	UX962879.D	DB-624 0.18(mm)
ZZZZZ		04/04/2017 23:43	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 00:07	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 00:31	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 00:55	1		DB-624 0.18(mm)
240-77337-1		04/05/2017 01:19	1	UX962884.D	DB-624 0.18(mm)
240-77337-2		04/05/2017 01:42	1000	UX962885.D	DB-624 0.18(mm)
240-77337-3		04/05/2017 02:06	2000	UX962886.D	DB-624 0.18(mm)
240-77337-4		04/05/2017 02:30	100	UX962887.D	DB-624 0.18(mm)
ZZZZZ		04/05/2017 02:54	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 03:18	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 03:42	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 04:06	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 04:31	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 04:54	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 05:18	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 05:41	100		DB-624 0.18(mm)
ZZZZZ		04/05/2017 06:05	100		DB-624 0.18(mm)
ZZZZZ		04/05/2017 06:29	100		DB-624 0.18(mm)
ZZZZZ		04/05/2017 06:53	100		DB-624 0.18(mm)
240-77450-A-4 MS		04/05/2017 07:17	100	UX962899.D	DB-624 0.18(mm)
240-77450-A-4 MSD		04/05/2017 07:41	100	UX962900.D	DB-624 0.18(mm)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW37C-032717	240-77337-1	91
MRC-SEMW-7I-032717	240-77337-2	91
MRC-SEMW-8S-032717	240-77337-3	84
MRC-SEMW-8I-032717	240-77337-4	89
	MB 200-115337/1-A	87
	LCS 200-115337/2-A	95
	LCSD 200-115337/3-A	95

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24533_26.D

Lab ID: LCS 200-115337/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	1.98	99	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24533_27.D

Lab ID: LCSD 200-115337/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	2.00	1.93	96	3	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Lab File ID: Z24533_28.D Lab Sample ID: MB 200-115337/1-A

Matrix: Water Date Extracted: 03/30/2017 19:30

Instrument ID: CHZ.i Date Analyzed: 03/31/2017 21:25

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-115337/2-A	Z24533_26.D	03/31/2017 20:51
	LCSD 200-115337/3-A	Z24533_27.D	03/31/2017 21:08
MRC-MW37C-032717	240-77337-1	Z24541_10.D	04/03/2017 10:35
MRC-SEMW-7I-032717	240-77337-2	Z24541_11.D	04/03/2017 10:52
MRC-SEMW-8S-032717	240-77337-3	Z24541_13.D	04/03/2017 11:26
MRC-SEMW-8I-032717	240-77337-4	Z24541_14.D	04/03/2017 11:43

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77337-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-115337/1-A

Matrix: Water | Lab File ID: Z24533_28.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 03/30/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 03/31/2017 21:25

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115364 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	87		46-130

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Lab File ID: Z24230_01.D BFB Injection Date: 03/08/2017

Instrument ID: CHZ.i BFB Injection Time: 10:08

Analysis Batch No.: 114713

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 80.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.3	
175	5.0 - 9.0 % of mass 174	4.9	(7.2) 1
176	>95.0 but <101.0 % of mass 174	66.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-114713/2	Z24230_02.D	03/08/2017	10:20
	IC 200-114713/3	Z24230_03.D	03/08/2017	10:37
	IC 200-114713/4	Z24230_04.D	03/08/2017	10:54
	ICIS 200-114713/5	Z24230_05.D	03/08/2017	11:12
	IC 200-114713/6	Z24230_06.D	03/08/2017	11:29
	IC 200-114713/7	Z24230_07.D	03/08/2017	11:46
	IC 200-114713/8	Z24230_08.D	03/08/2017	12:03
	ICV 200-114713/9	Z24230_09.D	03/08/2017	12:21

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-77337-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-77337-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	2773 110705	6218 242998	14480	27995	48146	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	134256 141434	151964 143621	134009	136068	115570	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 200-114713/9 Calibration Date: 03/08/2017 12:21

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_09.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5752	0.0500	184	200	-7.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Lab File ID: Z24401_03.D BFB Injection Date: 03/22/2017

Instrument ID: CHZ.i BFB Injection Time: 15:37

Analysis Batch No.: 115085

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 80.0 % of mass 95	45.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	80.7	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	>95.0 but <101.0 % of mass 174	77.4	(95.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVL 200-115085/4	Z24401_04.D	03/22/2017	15:48
	CCV 200-115364/25	Z24533_25.D	03/31/2017	20:34
	LCS 200-115337/2-A	Z24533_26.D	03/31/2017	20:51
	LCSD 200-115337/3-A	Z24533_27.D	03/31/2017	21:08
	MB 200-115337/1-A	Z24533_28.D	03/31/2017	21:25
	CCV 200-115364/39	Z24533_39.D	04/01/2017	00:32
	CCVL 200-115381/1	Z24541_01.D	04/03/2017	07:51
MRC-MW37C-032717	240-77337-1	Z24541_10.D	04/03/2017	10:35
MRC-SEMW-7I-032717	240-77337-2	Z24541_11.D	04/03/2017	10:52
	CCV 200-115381/12	Z24541_12.D	04/03/2017	11:09
MRC-SEMW-8S-032717	240-77337-3	Z24541_13.D	04/03/2017	11:26
MRC-SEMW-8I-032717	240-77337-4	Z24541_14.D	04/03/2017	11:43
	CCV 200-115381/15	Z24541_15.D	04/03/2017	12:11

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCVL 200-115085/4 Calibration Date: 03/22/2017 15:48

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_04.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7735	0.0500	12.4	10.0	23.9	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6057	0.0500	502	500	0.3	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCV 200-115364/25 Calibration Date: 03/31/2017 20:34

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24533_25.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7116	0.0500	912	800	13.9	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7535	0.0500	624	500	24.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCV 200-115364/39 Calibration Date: 04/01/2017 00:32

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24533_39.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7166	0.0500	115	100	14.7	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7422	0.0500	615	500	22.9	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCVL 200-115381/1 Calibration Date: 04/03/2017 07:51

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24541_01.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7725	0.0500	12.4	10.0	23.7	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6986	0.0500	579	500	15.7	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCV 200-115381/12 Calibration Date: 04/03/2017 11:09

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24541_12.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6975	0.0500	112	100	11.7	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6975	0.0500	578	500	15.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCV 200-115381/15 Calibration Date: 04/03/2017 12:11

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24541_15.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6961	0.0500	892	800	11.5	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7279	0.0500	603	500	20.6	30.0

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-114713/1		03/08/2017 10:08	1	Z24230_01.D	Rxi-5ms 0.25(mm)
IC 200-114713/2		03/08/2017 10:20	1	Z24230_02.D	Rxi-5ms 0.25(mm)
IC 200-114713/3		03/08/2017 10:37	1	Z24230_03.D	Rxi-5ms 0.25(mm)
IC 200-114713/4		03/08/2017 10:54	1	Z24230_04.D	Rxi-5ms 0.25(mm)
ICIS 200-114713/5		03/08/2017 11:12	1	Z24230_05.D	Rxi-5ms 0.25(mm)
IC 200-114713/6		03/08/2017 11:29	1	Z24230_06.D	Rxi-5ms 0.25(mm)
IC 200-114713/7		03/08/2017 11:46	1	Z24230_07.D	Rxi-5ms 0.25(mm)
IC 200-114713/8		03/08/2017 12:03	1	Z24230_08.D	Rxi-5ms 0.25(mm)
ICV 200-114713/9		03/08/2017 12:21	1	Z24230_09.D	Rxi-5ms 0.25(mm)
CCVL 200-114713/10		03/08/2017 13:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 13:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:43	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:02	1		Rxi-5ms 0.25(mm)
CCV 200-114713/23		03/08/2017 17:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:07	1		Rxi-5ms 0.25(mm)
CCV 200-114713/37		03/08/2017 21:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:42	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/09/2017 00:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:17	1		Rxi-5ms 0.25(mm)
CCV 200-114713/48		03/09/2017 00:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:51	1		Rxi-5ms 0.25(mm)
CCV 200-114713/50		03/09/2017 01:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:34	1		Rxi-5ms 0.25(mm)
CCV 200-114713/54		03/09/2017 09:50	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/22/2017 15:37

Analysis Batch Number: 115085 End Date: 03/23/2017 09:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-115085/3		03/22/2017 15:37	1	Z24401_03.D	Rxi-5ms 0.25(mm)
CCVL 200-115085/4		03/22/2017 15:48	1	Z24401_04.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:12	1		Rxi-5ms 0.25(mm)
CCV 200-115085/17		03/22/2017 19:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:09	1		Rxi-5ms 0.25(mm)
CCV 200-115085/31		03/22/2017 23:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:50	1		Rxi-5ms 0.25(mm)
CCV 200-115085/37		03/23/2017 01:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 08:57	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 09:13	2		Rxi-5ms 0.25(mm)
CCV 200-115085/40		03/23/2017 09:30	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/31/2017 13:46

Analysis Batch Number: 115364 End Date: 04/01/2017 03:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-115364/1		03/31/2017 13:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 14:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 14:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 14:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 14:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 15:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 15:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 15:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 16:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 16:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 16:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 16:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 17:11	1		Rxi-5ms 0.25(mm)
CCV 200-115364/14		03/31/2017 17:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 17:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 18:02	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 18:19	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 18:36	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 18:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 19:10	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 19:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 19:43	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 20:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 20:17	1		Rxi-5ms 0.25(mm)
CCV 200-115364/25		03/31/2017 20:34	1	Z24533_25.D	Rxi-5ms 0.25(mm)
LCS 200-115337/2-A		03/31/2017 20:51	1	Z24533_26.D	Rxi-5ms 0.25(mm)
LCSD 200-115337/3-A		03/31/2017 21:08	1	Z24533_27.D	Rxi-5ms 0.25(mm)
MB 200-115337/1-A		03/31/2017 21:25	1	Z24533_28.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 21:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 21:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 22:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 22:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 22:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 23:07	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 23:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 23:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/31/2017 23:58	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/01/2017 00:15	1		Rxi-5ms 0.25(mm)
CCV 200-115364/39		04/01/2017 00:32	1	Z24533_39.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/01/2017 00:49	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/01/2017 01:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/01/2017 01:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/01/2017 01:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/01/2017 01:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/01/2017 02:14	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/31/2017 13:46

Analysis Batch Number: 115364 End Date: 04/01/2017 03:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/01/2017 02:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/01/2017 02:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/01/2017 03:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/01/2017 03:22	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/03/2017 07:51

Analysis Batch Number: 115381 End Date: 04/03/2017 12:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-115381/1		04/03/2017 07:51	1	Z24541_01.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/03/2017 08:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/03/2017 08:37	3.3		Rxi-5ms 0.25(mm)
ZZZZZ		04/03/2017 08:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/03/2017 09:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/03/2017 09:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/03/2017 09:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/03/2017 10:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/03/2017 10:18	1		Rxi-5ms 0.25(mm)
240-77337-1		04/03/2017 10:35	1	Z24541_10.D	Rxi-5ms 0.25(mm)
240-77337-2		04/03/2017 10:52	1	Z24541_11.D	Rxi-5ms 0.25(mm)
CCV 200-115381/12		04/03/2017 11:09	1	Z24541_12.D	Rxi-5ms 0.25(mm)
240-77337-3		04/03/2017 11:26	1	Z24541_13.D	Rxi-5ms 0.25(mm)
240-77337-4		04/03/2017 11:43	1	Z24541_14.D	Rxi-5ms 0.25(mm)
CCV 200-115381/15		04/03/2017 12:11	1	Z24541_15.D	Rxi-5ms 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-77337-1

SDG No.:

Batch Number: 115337 Batch Start Date: 03/30/17 19:30 Batch Analyst: Keith, Robert C

Batch Method: 3535A Batch End Date: 03/30/17 20:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00026		
MB 200-115337/1		3535A, 522		100 mL	2000 uL		100 uL		
LCS 200-115337/2		3535A, 522		100 mL	2000 uL	100 uL	100 uL		
LCSD 200-115337/3		3535A, 522		100 mL	2000 uL	100 uL	100 uL		
240-77337-D-1	MRC-MW37C-032717	3535A, 522	T	100 mL	2000 uL		100 uL		
240-77337-E-2	MRC-SEMW-7I-032717	3535A, 522	T	100 mL	2000 uL		100 uL		
240-77337-E-3	MRC-SEMW-8S-032717	3535A, 522	T	100 mL	2000 uL		100 uL		
240-77337-E-4	MRC-SEMW-8I-032717	3535A, 522	T	100 mL	2000 uL		100 uL		

Batch Notes	
Acid ID	1018022
Acid Name	HCl
First End time	2015
Analyst ID - Reagent Drop Witness	BDL
Solvent Lot #	1023323
Solvent Name	MeCl2
SPE Cartridge ID	8088705
First Start time	1930

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	13CDCB #
MRC-MW37C-032717	240-77337-1	145 X
MRC-SEMW-7I-032717	240-77337-2	82
MRC-SEMW-8S-032717	240-77337-3	68
MRC-SEMW-8I-032717	240-77337-4	78
	MB 680-475231/9-A	84
	LCS 680-475231/10-A	95
MRC-MW37C-032717 MS	240-77337-1 MS	154 X
MRC-MW37C-032717 MSD	240-77337-1 MSD	164 X

	QC LIMITS
13CDCB = Decachlorobiphenyl-13C12	25-113

Column to be used to flag recovery values

FORM II 680

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xd1413.D

Lab ID: LCS 680-475231/10-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	5.47	91	62-130	
Hexachlorobiphenyl	4.00	3.49	87	62-130	
Nonachlorobiphenyl	10.0	17.5	175	70-195	
Octachlorobiphenyl	6.00	5.50	92	64-130	
Monochlorobiphenyl	2.00	1.58	79	42-130	
DCB Decachlorobiphenyl	10.0	9.37	94	59-130	
Dichlorobiphenyl	2.00	1.63	81	49-130	
Pentachlorobiphenyl	4.00	3.54	88	63-130	
Tetrachlorobiphenyl	4.00	3.36	84	54-130	
Trichlorobiphenyl	2.00	1.70	85	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xd1414.D

Lab ID: 240-77337-1 MS Client ID: MRC-MW37C-032717 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	0.060 U	8.54	142	62-130	F1
Hexachlorobiphenyl	4.00	0.030 U	5.56	139	62-130	F1
Nonachlorobiphenyl	10.0	0.098 U	27.6	276	70-195	F1
Octachlorobiphenyl	6.00	0.076 U	8.91	149	64-130	F1
Monochlorobiphenyl	2.00	0.011 U	2.42	121	42-130	
DCB Decachlorobiphenyl	10.0	0.14 U	15.1	151	59-130	F1
Dichlorobiphenyl	2.00	0.011 U	2.60	130	49-130	
Pentachlorobiphenyl	4.00	0.028 U	5.66	141	63-130	F1
Tetrachlorobiphenyl	4.00	0.026 U	5.65	141	54-130	F1
Trichlorobiphenyl	2.00	0.013 U	2.72	136	51-130	F1

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xd1415.D

Lab ID: 240-77337-1 MSD Client ID: MRC-MW37C-032717 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Heptachlorobiphenyl	5.71	8.70	153	2	40	62-130	F1
Hexachlorobiphenyl	3.80	5.56	146	0	40	62-130	F1
Nonachlorobiphenyl	9.51	27.9	293	1	40	70-195	F1
Octachlorobiphenyl	5.71	9.18	161	3	40	64-130	F1
Monochlorobiphenyl	1.90	2.44	128	1	40	42-130	
DCB Decachlorobiphenyl	9.51	15.1	158	0	40	59-130	F1
Dichlorobiphenyl	1.90	2.59	136	1	40	49-130	F1
Pentachlorobiphenyl	3.80	5.72	150	1	40	63-130	F1
Tetrachlorobiphenyl	3.80	5.36	141	5	40	54-130	F1
Trichlorobiphenyl	1.90	2.70	142	1	40	51-130	F1

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Lab File ID: xd1412.D Lab Sample ID: MB 680-475231/9-A

Matrix: Water Date Extracted: 04/07/2017 14:58

Instrument ID: CMSX Date Analyzed: 04/14/2017 13:32

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-475231/10-A	xd1413.D	04/14/2017 14:01
MRC-MW37C-032717 MS	240-77337-1 MS	xd1414.D	04/14/2017 14:29
MRC-MW37C-032717 MSD	240-77337-1 MSD	xd1415.D	04/14/2017 14:58
MRC-MW37C-032717	240-77337-1	xd1416.D	04/14/2017 15:27
MRC-SEMW-7I-032717	240-77337-2	xd1417.D	04/14/2017 15:56
MRC-SEMW-8S-032717	240-77337-3	xd1418.D	04/14/2017 16:25
MRC-SEMW-8I-032717	240-77337-4	xd1419.D	04/14/2017 16:53

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77337-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-475231/9-A

Matrix: Water | Lab File ID: xd1412.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 04/07/2017 14:58

Sample wt/vol: 1000(mL) | Date Analyzed: 04/14/2017 13:32

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 476005 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.0054	U	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0065	U	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	84		25-113

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Lab File ID: xd1402.D DFTPP Injection Date: 04/14/2017

Instrument ID: CMSX DFTPP Injection Time: 08:39

Analysis Batch No.: 476005

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	55.0
197	Less than 1 % of mass 198	0.7
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.4
275	10 - 30% of mass 198	28.2
365	Greater than 1% of mass 198	5.1
441	Present but less than mass 443	6.4 (39.4) 2
442	Greater than 40% of mass 198	87.3
443	17 - 23% of mass 442	16.1 (18.5) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-476005/2	xd1403.D	04/14/2017	09:10
	IC 680-476005/4	xd1405.D	04/14/2017	10:10
	IC 680-476005/5	xd1406.D	04/14/2017	10:39
	IC 680-476005/6	xd1407.D	04/14/2017	11:08
	IC 680-476005/7	xd1408.D	04/14/2017	11:36
	ICIS 680-476005/23	xd1409.D	04/14/2017	12:05
	ICV 680-476005/8	xd1410.D	04/14/2017	12:34
	MB 680-475231/9-A	xd1412.D	04/14/2017	13:32
	LCS 680-475231/10-A	xd1413.D	04/14/2017	14:01
MRC-MW37C-032717 MS	240-77337-1 MS	xd1414.D	04/14/2017	14:29
MRC-MW37C-032717 MSD	240-77337-1 MSD	xd1415.D	04/14/2017	14:58
MRC-MW37C-032717	240-77337-1	xd1416.D	04/14/2017	15:27
MRC-SEMW-7I-032717	240-77337-2	xd1417.D	04/14/2017	15:56
MRC-SEMW-8S-032717	240-77337-3	xd1418.D	04/14/2017	16:25
MRC-SEMW-8I-032717	240-77337-4	xd1419.D	04/14/2017	16:53
	CCV 680-476005/22	xd1424.D	04/14/2017	19:17

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-77337-1 Analy Batch No.: 476005

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/14/2017 10:10 Calibration End Date: 04/14/2017 12:05 Calibration ID: 51808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-476005/7	xd1408.D
Level 2	IC 680-476005/6	xd1407.D
Level 3	ICIS 680-476005/23	xd1409.D
Level 4	IC 680-476005/5	xd1406.D
Level 5	IC 680-476005/4	xd1405.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.7495	0.6443	0.6598	0.7450	0.7100	Ave		0.7017				6.9		20.0			
Dichlorobiphenyl	0.5516	0.4767	0.4878	0.5531	0.5443	Ave		0.5227				7.1		20.0			
Trichlorobiphenyl	0.3741	0.3519	0.3529	0.3890	0.3888	Ave		0.3713				4.9		20.0			
PCB-104			0.3265			Ave		0.3265						30.0			
Tetrachlorobiphenyl	0.2803	0.2586	0.2561	0.2834	0.2806	Ave		0.2718				4.9		20.0			
Pentachlorobiphenyl	0.2420	0.2193	0.2239	0.2414	0.2474	Ave		0.2348				5.3		20.0			
PCB-77			0.4094			Ave		0.4094						30.0			
Hexachlorobiphenyl	0.2535	0.2260	0.2333	0.2405	0.2456	Ave		0.2397				4.4		20.0			
Heptachlorobiphenyl	0.2188	0.1999	0.2010	0.2198	0.2170	Ave		0.2113				4.7		20.0			
Octachlorobiphenyl	0.2004	0.1857	0.1874	0.1948	0.2065	Ave		0.1950				4.5		20.0			
PCB-208			0.0788			Ave		0.0788						30.0			
Nonachlorobiphenyl			0.0630			Ave		0.0419				3.0		20.0			
DCB Decachlorobiphenyl	0.0427	0.0423	0.0434	0.0402	0.0411	Ave		0.0419				3.0		20.0			
gamma-BHC-13C6 (Surr)	0.1567	0.1496	0.1501	0.1704	0.1227	Ave		0.1499				11.6		50.0			
Decachlorobiphenyl-13C12	0.0504	0.0541	0.0567	0.0535	0.0544	Ave		0.0538				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
PCBS CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICV 680-476005/8 Calibration Date: 04/14/2017 12:34

Instrument ID: CMSX Calib Start Date: 04/14/2017 10:10

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 04/14/2017 12:05

Lab File ID: xd1410.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7017	0.6294		0.897	1.00	-10.3	20.0
Dichlorobiphenyl	Ave	0.5227	0.4524		0.866	1.00	-13.4	20.0
Trichlorobiphenyl	Ave	0.3713	0.3752		1.01	1.00	1.0	20.0
Tetrachlorobiphenyl	Ave	0.2718	0.2626		1.93	2.00	-3.4	20.0
Pentachlorobiphenyl	Ave	0.2348	0.2231		1.90	2.00	-5.0	20.0
Hexachlorobiphenyl	Ave	0.2397	0.2234		1.86	2.00	-6.8	20.0
Heptachlorobiphenyl	Ave	0.2113	0.2055		2.92	3.00	-2.8	20.0
Octachlorobiphenyl	Ave	0.1950	0.1918		2.95	3.00	-1.6	20.0
Nonachlorobiphenyl	Ave	0.0630	0.0767		7.32	4.00	21.8*	20.0
DCB Decachlorobiphenyl	Ave	0.0419	0.0426		5.07	5.00	1.5	20.0
Decachlorobiphenyl-13C12	Ave	0.0538	0.0552		5.12	5.00	2.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Lab Sample ID: CCV 680-476005/22 Calibration Date: 04/14/2017 19:17

Instrument ID: CMSX Calib Start Date: 04/14/2017 10:10

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 04/14/2017 12:05

Lab File ID: xd1424.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7017	0.6513		0.928	1.00	-7.2	20.0
Dichlorobiphenyl	Ave	0.5227	0.4771		0.913	1.00	-8.7	20.0
Trichlorobiphenyl	Ave	0.3713	0.3494		0.941	1.00	-5.9	20.0
Tetrachlorobiphenyl	Ave	0.2718	0.2482		1.83	2.00	-8.7	20.0
Pentachlorobiphenyl	Ave	0.2348	0.2230		1.90	2.00	-5.0	20.0
Hexachlorobiphenyl	Ave	0.2397	0.2233		1.86	2.00	-6.9	20.0
Heptachlorobiphenyl	Ave	0.2113	0.1990		2.83	3.00	-5.8	20.0
Octachlorobiphenyl	Ave	0.1950	0.1823		2.81	3.00	-6.5	20.0
Nonachlorobiphenyl	Ave	0.0630	0.0741		7.07	4.00	17.7	20.0
DCB Decachlorobiphenyl	Ave	0.0419	0.0393		4.69	5.00	-6.3	20.0
gamma-BHC-13C6 (Surr)	Ave	0.1499	0.1460		1.95	2.00	-2.6	50.0
Decachlorobiphenyl-13C12	Ave	0.0538	0.0536		4.98	5.00	-0.5	20.0

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Sample No.: ICIS 680-476005/23 Date Analyzed: 04/14/2017 12:05

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm)

Lab File ID (Standard): xd1409.D Heated Purge: (Y/N) N

Calibration ID: 51808

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		41169	10.02	47440	16.11		
UPPER LIMIT		61754	10.52	71160	16.61		
LOWER LIMIT		20585	9.52	23720	15.61		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-476005/8		37243	10.02	41792	16.11		
MB 680-475231/9-A		45090	10.02	54249	16.11		
LCS 680-475231/10-A		39852	10.02	43180	16.11		
240-77337-1 MS	MRC-MW37C-032717 MS	45420	10.02	55927	16.10		
240-77337-1 MSD	MRC-MW37C-032717 MSD	43724	10.02	52404	16.10		
240-77337-1	MRC-MW37C-032717	47923	10.02	61152	16.11		
240-77337-2	MRC-SEMW-7I-032717	44689	10.02	56597	16.11		
240-77337-3	MRC-SEMW-8S-032717	43496	10.02	55460	16.11		
240-77337-4	MRC-SEMW-8I-032717	45056	10.02	56468	16.11		
CCV 680-476005/22		43003	10.02	50680	16.11		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Instrument ID: CMSX Start Date: 04/14/2017 08:39

Analysis Batch Number: 476005 End Date: 04/14/2017 19:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 680-476005/1		04/14/2017 08:39	1	xd1402.D	HP-5MS 0.25(mm)
WDM 680-476005/2		04/14/2017 09:10	1	xd1403.D	HP-5MS 0.25(mm)
IC 680-476005/4		04/14/2017 10:10	1	xd1405.D	HP-5MS 0.25(mm)
IC 680-476005/5		04/14/2017 10:39	1	xd1406.D	HP-5MS 0.25(mm)
IC 680-476005/6		04/14/2017 11:08	1	xd1407.D	HP-5MS 0.25(mm)
IC 680-476005/7		04/14/2017 11:36	1	xd1408.D	HP-5MS 0.25(mm)
ICIS 680-476005/23		04/14/2017 12:05	1	xd1409.D	HP-5MS 0.25(mm)
ICV 680-476005/8		04/14/2017 12:34	1	xd1410.D	HP-5MS 0.25(mm)
MB 680-475231/9-A		04/14/2017 13:32	1	xd1412.D	HP-5MS 0.25(mm)
LCS 680-475231/10-A		04/14/2017 14:01	1	xd1413.D	HP-5MS 0.25(mm)
240-77337-1 MS		04/14/2017 14:29	1	xd1414.D	HP-5MS 0.25(mm)
240-77337-1 MSD		04/14/2017 14:58	1	xd1415.D	HP-5MS 0.25(mm)
240-77337-1		04/14/2017 15:27	1	xd1416.D	HP-5MS 0.25(mm)
240-77337-2		04/14/2017 15:56	1	xd1417.D	HP-5MS 0.25(mm)
240-77337-3		04/14/2017 16:25	1	xd1418.D	HP-5MS 0.25(mm)
240-77337-4		04/14/2017 16:53	1	xd1419.D	HP-5MS 0.25(mm)
ZZZZZ		04/14/2017 17:22	1		HP-5MS 0.25(mm)
ZZZZZ		04/14/2017 17:51	1		HP-5MS 0.25(mm)
ZZZZZ		04/14/2017 18:20	1		HP-5MS 0.25(mm)
ZZZZZ		04/14/2017 18:49	1		HP-5MS 0.25(mm)
CCV 680-476005/22		04/14/2017 19:17	1	xd1424.D	HP-5MS 0.25(mm)

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Batch Number: 475231 Batch Start Date: 04/07/17 14:58 Batch Analyst: Wilson, Charles E

Batch Method: 680 Batch End Date: 04/08/17 09:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH
240-77337-F-1	MRC-MW37C-032717	680, 680	T	7 SU			500.3 mL	1 mL	7 SU
240-77337-H-2	MRC-SEMW-7I-032717	680, 680	T	7 SU	1472.0 g	498.1 g	973.9 mL	1 mL	7 SU
240-77337-G-3	MRC-SEMW-8S-032717	680, 680	T	6 SU	1546.2 g	501.5 g	1044.7 mL	1 mL	6 SU
240-77337-G-4	MRC-SEMW-8I-032717	680, 680	T	7 SU	1451.8 g	496.8 g	955 mL	1 mL	7 SU
MB 680-475231/9		680, 680		7 SU			1000 mL	1 mL	7 SU
LCS 680-475231/10		680, 680		7 SU			1000 mL	1 mL	7 SU
240-77337-G-1 MS	MRC-MW37C-032717	680, 680	T	7 SU			500.1 mL	1 mL	7 SU
240-77337-G-1 MSD	MRC-MW37C-032717	680, 680	T	7 SU	1019.2 g	493.5 g	525.7 mL	1 mL	7 SU

Lab Sample ID	Client Sample ID	Method Chain	Basis	ResidualChloCheck	680wkSPIKE00108	680wkSURR-NEW00017			
240-77337-F-1	MRC-MW37C-032717	680, 680	T	N		0.5 mL			
240-77337-H-2	MRC-SEMW-7I-032717	680, 680	T	N		1 mL			
240-77337-G-3	MRC-SEMW-8S-032717	680, 680	T	N		1 mL			
240-77337-G-4	MRC-SEMW-8I-032717	680, 680	T	N		1 mL			
MB 680-475231/9		680, 680		N		1 mL			
LCS 680-475231/10		680, 680		N	1 mL	1 mL			
240-77337-G-1 MS	MRC-MW37C-032717	680, 680	T	N	0.5 mL	0.5 mL			
240-77337-G-1 MSD	MRC-MW37C-032717	680, 680	T	N	0.5 mL	0.5 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-77337-1

SDG No.:

Batch Number: 475231 Batch Start Date: 04/07/17 14:58 Batch Analyst: Wilson, Charles E

Batch Method: 680 Batch End Date: 04/08/17 09:00

Batch Notes	
Balance ID	23
Batch Comment	680 box M680-101
Concentration End Time	1148
Concentration Start Time	1056
Analyst ID - Concentration	RKL
Exchange Solvent ID	5004301
Exchange Solvent Name	Hexanes
Exchange Solvent Volume Used	1 mL
Extraction 1 End Time	0900
Extraction 1 Start Time	1458
pH Paper ID	4785212 4961266 4923424
Pipette ID	AA02G
Prep Solvent ID	5016045
Prep Solvent Name	MeCL2
Prep Solvent Volume Used	70 mL
Person's name who did the prep	CEW
Analyst ID - Reagent Drop Witness	CEW/JC
Residual Chlorine Indicator ID	4852916
Analyst ID - Spike Analyst	CEW
Analyst ID - Spike Witness Analyst	JC
Sufficient volume for MS/MSD?	Yes
Vial ID	84873

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-77337-1

SDG No.:

Project: MRC 2017 GW

Client Sample ID	Lab Sample ID
MRC-SEMW-7I-032717	240-77337-2
MRC-SEMW-8S-032717	240-77337-3
MRC-SEMW-8I-032717	240-77337-4

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00189

Analyte	ICV 240-272731/7 03/30/2017 12:05				CCV 240-272731/98 03/30/2017 18:35				CCV 240-272731/110 03/30/2017 19:26			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	50.4		50.0	101	50.8		50.0	102
Arsenic	41.0		40.0	102	50.1		50.0	100	50.1		50.0	100
Barium	39.5		40.0	99	52.5		50.0	105	51.4		50.0	103
Beryllium	40.4		40.0	101	44.8		50.0	90	45.2		50.0	90
Cadmium	41.4		40.0	104	52.1		50.0	104	50.6		50.0	101
Chromium	40.3		40.0	101	50.5		50.0	101	50.9		50.0	102
Cobalt	40.6		40.0	101	50.3		50.0	101	51.5		50.0	103
Copper	40.7		40.0	102	48.5		50.0	97	48.6		50.0	97
Iron	10100		10000	101	12700		12500	101	12800		12500	103
Lead	41.3		40.0	103	51.2		50.0	102	50.9		50.0	102
Manganese	198		200	99	248		250	99	250		250	100
Molybdenum	40.0		40.0	100	50.3		50.0	101	49.4		50.0	99
Nickel	41.1		40.0	103	50.8		50.0	102	51.7		50.0	103
Selenium	42.8		40.0	107	50.1		50.0	100	50.5		50.0	101
Silver	41.1		40.0	103	51.1		50.0	102	50.2		50.0	100
Thallium	40.1		40.0	100	49.5		50.0	99	49.3		50.0	99
Vanadium	40.8		40.0	102	50.5		50.0	101	50.8		50.0	102
Zinc	40.0		40.0	100	49.3		50.0	99	49.4		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00190

Analyte	ICV 240-272731/7 03/30/2017 12:05				CCV 240-272731/86 03/30/2017 17:45							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	50.8		50.0	102				
Arsenic	41.0		40.0	102	49.2		50.0	98				
Barium	39.5		40.0	99	49.7		50.0	99				
Beryllium	40.4		40.0	101	46.2		50.0	92				
Cadmium	41.4		40.0	104	50.0		50.0	100				
Chromium	40.3		40.0	101	51.3		50.0	103				
Cobalt	40.6		40.0	101	52.2		50.0	104				
Copper	40.7		40.0	102	48.3		50.0	97				
Iron	10100		10000	101	12900		12500	104				
Lead	41.3		40.0	103	50.6		50.0	101				
Manganese	198		200	99	252		250	101				
Molybdenum	40.0		40.0	100	49.6		50.0	99				
Nickel	41.1		40.0	103	52.6		50.0	105				
Selenium	42.8		40.0	107	49.1		50.0	98				
Silver	41.1		40.0	103	49.6		50.0	99				
Thallium	40.1		40.0	100	49.0		50.0	98				
Vanadium	40.8		40.0	102	51.6		50.0	103				
Zinc	40.0		40.0	100	47.9		50.0	96				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-272731/9 03/30/2017 12:14				CCVL 240-272731/112 03/30/2017 19:35							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.20		2.00	110	1.96	J	2.00	98				
Arsenic	5.01		5.00	100	4.98	J	5.00	100				
Barium	4.95	J	5.00	99	4.99	J	5.00	100				
Beryllium	0.981	J	1.00	98	0.802	J	1.00	80				
Cadmium	1.06		1.00	106	1.07		1.00	107				
Chromium	2.02		2.00	101	2.08		2.00	104				
Cobalt	1.07		1.00	107	1.10		1.00	110				
Copper	2.06		2.00	103	1.94	J	2.00	97				
Iron	116		100	116	117		100	117				
Lead	1.08		1.00	108	1.12		1.00	112				
Manganese	4.53	J	5.00	91	4.75	J	5.00	95				
Molybdenum	5.04	J	5.00	101	5.09	J	5.00	102				
Nickel	2.22		2.00	111	2.12		2.00	106				
Selenium	5.41		5.00	108	5.31		5.00	106				
Silver	1.04		1.00	104	1.01		1.00	101				
Thallium	1.06		1.00	106	1.01		1.00	101				
Vanadium	4.97	J	5.00	99	5.14		5.00	103				
Zinc	19.0	J	20.0	95	18.4	J	20.0	92				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

ICV Source: MTHgICV_00001_00154 Concentration Units: ug/L

CCV Source: MTHGCALW_01465

Analyte	ICV 240-272575/7-A 03/30/2017 10:49				CCV 240-272575/10-A 03/30/2017 12:33				CCV 240-272575/10-A 03/30/2017 12:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.13		5.00	103	5.40		5.00	108	5.30		5.00	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

ICV Source: MTHgICV_00001_00154 Concentration Units: ug/L

CCV Source: MTHGCALW_01465

Analyte	CCV 240-272575/10-A 03/30/2017 13:20				CCV 240-272575/10-A 03/30/2017 13:40							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.27		5.00	105	5.23		5.00	105				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Method: 7470A Instrument ID: H2

Lab Sample ID: CRA 240-272575/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01465

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.178	J	89	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-272731/8 03/30/2017 12:09		CCB 240-272731/87 03/30/2017 17:50		CCB 240-272731/99 03/30/2017 18:40		CCB 240-272731/111 03/30/2017 19:31	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	1.18	J	0.658	J	0.834	J	0.573	J
Arsenic	5.0	0.49	U	0.49	U	0.49	U	0.49	U
Barium	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Beryllium	1.0	0.053	U	0.053	U	0.0570	J	0.053	U
Cadmium	1.0	0.061	U	0.061	U	0.061	U	0.061	U
Chromium	2.0	0.60	U	0.60	U	0.60	U	0.60	U
Cobalt	1.0	0.021	U	0.0340	J	0.0560	J	0.0420	J
Copper	2.0	0.75	U	0.75	U	0.75	U	0.75	U
Iron	100	16	U	22.1	J	18.8	J	20.2	J
Lead	1.0	0.11	U	0.11	U	0.143	J	0.11	U
Manganese	5.0	1.1	U	1.10	J	1.16	J	1.1	U
Molybdenum	10	0.609	J	0.725	J	0.635	J	0.696	J
Nickel	2.0	0.23	U	0.23	U	0.23	U	0.23	U
Selenium	5.0	0.25	U	0.368	J	0.314	J	0.25	U
Silver	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Thallium	1.0	0.074	U	0.074	U	0.0840	J	0.074	U
Vanadium	5.0	0.23	U	0.23	U	0.23	U	0.23	U
Zinc	20	7.3	U	7.3	U	7.3	U	7.3	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-272575/8-A 03/30/2017 10:51		CCB 240-272575/11-A 03/30/2017 12:35		CCB 240-272575/11-A 03/30/2017 12:59		CCB 240-272575/11-A 03/30/2017 13:22	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-272575/11-A 03/30/2017 13:42							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-272377/1-A

Instrument Code: I10 Batch No.: 272731

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.27	U		6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	0.52	U		6020A
7440-41-7	Beryllium	0.40	U		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.26	U		6020A
7440-50-8	Copper	0.639	J		6020A
7439-89-6	Iron	7.04	J		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	0.25	U		6020A
7440-02-0	Nickel	0.28	U		6020A
7439-92-1	Lead	0.169	J		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	6.2	U		6020A
7440-22-4	Silver	0.030	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-272383/1-A

Instrument Code: H2 Batch No.: 272662

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICSA 240-272731/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.268**	
Arsenic		**0.0690**	
Barium		**0.0220**	
Beryllium		**0.0060**	
Cadmium		**0.137**	
Chromium		**0.669**	
Cobalt		**0.0030**	
Copper		**0.326**	
Iron	**50000**	**50640**	**101**
Lead		**0.119**	
Manganese		**-0.499**	
Molybdenum	**1000**	**1033**	**103**
Nickel		**0.0380**	
Selenium		**0.0860**	
Silver		**0.0110**	
Thallium		**-0.0020**	
Vanadium		**0.0570**	
Zinc		**-2.54**	
Aluminum	*50000*	*51172*	*102*
Boron		*1.23*	
Calcium	*50000*	*51499*	*103*
Lithium		*0.156*	
Magnesium	*50000*	*51006*	*102*
Potassium	*50000*	*50013*	*100*
Sodium	*50000*	*50845*	*102*
Strontium		*0.310*	
Tin		*0.337*	
Titanium	*1000*	*997*	*100*
Tungsten		*0.669*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Lab Sample ID: ICSAB 240-272731/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00075

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**96.2**	**96**
Arsenic	**100**	**98.8**	**99**
Barium	**100**	**101**	**101**
Beryllium	**100**	**103**	**103**
Cadmium	**100**	**101**	**101**
Chromium	**100**	**104**	**104**
Cobalt	**100**	**103**	**103**
Copper	**100**	**98.5**	**98**
Iron	**50000**	**51645**	**103**
Lead	**100**	**105**	**105**
Manganese	**100**	**102**	**102**
Molybdenum	**1100**	**1144**	**104**
Nickel	**100**	**103**	**103**
Selenium	**100**	**102**	**102**
Silver	**100**	**93.3**	**93**
Thallium	**100**	**105**	**105**
Vanadium	**100**	**102**	**102**
Zinc	**100**	**99.9**	**100**
Aluminum	*50000*	*51922*	*104*
Boron	*100*	*101*	*101*
Calcium	*50000*	*51558*	*103*
Lithium	*100*	*106*	*106*
Magnesium	*50000*	*52245*	*104*
Potassium	*50000*	*50623*	*101*
Sodium	*50000*	*51937*	*104*
Strontium	*100*	*99.7*	*100*
Tin	*100*	*95.6*	*96*
Titanium	*1100*	*1120*	*102*
Tungsten	*100*	*103*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77315-E-1-D MS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	96.4		1.6	J	100	95	75-125		6020A
Arsenic	960		0.53	J	1000	96	75-125		6020A
Barium	1070		72		1000	100	75-125		6020A
Beryllium	867		0.40	U	1000	87	75-125		6020A
Cadmium	1030		0.31	U	1000	103	75-125		6020A
Cobalt	1050		0.37	J	1000	105	75-125		6020A
Chromium	1030		7.2		1000	102	75-125		6020A
Copper	983		0.37	J	1000	98	75-125		6020A
Iron	10100		23	J	10000	101	75-125		6020A
Molybdenum	99.0		0.83	J	100	98	75-125		6020A
Manganese	1010		0.62	J	1000	101	75-125		6020A
Nickel	1110		1.2	J	1000	111	75-125		6020A
Lead	1040		0.36	J	1000	104	75-125		6020A
Selenium	957		0.91	J	1000	96	75-125		6020A
Thallium	255		0.28	U	250	102	75-125		6020A
Vanadium	1030		5.1		1000	103	75-125		6020A
Zinc	960		6.2	U	1000	96	75-125		6020A
Silver	101		0.030	U	100	101	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-77315-E-1-G MS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.977		0.13	U	1.00	98	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77315-E-1-E MSD

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	94.4		100	93	75-125	2	20		6020A
Arsenic	969		1000	97	75-125	1	20		6020A
Barium	1070		1000	100	75-125	0	20		6020A
Beryllium	844		1000	84	75-125	3	20		6020A
Cadmium	1030		1000	103	75-125	0	20		6020A
Cobalt	1050		1000	105	75-125	1	20		6020A
Chromium	1020		1000	101	75-125	1	20		6020A
Copper	964		1000	96	75-125	2	20		6020A
Iron	10000		10000	100	75-125	1	20		6020A
Molybdenum	97.9		100	97	75-125	1	20		6020A
Manganese	1000		1000	100	75-125	1	20		6020A
Nickel	1100		1000	110	75-125	1	20		6020A
Lead	1030		1000	103	75-125	1	20		6020A
Selenium	964		1000	96	75-125	1	20		6020A
Thallium	252		250	101	75-125	1	20		6020A
Vanadium	1010		1000	100	75-125	3	20		6020A
Zinc	945		1000	94	75-125	2	20		6020A
Silver	99.0		100	99	75-125	2	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 240-77315-E-1-H MSD

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.908		1.00	91	80-120	7	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-272377/3-A

Lab Name: TestAmerica Canton Job No.: 240-77337-1

Sample Matrix: Water LCS Source: MTICPMSB_00030

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	95.8		96	80	120		6020A
Arsenic	1000	993		99	80	120		6020A
Barium	1000	1020		102	80	120		6020A
Beryllium	1000	946		95	80	120		6020A
Cadmium	1000	1060		106	80	120		6020A
Cobalt	1000	1110		111	80	120		6020A
Chromium	1000	1070		107	80	120		6020A
Copper	1000	1010		101	80	120		6020A
Iron	10000	10600		106	80	120		6020A
Molybdenum	100	99.6		100	80	120		6020A
Manganese	1000	1070		107	80	120		6020A
Nickel	1000	1190		119	80	120		6020A
Lead	1000	1090		109	80	120		6020A
Selenium	1000	1010		101	80	120		6020A
Thallium	250	267		107	80	120		6020A
Vanadium	1000	1080		108	80	120		6020A
Zinc	1000	999		100	80	120		6020A
Silver	100	103		103	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-272383/2-A

Lab Name: TestAmerica Canton Job No.: 240-77337-1

Sample Matrix: Water LCS Source: MTHGCALW_01464

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.99		100	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-77315-E-1-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-77337-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	1.6	J	1.53	J	NC		6020A
Arsenic	0.53	J	1.8	U	NC		6020A
Barium	72		72.2		NC		6020A
Beryllium	0.40	U	2.0	U	NC		6020A
Cadmium	0.31	U	1.6	U	NC		6020A
Cobalt	0.37	J	0.65	U	NC		6020A
Chromium	7.2		7.04	J	NC		6020A
Copper	0.37	J	1.8	U	NC		6020A
Iron	23	J	27	U	NC		6020A
Molybdenum	0.83	J	2.6	U	NC		6020A
Manganese	0.62	J	1.3	U	NC		6020A
Nickel	1.2	J	1.4	U	NC		6020A
Lead	0.36	J	0.80	U	NC		6020A
Selenium	0.91	J	2.4	U	NC		6020A
Thallium	0.28	U	1.4	U	NC		6020A
Vanadium	5.1		5.32	J	NC		6020A
Zinc	6.2	U	31	U	NC		6020A
Silver	0.030	U	0.15	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77337-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 12/13/2016 11:36

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.27
Arsenic	75.00	5	0.35
Barium	137.00	5	0.52
Beryllium	9.00	1	0.4
Cadmium	111.00	1	0.31
Chromium	52.00	2	0.26
Cobalt	59.00	1	0.13
Copper	65.00	2	0.36
Lead	208.00	1	0.16
Molybdenum	95.00	10	0.51
Nickel	60.00	2	0.28
Selenium	78.00	5	0.48
Silver	107.00	1	0.03
Thallium	205.00	1	0.28
Vanadium	51.00	5	0.54
Zinc	66.00	20	6.22

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77337-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 09/15/2014 17:03

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.16
Arsenic	75.00	5	0.49
Barium	137.00	5	1.1
Beryllium	9.00	1	0.053
Cadmium	111.00	1	0.061
Chromium	52.00	2	0.6
Cobalt	59.00	1	0.021
Copper	65.00	2	0.75
Lead	208.00	1	0.11
Molybdenum	95.00	10	0.23
Nickel	60.00	2	0.23
Selenium	78.00	5	0.25
Silver	107.00	1	0.02
Thallium	205.00	1	0.074
Vanadium	51.00	5	0.23
Zinc	66.00	20	7.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77337-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77337-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-77337-1

SDG No.:

Instrument ID: I10 Date: 10/14/2016 11:32

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Arsenic		10000	6020A
Barium		10000	6020A
Beryllium		2000	6020A
Cadmium		4000	6020A
Cobalt		5000	6020A
Chromium		10000	6020A
Copper		10000	6020A
Molybdenum		2000	6020A
Nickel		10000	6020A
Lead		4000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Vanadium		10000	6020A
Zinc		10000	6020A
Silver		300	6020A

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-77337-1

SDG No.:

Instrument ID: H2 Date: 05/15/2016 09:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-272377/1-A	03/29/2017 14:00	272377		50	50
LCS 240-272377/3-A	03/29/2017 14:00	272377		50	50
240-77315-E-1-D MS	03/29/2017 14:00	272377		50	50
240-77315-E-1-E MSD	03/29/2017 14:00	272377		50	50
240-77337-2	03/29/2017 14:00	272377		50	50
240-77337-3	03/29/2017 14:00	272377		50	50
240-77337-4	03/29/2017 14:00	272377		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-272383/1-A	03/29/2017 15:00	272383		50	50
LCS 240-272383/2-A	03/29/2017 15:00	272383		50	50
240-77315-E-1-G MS	03/29/2017 15:00	272383		50	50
240-77315-E-1-H MSD	03/29/2017 15:00	272383		50	50
240-77337-2	03/29/2017 15:00	272383		50	50
240-77337-3	03/29/2017 15:00	272383		50	50
240-77337-4	03/29/2017 15:00	272383		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/30/2017 11:40 End Date: 03/31/2017 00:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			11:40																									
ICIS 240-272731/2			11:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-272731/3 IC	1		11:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-272731/4 IC	1		11:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-272731/5 IC	1		11:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-272731/6 IC	1		12:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-272731/7	1		12:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-272731/8	1		12:09	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ICVL 240-272731/9	1		12:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-272731/10	1		12:18	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X								
ICSAB 240-272731/11	1		12:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-272731/12			12:26																									
CCB 240-272731/13			12:30																									
CCV 240-272731/14			12:45																									
CCB 240-272731/15			12:49																									
ZZZZZZ			12:53																									
ZZZZZZ			12:57																									
ZZZZZZ			13:01																									
ZZZZZZ			13:05																									
ZZZZZZ			13:10																									
ZZZZZZ			13:14																									
ZZZZZZ			13:17																									
ZZZZZZ			13:21																									
ZZZZZZ			13:26																									
ZZZZZZ			13:30																									
CCV 240-272731/26			13:34																									
CCB 240-272731/27			13:38																									
ZZZZZZ			13:42																									
ZZZZZZ			13:46																									
ZZZZZZ			13:50																									
ZZZZZZ			13:54																									
CCV 240-272731/32			13:59																									
CCB 240-272731/33			14:03																									
CCVL 240-272731/34			14:07																									
ZZZZZZ			14:11																									
ZZZZZZ			14:16																									
ZZZZZZ			14:20																									
ZZZZZZ			14:24																									
ZZZZZZ			14:28																									
ZZZZZZ			14:32																									
ZZZZZZ			14:36																									
ZZZZZZ			14:40																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/30/2017 11:40 End Date: 03/31/2017 00:04

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			14:44																										
CCV 240-272731/44			14:49																										
CCB 240-272731/45			14:53																										
ZZZZZZ			14:57																										
ZZZZZZ			15:01																										
ZZZZZZ			15:05																										
ZZZZZZ			15:10																										
CCV 240-272731/50			15:14																										
CCB 240-272731/51			15:18																										
CCVL 240-272731/52			15:22																										
ZZZZZZ			15:27																										
ZZZZZZ			15:31																										
ZZZZZZ			15:35																										
ZZZZZZ			15:39																										
ZZZZZZ			15:44																										
ZZZZZZ			15:48																										
CCV 240-272731/59			15:52																										
CCB 240-272731/60			15:56																										
CCVL 240-272731/61			16:00																										
ZZZZZZ			16:05																										
ZZZZZZ			16:09																										
ZZZZZZ			16:13																										
ZZZZZZ			16:17																										
ZZZZZZ			16:22																										
ZZZZZZ			16:26																										
ZZZZZZ			16:30																										
CCV 240-272731/69			16:34																										
CCB 240-272731/70			16:38																										
ZZZZZZ			16:42																										
ZZZZZZ			16:47																										
ZZZZZZ			16:51																										
ZZZZZZ			16:55																										
ZZZZZZ			16:59																										
ZZZZZZ			17:03																										
ZZZZZZ			17:07																										
ZZZZZZ			17:12																										
ZZZZZZ			17:16																										
ZZZZZZ			17:20																										
CCV 240-272731/81			17:24																										
CCB 240-272731/82			17:28																										
ZZZZZZ			17:33																										
ZZZZZZ			17:37																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/30/2017 11:40 End Date: 03/31/2017 00:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			17:41																									
CCV 240-272731/86	1		17:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-272731/87	1		17:50	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
CCVL 240-272731/88			17:54																									
MB 240-272377/1-A	1	R	17:58	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
LCS 240-272377/3-A	1	R	18:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			18:06																									
240-77315-E-1-A SD ^5	5	R	18:11	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			18:15																									
240-77315-E-1-D MS	1	R	18:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-77315-E-1-E MSD	1	R	18:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			18:27																									
ZZZZZZ			18:31																									
CCV 240-272731/98	1		18:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-272731/99	1		18:40	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			18:44																									
ZZZZZZ			18:48																									
ZZZZZZ			18:52																									
ZZZZZZ			18:57																									
ZZZZZZ			19:01																									
ZZZZZZ			19:05																									
ZZZZZZ			19:09																									
240-77337-2	1	R	19:14	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
240-77337-3	1	R	19:18	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
240-77337-4	1	R	19:22	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
CCV 240-272731/110	1		19:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-272731/111	1		19:31	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
CCVL 240-272731/112	1		19:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			19:39																									
ZZZZZZ			19:43																									
ZZZZZZ			19:48																									
CCV 240-272731/116			19:52																									
CCB 240-272731/117			19:56																									
ZZZZZZ			20:00																									
ZZZZZZ			20:04																									
ZZZZZZ			20:09																									
ZZZZZZ			20:13																									
ZZZZZZ			20:17																									
ZZZZZZ			20:21																									
ZZZZZZ			20:26																									
ZZZZZZ			20:30																									
CCV 240-272731/126			20:34																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/30/2017 11:40 End Date: 03/31/2017 00:04

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCB 240-272731/127			20:38																										
ZZZZZZ			20:43																										
ZZZZZZ			20:47																										
ZZZZZZ			20:51																										
CCV 240-272731/131			20:55																										
CCB 240-272731/132			20:59																										
ZZZZZZ			21:04																										
ZZZZZZ			21:08																										
ZZZZZZ			21:12																										
ZZZZZZ			21:16																										
ZZZZZZ			21:20																										
ZZZZZZ			21:24																										
ZZZZZZ			21:28																										
ZZZZZZ			21:32																										
ZZZZZZ			21:37																										
ZZZZZZ			21:41																										
CCV 240-272731/143			21:45																										
CCB 240-272731/144			21:49																										
ZZZZZZ			21:53																										
ZZZZZZ			21:58																										
ZZZZZZ			22:02																										
ZZZZZZ			22:06																										
ICSA 240-272731/149			22:10																										
ICSAB 240-272731/150			22:15																										
ZZZZZZ			22:19																										
ZZZZZZ			22:23																										
ZZZZZZ			22:27																										
ZZZZZZ			22:31																										
ZZZZZZ			22:35																										
ZZZZZZ			22:40																										
CCV 240-272731/157			22:44																										
CCB 240-272731/158			22:48																										
ZZZZZZ			22:52																										
ZZZZZZ			22:57																										
ZZZZZZ			23:01																										
ZZZZZZ			23:05																										
ZZZZZZ			23:09																										
ZZZZZZ			23:13																										
ZZZZZZ			23:17																										
ZZZZZZ			23:22																										
ZZZZZZ			23:26																										
ZZZZZZ			23:30																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 03/30/2017 11:40 End Date: 03/31/2017 00:04

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
CCV 240-272731/169			23:34																											
CCB 240-272731/170			23:39																											
CCV 240-272731/171			23:43																											
CCB 240-272731/172			23:47																											
ZZZZZZ			23:51																											
ZZZZZZ			23:56																											
CCV 240-272731/175			00:00																											
CCB 240-272731/176			00:04																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 03/30/2017 10:36 End Date: 03/30/2017 13:42

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-272575/1-A			10:36	X
IC 240-272575/2-A			10:38	X
IC 240-272575/3-A			10:40	X
IC 240-272575/4-A			10:42	X
IC 240-272575/5-A			10:44	X
IC 240-272575/6-A			10:46	X
ICV 240-272575/7-A	1		10:49	X
ICB 240-272575/8-A	1		10:51	X
CRA 240-272575/9-A	1		10:53	X
CCV 240-272575/10-A			10:55	
CCB 240-272575/11-A			10:57	
ZZZZZZ			10:59	
ZZZZZZ			11:01	
ZZZZZZ			11:03	
ZZZZZZ			11:05	
ZZZZZZ			11:07	
ZZZZZZ			11:09	
ZZZZZZ			11:12	
ZZZZZZ			11:14	
ZZZZZZ			11:16	
ZZZZZZ			11:18	
CCV 240-272575/10-A			11:20	
CCB 240-272575/11-A			11:22	
ZZZZZZ			11:25	
ZZZZZZ			11:27	
ZZZZZZ			11:28	
ZZZZZZ			11:31	
ZZZZZZ			11:33	
ZZZZZZ			11:35	
ZZZZZZ			11:37	
ZZZZZZ			11:39	
ZZZZZZ			11:41	
ZZZZZZ			11:43	
CCV 240-272575/10-A			11:45	
CCB 240-272575/11-A			11:47	
ZZZZZZ			11:49	
ZZZZZZ			11:51	
ZZZZZZ			11:53	
ZZZZZZ			11:55	
ZZZZZZ			11:57	
ZZZZZZ			11:59	
ZZZZZZ			12:01	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 03/30/2017 10:36 End Date: 03/30/2017 13:42

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			12:03																									
ZZZZZZ			12:05																									
ZZZZZZ			12:07																									
CCV 240-272575/10-A			12:09																									
CCB 240-272575/11-A			12:11																									
ZZZZZZ			12:13																									
ZZZZZZ			12:15																									
ZZZZZZ			12:17																									
ZZZZZZ			12:19																									
ZZZZZZ			12:21																									
ZZZZZZ			12:23																									
ZZZZZZ			12:25																									
ZZZZZZ			12:27																									
ZZZZZZ			12:29																									
ZZZZZZ			12:31																									
CCV 240-272575/10-A	1		12:33	X																								
CCB 240-272575/11-A	1		12:35	X																								
ZZZZZZ			12:37																									
ZZZZZZ			12:39																									
MB 240-272383/1-A	1	T	12:41	X																								
LCS 240-272383/2-A	1	T	12:43	X																								
ZZZZZZ			12:45																									
240-77315-E-1-G MS	1	T	12:47	X																								
240-77315-E-1-H MSD	1	T	12:49	X																								
ZZZZZZ			12:51																									
ZZZZZZ			12:53																									
ZZZZZZ			12:55																									
CCV 240-272575/10-A	1		12:57	X																								
CCB 240-272575/11-A	1		12:59	X																								
ZZZZZZ			13:01																									
ZZZZZZ			13:03																									
ZZZZZZ			13:05																									
ZZZZZZ			13:07																									
ZZZZZZ			13:09																									
ZZZZZZ			13:11																									
ZZZZZZ			13:13																									
ZZZZZZ			13:15																									
240-77337-2	1	T	13:16	X																								
240-77337-3	1	T	13:18	X																								
CCV 240-272575/10-A	1		13:20	X																								
CCB 240-272575/11-A	1		13:22	X																								
240-77337-4	1	T	13:25	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 03/30/2017 10:36 End Date: 03/30/2017 13:42

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			13:27																									
ZZZZZZ			13:28																									
ZZZZZZ			13:30																									
ZZZZZZ			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
CCV 240-272575/10-A	1		13:40	X																								
CCB 240-272575/11-A	1		13:42	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/30/2017 End Date: 03/30/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-272731/3 I	11:48	100		99		101		97		99	
STD2 240-272731/4 I	11:53	98		102		99		93		96	
STD3 240-272731/5 I	11:57	98		101		100		92		95	
STD4 240-272731/6 I	12:01	96		102		96		100		99	
ICV 240-272731/7	12:05	99		104		101		96		98	
ICB 240-272731/8	12:09	103		101		103		102		103	
ICVL 240-272731/9	12:14	102		106		102		102		103	
ICSA 240-272731/10	12:18	89		93		90		84		89	
ICSAB 240-272731/11	12:22	83		87		86		82		85	
CCV 240-272731/86	17:45	63		68		69		68		70	
CCB 240-272731/87	17:50	63		64		69		69		70	
MB 240-272377/1-A	17:58	58		66		72		70		69	
LCS 240-272377/3-A	18:02	58		65		73		68		67	
240-77315-E-1-A SD	18:11	64		70		76		74		74	
240-77315-E-1-D MS	18:19	58		69		76		70		69	
240-77315-E-1-E MSD	18:23	56		68		75		70		67	
CCV 240-272731/98	18:35	61		66		70		65		66	
CCB 240-272731/99	18:40	62		63		68		69		69	
240-77337-2	19:14	50		58		64		61		59	
240-77337-3	19:18	50		56		64		57		56	
240-77337-4	19:22	52		59		67		61		59	
CCV 240-272731/110	19:26	61		67		70		66		68	
CCB 240-272731/111	19:31	64		65		71		70		70	
CCVL 240-272731/112	19:35	63		66		71		70		71	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 03/30/2017 End Date: 03/30/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-272731/3 I	11:48	99		99		99					
STD2 240-272731/4 I	11:53	98		99		93					
STD3 240-272731/5 I	11:57	97		99		92					
STD4 240-272731/6 I	12:01	99		100		97					
ICV 240-272731/7	12:05	100		100		97					
ICB 240-272731/8	12:09	101		103		101					
ICVL 240-272731/9	12:14	103		104		103					
ICSA 240-272731/10	12:18	91		92		91					
ICSAB 240-272731/11	12:22	89		89		87					
CCV 240-272731/86	17:45	70		71		66					
CCB 240-272731/87	17:50	69		71		70					
MB 240-272377/1-A	17:58	72		72		77					
LCS 240-272377/3-A	18:02	71		72		72					
240-77315-E-1-A SD	18:11	76		77		79					
240-77315-E-1-D MS	18:19	74		75		73					
240-77315-E-1-E MSD	18:23	73		74		72					
CCV 240-272731/98	18:35	69		70		66					
CCB 240-272731/99	18:40	69		69		70					
240-77337-2	19:14	66		67		67					
240-77337-3	19:18	68		68		61					
240-77337-4	19:22	66		66		65					
CCV 240-272731/110	19:26	70		70		65					
CCB 240-272731/111	19:31	71		72		71					
CCVL 240-272731/112	19:35	71		72		71					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Batch Number: 272377 Batch Start Date: 03/29/17 14:00 Batch Analyst: Nguyen, Diem

Batch Method: 3005A Batch End Date: 03/29/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00028	MTICPMSA 00030	MTICPMSB 00030	MTTMHCL 00148
MB 240-272377/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-272377/3		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77315-E-1 MS		3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77315-E-1 MSD		3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77337-D-2	MRC-SEMW-7I-032717	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-77337-D-3	MRC-SEMW-8S-032717	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-77337-D-4	MRC-SEMW-8I-032717	3005A, 6020A	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00113					
MB 240-272377/1		3005A, 6020A		1 mL					
LCS 240-272377/3		3005A, 6020A		1 mL					
240-77315-E-1 MS		3005A, 6020A	R	1 mL					
240-77315-E-1 MSD		3005A, 6020A	R	1 mL					
240-77337-D-2	MRC-SEMW-7I-032717	3005A, 6020A	R	1 mL					
240-77337-D-3	MRC-SEMW-8S-032717	3005A, 6020A	R	1 mL					
240-77337-D-4	MRC-SEMW-8I-032717	3005A, 6020A	R	1 mL					

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB3
Pipette ID	MP1-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Batch Number: 272383 Batch Start Date: 03/29/17 15:00 Batch Analyst: Nguyen, Diem

Batch Method: 7470A Batch End Date: 03/29/17 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00058	MTH2S04 00039	MTHGCALW 01464	MTKMN04W 00127
MB 240-272383/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-272383/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-77315-E-1 MS		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77315-E-1 MSD		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77337-D-2	MRC-SEMW-7I-032717	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-77337-D-3	MRC-SEMW-8S-032717	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-77337-D-4	MRC-SEMW-8I-032717	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00113					
MB 240-272383/1		7470A, 7470A		1.25 mL					
LCS 240-272383/2		7470A, 7470A		1.25 mL					
240-77315-E-1 MS		7470A, 7470A	T	1.25 mL					
240-77315-E-1 MSD		7470A, 7470A	T	1.25 mL					
240-77337-D-2	MRC-SEMW-7I-032717	7470A, 7470A	T	1.25 mL					
240-77337-D-3	MRC-SEMW-8S-032717	7470A, 7470A	T	1.25 mL					
240-77337-D-4	MRC-SEMW-8I-032717	7470A, 7470A	T	1.25 mL					

Batch Notes	
Batch Comment	Samples are taken out within temp range (90-95C).
Hot Block ID	B1
Pipette ID	MP2-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77337-1

SDG No.:

Batch Number: 272575 Batch Start Date: 03/30/17 07:35 Batch Analyst: Dillon, William K

Batch Method: 7470A Batch End Date: 03/30/17 09:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00040	MTHGCALW 01465	MTHgICV_00001 00154
ICV 240-272575/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-272575/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-272575/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-272575/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-272575/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00127	MTTMHNO3 00113				
ICV 240-272575/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-272575/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-272575/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-272575/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-272575/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Hot Block ID	A1
Pipette ID	A6 MP1 MP2

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

VOA Calibration Calculations:

Initial Calibration 10/31/2016
Instrument A3UX9

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.5	25736	1053367	20	0.9773	0.9773
1	53152	1040169	20	1.0220	1.022
10	540436	1006186	20	1.0742	1.0742
20	1133250	1089945	20	1.0397	1.0397
40	2227875	1042770	20	1.0682	1.0682
80	4642598	1088824	20	1.0660	1.066
			Average	1.0412	1.0412
			Standard Deviation	0.0371	
			RSD	0.0357	
			%RSD	3.5657	3.6

Internal standard for benzene is fluorobenzene

Continuing Calibration 04/04/2017@ 21:45
Instrument A3UX9

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
20	1075714	975510	20	1.1027	5.6676077	1.103	5.9

MRC Groundwater
SDG 240-77337-1

SAMPLE IDENTIFICATION	MRC-SEMW-7I-032717	
COMPOUND	Trichloroethene	
COMPOUND AREA	317090	
INTERNAL STANDARD AMOUNT (ng)	20	
DILUTION FACTOR	1000	
INTERNAL STANDARD AREA	858535	
AVERAGE RRF	0.2817	
VOLUME OF SAMPLE	5	
VOLUME OF EXTRACT	5.00	
CONCENTRATION =	26222.11	ug/L

SVOA Calibration Calculations:

Initial Calibration 3/8/2017
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.01	2773	226947	0.5	0.61094	0.6109
0.02	6218	251612	0.5	0.61782	0.6178
0.05	14480	218926	0.5	0.66141	0.6614
0.1	27995	224595	0.5	0.62323	0.6232
0.2	48146	200782	0.5	0.59948	0.5995
0.4	110705	227238	0.5	0.60897	0.609
0.8	242998	233784	0.5	0.64963	0.6496
			Average	0.62450	0.6245
			Standard Deviation	0.0227	
			RSD	0.0363	
			%RSD	3.63475	3.6

Continuing Calibration 03/31/2017 @ 20:34
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
0.8	243008	213441	0.5	0.7116	13.943695	0.7116	13.9

MRC Groundwater
SDG 240-77337-1

SAMPLE IDENTIFICATION	MRC-SEMW-7I-032717	
COMPOUND	1,4-Dioxane	
COMPOUND AREA	3815	
INTERNAL STANDARD AMOUNT (ng)	0.5	
DILUTION FACTOR	1	
INTERNAL STANDARD AREA	252752	
AVERAGE RRF	0.6245	
VOLUME OF SAMPLE (ml)	100	
VOLUME OF EXTRACT (ul)	2000.00	
CONCENTRATION =	0.241695	ug/L

PCB Calibration Calculations:

Initial Calibration 4/14/2017
Instrument CMSX

Monochlorobiphenyl

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.1	5061	50645	0.75	0.7495	0.7495
0.5	20652	48080	0.75	0.6443	0.6443
1	41736	47440	0.75	0.6598	0.6598
2	86467	43524	0.75	0.7450	0.745
5	227316	48027	0.75	0.7100	0.71
			Average	0.7017	0.7017
			Standard Deviation	0.0482	
			RSD	0.0686	
			%RSD	6.8619	6.9

Continuing Calibration 04/14/2017@ 19:17
Instrument CMSX

Monochlorobiphenyl

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
1	44010	50680	0.75	0.6513	-7.4058411	0.6513	-7.2

MRC Groundwater
SDG 240-77337-1

SAMPLE IDENTIFICATION	MRC-MW37C-032717 MS	
COMPOUND	Monochlorobiphenyl	
COMPOUND AREA	63226	
INTERNAL STANDARD AMOUNT (ng)	0.75	
DILUTION FACTOR	1	
INTERNAL STANDARD AREA	55927	
AVERAGE RRF	0.7017	
VOLUME OF SAMPLE (L)	0.5001	
VOLUME OF EXTRACT	1.00	
CONCENTRATION =	2.416168	ug/L
SPIKE ADDED	2	
SAMPLE RESULT	0.011 u	
PERCENT RECOVERY	120.8083965	

Sample Report

Sample Table

Sample Name	240-77337-d-2-a
Data File Name	107SMPL.d
Data Path Name	D:\Analytical Runs\I10033017B.b
Acq Date Time	2017-03-30T19:14:12-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

Sample MRC-SEMW-7I-032717

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	6	2	NoGas	4.215	4.215	6.66	376986	0.00	10000	
Be	9	45	2	NoGas	3.990	3.990	0.92	26388	0.02	2000	
B	11	45	2	NoGas	18.638	18.638	1.69	118621	0.02	300	
Na	23	45	1	He	25787.839	25787.839	2.28	21811010	0.12	500000	
Mg	24	45	1	He	4443.554	4443.554	2.21	1937489	0.23	500000	
Al	27	45	1	He	268.074	268.074	4.18	50987	0.53	200000	
K	39	45	1	He	2149.349	2149.349	2.17	741084	0.29	500000	
Ca	44	45	1	He	2565.160	2565.160	2.66	46828	5.48	500000	
Ti	47	45	1	He	3.438	3.438	36.64	364	0.94	2500	
V	51	45	1	He	0.415	0.415	10.43	1312	0.03	10000	
Cr	52	45	1	He	0.580	0.580	4.60	2425	0.02	10000	
Mn	55	45	1	He	65.312	65.312	2.56	161573	0.04	10000	
Fe	56	45	1	He	312.428	312.428	2.65	921586	0.03	200000	
Co	59	45	1	He	44.813	44.813	2.25	232859	0.02	5000	
Ni	60	45	1	He	74.819	74.819	1.64	98542	0.08	10000	
Cu	63	103	1	He	13.450	13.450	0.97	55864	0.02	10000	
Zn	66	103	1	He	99.232	99.232	1.54	75694	0.13	10000	
As	75	115	1	He	0.202	0.202	11.30	129	0.16	10000	
Se	78	115	1	He	0.534	0.534	22.39	35	1.54	10000	
Sr	88	103	1	He	33.054	33.054	1.26	110618	0.03	10000	
Mo	95	103	1	He	-0.031	-0.031	-62.15	136	-0.02	2000	
Ag	107	103	1	He	0.006	0.006	26.39	80	0.01	300	
Cd	111	115	1	He	0.061	0.061	6.80	80	0.08	4000	
Sn	118	115	1	He	1.114	1.114	2.69	3945	0.03	2000	
Sb	123	159	1	He	0.000	0.000	-7601.84	378	0.00	200	
Ba	137	115	1	He	70.078	70.078	2.03	76319	0.09	10000	
W	182	159	1	He	-0.074	-0.074	-10.96	807	-0.01	2500	
Tl	205	165	1	He	0.094	0.094	3.43	2039	0.00	2000	
Pb	208	165	1	He	0.247	0.247	3.21	7095	0.00	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	5202820	1.36	10388556	50.08	60	120	ISTD warning
Sc	45	1	He	739476	2.29	1284507	57.57	60	120	ISTD warning
Sc	45	2	NoGas	11692397	0.86	18231961	64.13	60	120	
Rh	103	1	He	2946482	0.53	4797204	61.42	60	120	
In	115	1	He	1406935	0.53	2372290	59.31	60	120	ISTD warning
Tb	159	1	He	5002226	1.14	7588243	65.92	60	120	
Ho	165	1	He	5147290	0.60	7670100	67.11	60	120	
Bi	209	1	He	3858592	1.39	5756274	67.03	60	120	

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **MAY 24, 2017**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs, 1,4-DIOXANE**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC) GROUNDWATER
SDG 240-77377-1

SAMPLES: 5/Aqueous
VOCs

MRC-DUP04-032817	MRC-MW101A0032817	MRC-MW101B-032817
MRC-MW102A-032817	MRC-MW79B-032817	

4/Aqueous
1,4-Dioxane

MRC-MW101A-032817	MRC-MW101B-032817	MRC-MW102B-032817
MRC-MW79B-032817		

1/Trip Blank
TB-032817

Overview

The sample set for LMC-MRC Groundwater, SDG 240-77377-1 consisted of six (6) aqueous environmental samples and one (1) trip blank. Samples MRC-DUP04-032817, MRC-MW101A0032817, MRC-MW101B-032817, MRC-MW102A-032817, MRC-MW79B-032817 and TB-032817 were analyzed for volatile organic compounds (VOCs). Samples MRC-MW101A-032817, MRC-MW101B-032817, MRC-MW102B-032817 and MRC-MW79B-032817 were analyzed for 1,4-Dioxane. One (1) field duplicate sample pair (MRC-MW102A-032817 / MRC-DUP04-032817) was included in this SDG.

The samples were collected by Tetra Tech, Inc. on March 28, 2017 and analyzed by TestAmerica-Canton and TestAmerica-Burlington. All analyses were conducted in accordance with SW-846 Method 8260C, and EPA methods 522 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method/trip blank results, surrogate spike recoveries, laboratory control sample / laboratory control sample duplicate results, matrix spike / matrix spike duplicate recoveries, internal standard areas and recoveries, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The VOC initial calibration verification performed on instrument A3UX11 on 03/29/17 @ 15:09 had a percent difference (%D) for acetone which exceeded the quality control limit. Sample TB-032817 was affected. The non-detected result reported for acetone in the affected sample was qualified as estimated, (UJ).

- The VOC continuing calibration performed on instrument A3UX11 on 03/31/17 @ 10:13 had %Ds for bromomethane, 2-butanone, 2-hexanone and bromoform which exceeded the quality control limits.

Sample TB-032817 was affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

- The VOC continuing calibration performed on instrument A3UX16 on 04/05/17 @ 8:29 had %Ds for dichlorodofluoromethane, 1,1,2,2-trichloro-1,2,2-trifluoroethane, carbon disulfide, methylcyclohexane and cyclohexane which exceeded the quality control limits. Samples MRC-DUP04-032817, MRC-MW101A-032817, MRC-MW101B-032817, MRC-102A-032817 and MRC-MW79B-032817 were affected. The detected and non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (J) and (UJ), respectively.

- The VOC laboratory control standard (LCS) recovery for 1,1,2,2-trichloro-1,2,2-trifluoroethane was below the quality control limits. Samples (preparation batch 273345) MRC-DUP04-032817, MRC-MW101A-032817, MRC-MW101B-032817, MRC-102A-032817 and MRC-MW79B-032817 were affected. The non-detected results reported for the aforementioned compound in the affected samples were qualified as estimated, (UJ).

- Detected results reported below the RL but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

It was noted in the case narrative that for sample MRC-MW102B-032817, all three hydrochloric acid preserved vial were received empty. The sample was not analyzed for the VOC analyses.

Sample MRC-MW79B-032817 was analyzed at a dilution for the VOC analyses. Sample MRC-MW79B-032817 was analyzed at a dilution for the 1,4-Dioxane analyses. The detection limits of the non-detected results were elevated.

Non-detected results were reported to the MDL.

Executive Summary

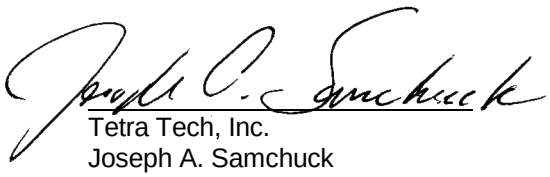
Laboratory Performance: Several CCV %Ds were noncompliant for the VOC fraction. A LCS recovery was noncompliant for the VOC analyses.

Other Factors Affecting Data Quality: Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Terri L. Solomon

Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator



Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-DUP04-032817			MRC-MW101A-032817			MRC-MW101B-032817			MRC-MW102A-032817		
SDG: 240-77377-1	LAB_ID	240-77377-7			240-77377-2			240-77377-3			240-77377-4		
FRACTION: OV	SAMP_DATE	3/28/2017			3/28/2017			3/28/2017			3/28/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW102A-032817											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	CE	0.41	UJ	CE	0.41	UJ	CE	0.41	UJ	CE
1,1-DICHLOROETHANE		0.25	U		0.58	J	P	5.3			0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.66	J	P	1.8			0.27	U	
1,2,3-TRICHLOROBENZENE		0.35	U		0.35	U		0.35	U		0.35	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3,5-TRICHLOROBENZENE		0.33	U		0.33	U		0.33	U		0.33	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	0.34	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		1.8			28			1.6			1.9		
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		1.1	J	C	0.44	UJ	C	0.44	UJ	C	1.4	J	C
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C

PROJ_NO: 07776	NSAMPLE	MRC-MW79B-032817			TB-032817		
SDG: 240-77377-1	LAB_ID	240-77377-6			240-77377-1		
FRACTION: OV	SAMP_DATE	3/28/2017			3/28/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	12	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE	16	U		0.32	U	
1,1,2-TRICHLOROETHANE	17	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	21	UJ	CE	0.41	U	
1,1-DICHLOROETHANE	13	U		0.25	U	
1,1-DICHLOROETHENE	14	U		0.27	U	
1,2,3-TRICHLOROBENZENE	18	U		0.35	U	
1,2,4-TRICHLOROBENZENE	14	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE	24	U		0.47	U	
1,2-DIBROMOETHANE	12	U		0.23	U	
1,2-DICHLOROBENZENE	13	U		0.26	U	
1,2-DICHLOROETHANE	15	U		0.3	U	
1,2-DICHLOROPROPANE	15	U		0.3	U	
1,3,5-TRICHLOROBENZENE	17	U		0.33	U	
1,3-DICHLOROBENZENE	16	U		0.32	U	
1,4-DICHLOROBENZENE	12	U		0.23	U	
2-BUTANONE	51	U		1	UJ	C
2-HEXANONE	62	U		1.2	UJ	C
4-METHYL-2-PENTANONE	36	U		0.71	U	
ACETONE	88	U		1.8	UJ	C
BENZENE	14	U		0.28	U	
BROMODICHLOROMETHANE	15	U		0.3	U	
BROMOFORM	22	U		0.43	UJ	C
BROMOMETHANE	21	U		0.42	UJ	C
CARBON DISULFIDE	17	UJ	C	0.34	U	
CARBON TETRACHLORIDE	18	U		0.35	U	
CHLOROBENZENE	16	U		0.32	U	
CHLORODIBROMOMETHANE	13	U		0.25	U	
CHLOROETHANE	21	U		0.41	U	
CHLOROFORM	16	U		0.31	U	
CHLOROMETHANE	22	U		0.43	U	
CIS-1,2-DICHLOROETHENE	1900			0.3	U	
CIS-1,3-DICHLOROPROPENE	13	U		0.26	U	
CYCLOHEXANE	22	UJ	C	0.44	U	
DICHLORODIFLUOROMETHANE	25	UJ	C	0.5	U	

PROJ_NO: 07776	NSAMPLE	MRC-DUP04-032817			MRC-MW101A-032817			MRC-MW101B-032817			MRC-MW102A-032817		
SDG: 240-77377-1	LAB_ID	240-77377-7			240-77377-2			240-77377-3			240-77377-4		
FRACTION: OV	SAMP_DATE	3/28/2017			3/28/2017			3/28/2017			3/28/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW102A-032817											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	UJ	C	0.45	UJ	C	0.45	UJ	C	0.47	J	CP
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		1.6			0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		4.4			1.7			0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		1.9			0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW79B-032817			TB-032817		
SDG: 240-77377-1	LAB_ID	240-77377-6			240-77377-1		
FRACTION: OV	SAMP_DATE	3/28/2017			3/28/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		13	U		0.26	U	
ISOPROPYLBENZENE		11	U		0.21	U	
METHYL ACETATE		72	U		1.4	U	
METHYL CYCLOHEXANE		23	UJ	C	0.45	U	
METHYL TERT-BUTYL ETHER		14	U		0.27	U	
METHYLENE CHLORIDE		27	U		0.53	U	
STYRENE		12	U		0.23	U	
TETRACHLOROETHENE		15	U		0.3	U	
TOLUENE		12	U		0.23	U	
TOTAL XYLENES		12	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		16	J	P	0.29	U	
TRANS-1,3-DICHLOROPROPENE		16	U		0.31	U	
TRICHLOROETHENE		1600			0.33	U	
TRICHLOROFLUOROMETHANE		25	U		0.5	U	
VINYL CHLORIDE		38	J	P	0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW101A-032817			MRC-MW101B-032817			MRC-MW102B-032817			MRC-MW79B-032817		
SDG: 240-77377-1	LAB_ID	240-77377-2			240-77377-3			240-77377-5			240-77377-6		
FRACTION: OS	SAMP_DATE	3/28/2017			3/28/2017			3/28/2017			3/28/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		3.7			8			3			14		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: TB-032817 | Lab Sample ID: 240-77377-1

Matrix: Water | Lab File ID: UXJ1144.D

Analysis Method: 8260C | Date Collected: 03/28/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 19:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: TB-032817 | Lab Sample ID: 240-77377-1

Matrix: Water | Lab File ID: UXJ1144.D

Analysis Method: 8260C | Date Collected: 03/28/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 19:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-124
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW101A-032817 | Lab Sample ID: 240-77377-2

Matrix: Water | Lab File ID: UXM1537.D

Analysis Method: 8260C | Date Collected: 03/28/2017 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 14:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U *	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.58	J	1.0	0.25
75-35-4	1,1-Dichloroethene	0.66	J	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	28		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW101A-032817 | Lab Sample ID: 240-77377-2

Matrix: Water | Lab File ID: UXM1537.D

Analysis Method: 8260C | Date Collected: 03/28/2017 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 14:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	1.6		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	4.4		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	1.9		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-124
1868-53-7	Dibromofluoromethane (Surr)	89		80-120
460-00-4	4-Bromofluorobenzene (Surr)	102		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW101B-032817 | Lab Sample ID: 240-77377-3

Matrix: Water | Lab File ID: UXM1538.D

Analysis Method: 8260C | Date Collected: 03/28/2017 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 14:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U *	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	5.3		1.0	0.25
75-35-4	1,1-Dichloroethene	1.8		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.6		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW101B-032817 | Lab Sample ID: 240-77377-3

Matrix: Water | Lab File ID: UXM1538.D

Analysis Method: 8260C | Date Collected: 03/28/2017 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 14:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	1.7		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-124
1868-53-7	Dibromofluoromethane (Surr)	87		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW102A-032817 | Lab Sample ID: 240-77377-4

Matrix: Water | Lab File ID: UXM1539.D

Analysis Method: 8260C | Date Collected: 03/28/2017 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 14:49

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U *	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.9		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
79-20-9	Methyl acetate	1.4	U	10	1.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW102A-032817 | Lab Sample ID: 240-77377-4

Matrix: Water | Lab File ID: UXM1539.D

Analysis Method: 8260C | Date Collected: 03/28/2017 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 14:49

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.47	J	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-124
1868-53-7	Dibromofluoromethane (Surr)	89		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW102A-032817 | Lab Sample ID: 240-77377-4

Matrix: Water | Lab File ID: UX962964.D

Analysis Method: 8260C | Date Collected: 03/28/2017 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 12:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
110-82-7	Cyclohexane	1.4		1.0	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	87		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW79B-032817 | Lab Sample ID: 240-77377-6

Matrix: Water | Lab File ID: UXM1540.D

Analysis Method: 8260C | Date Collected: 03/28/2017 14:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 15:12

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	12	U	50	12
79-34-5	1,1,2,2-Tetrachloroethane	16	U	50	16
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	21	U *	50	21
79-00-5	1,1,2-Trichloroethane	17	U	50	17
75-34-3	1,1-Dichloroethane	13	U	50	13
75-35-4	1,1-Dichloroethene	14	U	50	14
120-82-1	1,2,4-Trichlorobenzene	14	U	50	14
96-12-8	1,2-Dibromo-3-Chloropropane	24	U	100	24
106-93-4	Ethylene Dibromide	12	U	50	12
95-50-1	1,2-Dichlorobenzene	13	U	50	13
107-06-2	1,2-Dichloroethane	15	U	50	15
78-87-5	1,2-Dichloropropane	15	U	50	15
541-73-1	1,3-Dichlorobenzene	16	U	50	16
106-46-7	1,4-Dichlorobenzene	12	U	50	12
78-93-3	2-Butanone (MEK)	51	U	500	51
591-78-6	2-Hexanone	62	U	500	62
108-10-1	4-Methyl-2-pentanone (MIBK)	36	U	500	36
67-64-1	Acetone	88	U	500	88
71-43-2	Benzene	14	U	50	14
75-27-4	Dichlorobromomethane	15	U	50	15
75-25-2	Bromoform	22	U	50	22
74-83-9	Bromomethane	21	U	50	21
75-15-0	Carbon disulfide	17	U	50	17
56-23-5	Carbon tetrachloride	18	U	50	18
108-90-7	Chlorobenzene	16	U	50	16
75-00-3	Chloroethane	21	U	50	21
67-66-3	Chloroform	16	U	50	16
74-87-3	Chloromethane	22	U	50	22
156-59-2	cis-1,2-Dichloroethene	1900		50	15
10061-01-5	cis-1,3-Dichloropropene	13	U	50	13
110-82-7	Cyclohexane	22	U	50	22
124-48-1	Chlorodibromomethane	13	U	50	13
75-71-8	Dichlorodifluoromethane	25	U	50	25
100-41-4	Ethylbenzene	13	U	50	13
98-82-8	Isopropylbenzene	11	U	50	11

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW79B-032817 | Lab Sample ID: 240-77377-6

Matrix: Water | Lab File ID: UXM1540.D

Analysis Method: 8260C | Date Collected: 03/28/2017 14:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 15:12

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	72	U	500	72
1634-04-4	Methyl tert-butyl ether	14	U	50	14
108-87-2	Methylcyclohexane	23	U	50	23
75-09-2	Methylene Chloride	27	U	50	27
100-42-5	Styrene	12	U	50	12
127-18-4	Tetrachloroethene	15	U	50	15
108-88-3	Toluene	12	U	50	12
156-60-5	trans-1,2-Dichloroethene	16	J	50	15
10061-02-6	trans-1,3-Dichloropropene	16	U	50	16
79-01-6	Trichloroethene	1600		50	17
75-69-4	Trichlorofluoromethane	25	U	50	25
75-01-4	Vinyl chloride	38	J	50	23
1330-20-7	Xylenes, Total	12	U	100	12
87-61-6	1,2,3-Trichlorobenzene	18	U	50	18
108-70-3	1,3,5-Trichlorobenzene	17	U	50	17

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	87		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-DUP04-032817 | Lab Sample ID: 240-77377-7

Matrix: Water | Lab File ID: UXM1541.D

Analysis Method: 8260C | Date Collected: 03/28/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 15:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U *	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.8		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
79-20-9	Methyl acetate	1.4	U	10	1.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-DUP04-032817 | Lab Sample ID: 240-77377-7

Matrix: Water | Lab File ID: UXM1541.D

Analysis Method: 8260C | Date Collected: 03/28/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 15:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-124
1868-53-7	Dibromofluoromethane (Surr)	86		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-DUP04-032817 | Lab Sample ID: 240-77377-7

Matrix: Water | Lab File ID: UX962965.D

Analysis Method: 8260C | Date Collected: 03/28/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 13:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
110-82-7	Cyclohexane	1.1		1.0	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-132

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW101A-032817 | Lab Sample ID: 240-77377-2

Matrix: Water | Lab File ID: Z24703_59.D

Analysis Method: 522 | Date Collected: 03/28/2017 09:30

Extract. Method: 3535A | Date Extracted: 04/12/2017 09:25

Sample wt/vol: 100(mL) | Date Analyzed: 04/13/2017 02:17

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.7		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	103		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW101B-032817 | Lab Sample ID: 240-77377-3

Matrix: Water | Lab File ID: Z24703_60.D

Analysis Method: 522 | Date Collected: 03/28/2017 09:15

Extract. Method: 3535A | Date Extracted: 04/12/2017 09:25

Sample wt/vol: 100(mL) | Date Analyzed: 04/13/2017 02:34

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	8.0		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	105		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW102B-032817 | Lab Sample ID: 240-77377-5

Matrix: Water | Lab File ID: Z24703_61.D

Analysis Method: 522 | Date Collected: 03/28/2017 11:40

Extract. Method: 3535A | Date Extracted: 04/12/2017 09:25

Sample wt/vol: 100(mL) | Date Analyzed: 04/13/2017 02:51

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.0		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	104		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77377-1

SDG No.:

Client Sample ID: MRC-MW79B-032817 | Lab Sample ID: 240-77377-6

Matrix: Water | Lab File ID: Z24719_02.D

Analysis Method: 522 | Date Collected: 03/28/2017 14:00

Extract. Method: 3535A | Date Extracted: 04/12/2017 09:25

Sample wt/vol: 100(mL) | Date Analyzed: 04/13/2017 09:24

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1.667

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115776 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	14		0.33	0.095

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	106		46-130

Appendix C

Support Documentation

ANALYTE	ORIGINAL MW102A	DUPLICATE DUP04	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2XRL
cis-1,2-Dichloroethene	1.9	1.8	1	5.405	FALSE	FALSE	FALSE	FALSE
Methylcyclohexane	0.47	0.45	1	4.348	FALSE	FALSE	FALSE	FALSE
Cyclohexane	1.4	1.1	1	24.000	FALSE	FALSE	FALSE	FALSE

180325

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

BALTIMORE

1.8|1.5

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Michael Martin	Site Contact: Stu Cameron	Date: 3/28/2017	COC No:
Tetra Tech	Tel/Fax: 410-707-5259 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No. 112IC07776-13
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			
(301) 528-3002 Phone	TAT if different from Below: 21 DAYS			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MRC Ground Water Sampling	☐ 1 week			Sampler: S. Cameron
Site: Middle River Complex, Maryland	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs (8260C)	1,4-Dioxane	Sample Specific Notes:
TB-032817	3/28/2017	--	--	Water	2	N	x		
MRC-MW101A-032817	3/28/2017	0930	GW	Water	5	N	x	x	
MRC-MW101B-032817	3/28/2017	0915	GW	Water	5	N	x	x	
MRC-MW102A-032817	3/28/2017	1050	GW	Water	3	N	x		
MRC-MW102B-032817	3/28/2017	1140	GW	Water	5	N	x	x	
MRC-MW79B-032817	3/28/2017	1400	GW	Water	5	N	x	x	
MRC-DUP04-032817	3/28/2017	0000	GW	Water	3	N	x		
							2	2	

240-77377 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☑ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments: Use sample from VOC vials for Chlorinated Benzene analysis.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	3-28-17/1445	Dalice A Carter	TA	3-28-17 1445
Relinquished by: Dalice A Carter	Company:	Date/Time:	Received by:	Company: TA	Date/Time: 3-29-17 930
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 17377
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 3-29-17 Opened on 3-29-17

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 1.8 °C Corrected Cooler Temp. 1.5 °C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No DEN see #14
11. Are these work share samples?	Yes	No
If yes, Questions 11-15 have been checked at the originating laboratory.		
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials?	Yes	No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
15. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

Sample MEC-MW102B-032817 was received with 3x40mL HCL vials empty

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-77377-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 1,4-Dioxane samples by method 522 were performed by the Test America Burlington laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 03/29/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.5 C.

All three HCl preserved vials for the following sample were received empty: MRC-MW102B-032817 (240-77377-5). The client was notified on 3/29/17 by the laboratory.

1,4-DIOXANE

Samples MRC-MW101A-032817 (240-77377-2), MRC-MW101B-032817 (240-77377-3), MRC-MW102B-032817 (240-77377-5) and MRC-MW79B-032817 (240-77377-6) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 04/12/2017 and analyzed on 04/13/2017.

Sample MRC-MW79B-032817 (240-77377-6)[1.67X] required dilution prior to analysis to bring the concentration of target analytes within the calibration range. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-032817 (240-77377-1), MRC-MW101A-032817 (240-77377-2), MRC-MW101B-032817 (240-77377-3), MRC-MW102A-032817 (240-77377-4), MRC-MW79B-032817 (240-77377-6) and MRC-DUP04-032817 (240-77377-7) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/31/2017, 04/05/2017 and 04/07/2017.

The laboratory control sample (LCS) for analytical batch 240-273345 recovered outside control limits for the following analyte(s): 1,1,2-Trichloro-1,2,2-trifluoroethane. 1,1,2-Trichloro-1,2,2-trifluoroethane has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

The continuing calibration verification (CCV) analyzed in batch 240-273345 was outside the method criteria for the following analyte(s): Multiple Analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Sample MRC-MW79B-032817 (240-77377-6)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-77377-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-77377-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-77377-1	TB-032817	Water	03/28/17 00:00	03/29/17 09:30
240-77377-2	MRC-MW101A-032817	Water	03/28/17 09:30	03/29/17 09:30
240-77377-3	MRC-MW101B-032817	Water	03/28/17 09:15	03/29/17 09:30
240-77377-4	MRC-MW102A-032817	Water	03/28/17 10:50	03/29/17 09:30
240-77377-5	MRC-MW102B-032817	Water	03/28/17 11:40	03/29/17 09:30
240-77377-6	MRC-MW79B-032817	Water	03/28/17 14:00	03/29/17 09:30
240-77377-7	MRC-DUP04-032817	Water	03/28/17 00:00	03/29/17 09:30

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-032817	240-77377-1	99	96	100	99
MRC-MW101A-032817	240-77377-2	89	88	103	102
MRC-MW101B-032817	240-77377-3	87	89	98	99
MRC-MW102A-032817	240-77377-4	89	87	100	98
MRC-MW102A-032817	240-77377-4	98	103	94	87
MRC-MW79B-032817	240-77377-6	87	90	99	99
MRC-DUP04-032817	240-77377-7	86	87	96	95
MRC-DUP04-032817	240-77377-7	101	101	92	88
	MB 240-272768/6	97	93	99	100
	MB 240-273345/7	87	89	98	98
	MB 240-273734/7	101	104	93	91
	LCS 240-272768/4	99	99	98	98
	LCS 240-273345/4	87	91	101	98
	LCS 240-273734/4	102	101	92	95
	200-37906-B-3 MS	99	98	99	99
	240-77450-B-4 MS	88	88	101	98
	240-77416-B-3 MS	106	99	92	97
	200-37906-B-3 MSD	106	105	103	103
	240-77450-B-4 MSD	86	89	101	98
	240-77416-B-3 MSD	103	97	95	95

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1121.D

Lab ID: LCS 240-272768/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.89	99	79-133	
1,1,2,2-Tetrachloroethane	10.0	9.54	95	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	8.44	84	65-151	
1,1,2-Trichloroethane	10.0	10.1	101	80-120	
1,1-Dichloroethane	10.0	9.75	97	77-121	
1,1-Dichloroethene	10.0	10.0	100	70-141	
1,2,4-Trichlorobenzene	10.0	9.32	93	53-137	
1,2-Dibromo-3-Chloropropane	10.0	8.74	87	46-140	
Ethylene Dibromide	10.0	9.60	96	80-126	
1,2-Dichlorobenzene	10.0	9.72	97	80-120	
1,2-Dichloroethane	10.0	9.96	100	76-130	
1,2-Dichloropropane	10.0	9.96	100	79-121	
1,3-Dichlorobenzene	10.0	9.82	98	80-120	
1,4-Dichlorobenzene	10.0	9.76	98	80-120	
2-Butanone (MEK)	20.0	15.9	80	54-122	
2-Hexanone	20.0	15.8	79	56-124	
4-Methyl-2-pentanone (MIBK)	20.0	18.4	92	60-131	
Acetone	20.0	11.8	59	46-120	
Benzene	10.0	9.75	97	80-120	
Dichlorobromomethane	10.0	9.62	96	76-125	
Bromoform	10.0	6.16	62	52-157	
Bromomethane	10.0	7.11	71	24-160	
Carbon disulfide	10.0	9.88	99	58-160	
Carbon tetrachloride	10.0	9.65	97	69-149	
Chlorobenzene	10.0	9.78	98	80-120	
Chloroethane	10.0	7.86	79	24-147	
Chloroform	10.0	9.93	99	80-120	
Chloromethane	10.0	7.96	80	50-135	
cis-1,2-Dichloroethene	10.0	10.1	101	80-120	
cis-1,3-Dichloropropene	10.0	9.28	93	75-120	
Cyclohexane	10.0	9.57	96	66-135	
Chlorodibromomethane	10.0	8.55	85	68-131	
Dichlorodifluoromethane	10.0	8.23	82	32-140	
Ethylbenzene	10.0	9.74	97	80-120	
Isopropylbenzene	10.0	9.79	98	80-120	
Methyl acetate	20.0	18.4	92	65-124	
Methyl tert-butyl ether	10.0	10.1	101	75-126	
Methylcyclohexane	10.0	9.02	90	71-122	
Methylene Chloride	10.0	10.5	105	68-136	
Styrene	10.0	9.77	98	80-120	
Tetrachloroethene	10.0	10.0	100	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1121.D

Lab ID: LCS 240-272768/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	10.0	9.88	99	80-121	
trans-1,2-Dichloroethene	10.0	9.76	98	80-123	
trans-1,3-Dichloropropene	10.0	8.51	85	65-120	
Trichloroethene	10.0	10.3	103	80-122	
Trichlorofluoromethane	10.0	8.80	88	56-161	
Vinyl chloride	10.0	8.43	84	60-129	
Xylenes, Total	20.0	19.6	98	80-120	
m-Xylene & p-Xylene	10.0	9.72	97	80-120	
o-Xylene	10.0	9.85	99	80-120	
1,2,3-Trichlorobenzene	10.0	9.58	96	53-135	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1526.D

Lab ID: LCS 240-273345/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.1	90	79-133	
1,1,2,2-Tetrachloroethane	20.0	21.3	106	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	8.95	45	65-151	*
1,1,2-Trichloroethane	20.0	21.0	105	80-120	
1,1-Dichloroethane	20.0	18.2	91	77-121	
1,1-Dichloroethene	20.0	18.6	93	70-141	
1,2,4-Trichlorobenzene	20.0	20.7	104	53-137	
1,2-Dibromo-3-Chloropropane	20.0	20.3	102	46-140	
Ethylene Dibromide	20.0	21.2	106	80-126	
1,2-Dichlorobenzene	20.0	20.6	103	80-120	
1,2-Dichloroethane	20.0	18.6	93	76-130	
1,2-Dichloropropane	20.0	18.5	92	79-121	
1,3-Dichlorobenzene	20.0	20.0	100	80-120	
1,4-Dichlorobenzene	20.0	20.1	101	80-120	
2-Butanone (MEK)	40.0	33.2	83	54-122	
2-Hexanone	40.0	40.1	100	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	36.6	92	60-131	
Acetone	40.0	30.2	76	46-120	
Benzene	20.0	18.4	92	80-120	
Dichlorobromomethane	20.0	18.2	91	76-125	
Bromoform	20.0	19.1	95	52-157	
Bromomethane	20.0	17.3	86	24-160	
Carbon disulfide	20.0	17.8	89	58-160	
Carbon tetrachloride	20.0	17.1	85	69-149	
Chlorobenzene	20.0	20.0	100	80-120	
Chloroethane	20.0	18.7	94	24-147	
Chloroform	20.0	18.0	90	80-120	
Chloromethane	20.0	16.2	81	50-135	
cis-1,2-Dichloroethene	20.0	18.2	91	80-120	
cis-1,3-Dichloropropene	20.0	17.9	90	75-120	
Cyclohexane	20.0	14.1	70	66-135	
Chlorodibromomethane	20.0	20.2	101	68-131	
Dichlorodifluoromethane	20.0	12.6	63	32-140	
Ethylbenzene	20.0	20.6	103	80-120	
Isopropylbenzene	20.0	20.4	102	80-120	
Methyl acetate	40.0	37.4	94	65-124	
Methyl tert-butyl ether	20.0	18.2	91	75-126	
Methylcyclohexane	20.0	14.4	72	71-122	
Methylene Chloride	20.0	17.2	86	68-136	
Styrene	20.0	20.2	101	80-120	
Tetrachloroethene	20.0	20.8	104	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1526.D

Lab ID: LCS 240-273345/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.6	103	80-121	
trans-1,2-Dichloroethene	20.0	18.2	91	80-123	
trans-1,3-Dichloropropene	20.0	19.9	100	65-120	
Trichloroethene	20.0	17.5	87	80-122	
Trichlorofluoromethane	20.0	16.0	80	56-161	
Vinyl chloride	20.0	17.2	86	60-129	
Xylenes, Total	40.0	40.7	102	80-120	
m-Xylene & p-Xylene	20.0	20.3	101	80-120	
o-Xylene	20.0	20.4	102	80-120	
1,2,3-Trichlorobenzene	20.0	21.1	105	53-135	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962957.D

Lab ID: LCS 240-273734/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Cyclohexane	20.0	19.6	98	66-135	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1145.D

Lab ID: 200-37906-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	33.3	0.77 U	31.1	93	55-150	
1,1,2,2-Tetrachloroethane	33.3	1.1 U	29.6	89	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	33.3	1.4 U	21.7	65	41-149	
1,1,2-Trichloroethane	33.3	1.1 U	32.9	99	65-130	
1,1-Dichloroethane	33.3	0.83 U	30.9	93	57-135	
1,1-Dichloroethene	33.3	0.90 U	31.5	94	50-156	
1,2,4-Trichlorobenzene	33.3	0.90 U	28.3	85	35-140	
1,2-Dibromo-3-Chloropropane	33.3	1.6 U	26.6	80	37-139	
Ethylene Dibromide	33.3	0.77 U	30.3	91	64-137	
1,2-Dichlorobenzene	33.3	0.87 U	30.8	92	62-123	
1,2-Dichloroethane	33.3	1.0 U	31.5	95	62-137	
1,2-Dichloropropane	33.3	1.0 U	31.2	94	66-130	
1,3-Dichlorobenzene	33.3	1.1 U	30.6	92	59-122	
1,4-Dichlorobenzene	33.3	0.77 U	30.4	91	60-122	
2-Butanone (MEK)	66.6	3.4 U	47.0	71	38-123	
2-Hexanone	66.6	4.1 U	48.0	72	41-135	
4-Methyl-2-pentanone (MIBK)	66.6	2.4 U	55.4	83	43-143	
Acetone	66.6	5.9 U	38.9	58	28-120	
Benzene	33.3	0.93 U	30.8	93	67-126	
Dichlorobromomethane	33.3	1.0 U	29.3	88	64-127	
Bromoform	33.3	1.4 U	19.3	58	40-149	
Bromomethane	33.3	1.4 U	24.9	75	10-169	
Carbon disulfide	33.3	1.1 U	29.8	89	43-172	
Carbon tetrachloride	33.3	1.2 U	29.3	88	51-154	
Chlorobenzene	33.3	1.1 U	30.5	92	58-128	
Chloroethane	33.3	1.4 U	26.1	78	10-162	
Chloroform	33.3	1.0 U	31.9	96	67-133	
Chloromethane	33.3	1.4 U	27.0	81	30-143	
cis-1,2-Dichloroethene	33.3	66	101	104	64-134	
cis-1,3-Dichloropropene	33.3	0.87 U	28.4	85	58-120	
Chlorodibromomethane	33.3	0.83 U	26.0	78	56-132	
Dichlorodifluoromethane	33.3	1.7 U	24.0	72	16-140	
Ethylbenzene	33.3	0.87 U	30.2	91	66-123	
Isopropylbenzene	33.3	0.70 U	29.8	89	57-132	
Methyl tert-butyl ether	33.3	0.90 U	32.6	98	50-137	
Methylene Chloride	33.3	1.8 U	31.8	96	48-138	
Styrene	33.3	0.77 U	30.2	91	62-131	
Tetrachloroethene	33.3	15	44.1	89	54-138	
Toluene	33.3	0.77 U	30.6	92	63-130	
trans-1,2-Dichloroethene	33.3	3.4	31.1	83	70-137	
trans-1,3-Dichloropropene	33.3	1.0 U	25.3	76	48-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1145.D

Lab ID: 200-37906-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Trichloroethene	33.3	7.9	39.0	94	58-139	
Trichlorofluoromethane	33.3	1.7 U	28.8	86	26-175	
Vinyl chloride	33.3	1.5 U	28.0	84	38-147	
Xylenes, Total	66.6	0.80 U	60.6	91	60-126	
m-Xylene & p-Xylene	33.3	0.80 U	29.7	89	58-127	
o-Xylene	33.3	0.93 U	30.9	93	61-126	
1,2,3-Trichlorobenzene	33.3	1.2 U	28.7	86	40-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1534.D

Lab ID: 240-77450-B-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	2000	23 U	1730	86	55-150	
1,1,2,2-Tetrachloroethane	2000	32 U	2040	102	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	2000	41 U	1760	88	41-149	
1,1,2-Trichloroethane	2000	34 U	2060	103	65-130	
1,1-Dichloroethane	2000	25 U	1690	84	57-135	
1,1-Dichloroethene	2000	27 U	1890	95	50-156	
1,2,4-Trichlorobenzene	2000	27 U	1980	99	35-140	
1,2-Dibromo-3-Chloropropane	2000	47 U	1880	94	37-139	
Ethylene Dibromide	2000	23 U	1950	98	64-137	
1,2-Dichlorobenzene	2000	26 U	2030	102	62-123	
1,2-Dichloroethane	2000	30 U	1730	86	62-137	
1,2-Dichloropropane	2000	30 U	1730	86	66-130	
1,3-Dichlorobenzene	2000	32 U	1940	97	59-122	
1,4-Dichlorobenzene	2000	23 U	1950	97	60-122	
2-Butanone (MEK)	4000	3900	7030	78	38-123	
2-Hexanone	4000	120 U	4760	119	41-135	
4-Methyl-2-pentanone (MIBK)	4000	430 J	3800	84	43-143	
Acetone	4000	5600	8280	67	28-120	
Benzene	2000	28 U	1720	86	67-126	
Dichlorobromomethane	2000	30 U	1680	84	64-127	
Bromoform	2000	43 U	1740	87	40-149	
Bromomethane	2000	42 U	1740	87	10-169	
Carbon disulfide	2000	34 U	1750	88	43-172	
Carbon tetrachloride	2000	35 U	1660	83	51-154	
Chlorobenzene	2000	32 U	1890	94	58-128	
Chloroethane	2000	41 U	1920	96	10-162	
Chloroform	2000	31 U	1670	84	67-133	
Chloromethane	2000	43 U	1560	78	30-143	
cis-1,2-Dichloroethene	2000	30 U	1710	85	64-134	
cis-1,3-Dichloropropene	2000	26 U	1620	81	58-120	
Cyclohexane	2000	44 U	1760	88	36-144	
Chlorodibromomethane	2000	25 U	1830	92	56-132	
Dichlorodifluoromethane	2000	50 U	1570	79	16-140	
Ethylbenzene	2000	28 J	2020	100	66-123	
Isopropylbenzene	2000	21 U	1940	97	57-132	
Methyl acetate	4000	140 U	3440	86	46-135	
Methyl tert-butyl ether	2000	27 U	1680	84	50-137	
Methylcyclohexane	2000	45 U	1860	93	31-139	
Methylene Chloride	2000	53 U	1640	82	48-138	
Styrene	2000	23 U	1910	96	62-131	
Tetrachloroethene	2000	30 U	2050	102	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1534.D

Lab ID: 240-77450-B-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	2000	75 J	2040	98	63-130	
trans-1,2-Dichloroethene	2000	29 U	1790	89	70-137	
trans-1,3-Dichloropropene	2000	31 U	1820	91	48-120	
Trichloroethene	2000	33 U	1670	83	58-139	
Trichlorofluoromethane	2000	50 U	1840	92	26-175	
Vinyl chloride	2000	45 U	1750	87	38-147	
Xylenes, Total	4000	70 J	3990	98	60-126	
m-Xylene & p-Xylene	2000	70 J	2010	97	58-127	
o-Xylene	2000	28 U	1980	99	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962971.D

Lab ID: 240-77416-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	200	2.3 U	191	95	55-150	
1,1,2,2-Tetrachloroethane	200	3.2 U	182	91	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	200	4.1 U	164	82	41-149	
1,1,2-Trichloroethane	200	3.4 U	183	91	65-130	
1,1-Dichloroethane	200	2.5 U	194	97	57-135	
1,1-Dichloroethene	200	2.7 U	201	101	50-156	
1,2,4-Trichlorobenzene	200	320	468	73	35-140	
1,2-Dibromo-3-Chloropropane	200	4.7 U	149	74	37-139	
Ethylene Dibromide	200	2.3 U	178	89	64-137	
1,2-Dichlorobenzene	200	18	194	88	62-123	
1,2-Dichloroethane	200	400	564	83	62-137	
1,2-Dichloropropane	200	4.2 J	209	103	66-130	
1,3-Dichlorobenzene	200	7.2 J	187	90	59-122	
1,4-Dichlorobenzene	200	51	226	87	60-122	
2-Butanone (MEK)	400	10 U	406	102	38-123	
2-Hexanone	400	12 U	386	96	41-135	
4-Methyl-2-pentanone (MIBK)	400	7.1 U	400	100	43-143	
Acetone	400	18 U	322	81	28-120	
Benzene	200	2.8 U	212	106	67-126	
Dichlorobromomethane	200	3.0 U	192	96	64-127	
Bromoform	200	4.3 U	182	91	40-149	
Bromomethane	200	4.2 U	211	106	10-169	
Carbon disulfide	200	3.4 U	159	79	43-172	
Carbon tetrachloride	200	3.5 U	177	88	51-154	
Chlorobenzene	200	120	297	88	58-128	
Chloroethane	200	4.1 U	223	111	10-162	
Chloroform	200	3.1 U	208	104	67-133	
Chloromethane	200	4.3 U	195	98	30-143	
cis-1,2-Dichloroethene	200	3.0 U	193	97	64-134	
cis-1,3-Dichloropropene	200	2.6 U	209	105	58-120	
Cyclohexane	200	4.4 U	176	88	36-144	
Chlorodibromomethane	200	2.5 U	169	85	56-132	
Dichlorodifluoromethane	200	5.0 U	158	79	16-140	
Ethylbenzene	200	2.6 U	180	90	66-123	
Isopropylbenzene	200	2.1 U	180	90	57-132	
Methyl acetate	400	14 U	378	94	46-135	
Methyl tert-butyl ether	200	2.7 U	187	93	50-137	
Methylcyclohexane	200	4.5 U	152	76	31-139	
Methylene Chloride	200	26	221	97	48-138	
Styrene	200	2.3 U	183	92	62-131	
Tetrachloroethene	200	3.0 U	191	96	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962971.D

Lab ID: 240-77416-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	200	2.3 U	182	91	63-130	
trans-1,2-Dichloroethene	200	2.9 U	218	109	70-137	
trans-1,3-Dichloropropene	200	3.1 U	162	81	48-120	
Trichloroethene	200	6.1 J	197	95	58-139	
Trichlorofluoromethane	200	180	361	91	26-175	
Vinyl chloride	200	4.5 U	205	102	38-147	
Xylenes, Total	400	2.4 U	357	89	60-126	
m-Xylene & p-Xylene	200	2.4 U	177	88	58-127	
o-Xylene	200	2.8 U	180	90	61-126	
1,2,3-Trichlorobenzene	200	76	223	74	40-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1146.D

Lab ID: 200-37906-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	33.3	33.1	99	6	35	55-150	
1,1,2,2-Tetrachloroethane	33.3	31.8	95	7	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	33.3	26.9	81	21	35	41-149	
1,1,2-Trichloroethane	33.3	34.5	104	5	35	65-130	
1,1-Dichloroethane	33.3	33.2	100	7	35	57-135	
1,1-Dichloroethene	33.3	31.9	96	2	35	50-156	
1,2,4-Trichlorobenzene	33.3	29.4	88	4	35	35-140	
1,2-Dibromo-3-Chloropropane	33.3	28.5	86	7	35	37-139	
Ethylene Dibromide	33.3	32.2	97	6	35	64-137	
1,2-Dichlorobenzene	33.3	33.5	101	9	35	62-123	
1,2-Dichloroethane	33.3	34.0	102	7	35	62-137	
1,2-Dichloropropane	33.3	33.9	102	8	35	66-130	
1,3-Dichlorobenzene	33.3	32.0	96	4	35	59-122	
1,4-Dichlorobenzene	33.3	32.6	98	7	35	60-122	
2-Butanone (MEK)	66.6	51.4	77	9	35	38-123	
2-Hexanone	66.6	50.7	76	5	35	41-135	
4-Methyl-2-pentanone (MIBK)	66.6	58.4	88	5	35	43-143	
Acetone	66.6	43.6	65	11	35	28-120	
Benzene	33.3	33.6	101	9	31	67-126	
Dichlorobromomethane	33.3	32.7	98	11	35	64-127	
Bromoform	33.3	20.4	61	5	35	40-149	
Bromomethane	33.3	27.3	82	9	35	10-169	
Carbon disulfide	33.3	30.8	92	3	35	43-172	
Carbon tetrachloride	33.3	31.9	96	8	35	51-154	
Chlorobenzene	33.3	32.9	99	7	35	58-128	
Chloroethane	33.3	28.3	85	8	35	10-162	
Chloroform	33.3	34.0	102	6	35	67-133	
Chloromethane	33.3	26.8	81	1	35	30-143	
cis-1,2-Dichloroethene	33.3	105	116	4	35	64-134	
cis-1,3-Dichloropropene	33.3	30.9	93	8	35	58-120	
Chlorodibromomethane	33.3	28.5	86	9	35	56-132	
Dichlorodifluoromethane	33.3	25.3	76	5	35	16-140	
Ethylbenzene	33.3	32.9	99	9	34	66-123	
Isopropylbenzene	33.3	32.0	96	7	35	57-132	
Methyl tert-butyl ether	33.3	35.1	105	7	35	50-137	
Methylene Chloride	33.3	34.1	102	7	35	48-138	
Styrene	33.3	32.0	96	6	35	62-131	
Tetrachloroethene	33.3	46.7	97	6	35	54-138	
Toluene	33.3	32.7	98	7	33	63-130	
trans-1,2-Dichloroethene	33.3	33.5	90	7	25	70-137	
trans-1,3-Dichloropropene	33.3	28.0	84	10	35	48-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1146.D

Lab ID: 200-37906-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Trichloroethene	33.3	41.6	101	6	35	58-139	
Trichlorofluoromethane	33.3	29.6	89	3	35	26-175	
Vinyl chloride	33.3	28.9	87	3	35	38-147	
Xylenes, Total	66.6	64.5	97	6	35	60-126	
m-Xylene & p-Xylene	33.3	32.0	96	7	35	58-127	
o-Xylene	33.3	32.5	98	5	35	61-126	
1,2,3-Trichlorobenzene	33.3	30.2	91	5	35	40-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1535.D

Lab ID: 240-77450-B-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	2000	1730	86	0	35	55-150	
1,1,2,2-Tetrachloroethane	2000	2060	103	1	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	2000	1510	75	15	35	41-149	
1,1,2-Trichloroethane	2000	2050	103	0	35	65-130	
1,1-Dichloroethane	2000	1730	87	2	35	57-135	
1,1-Dichloroethene	2000	1790	89	6	35	50-156	
1,2,4-Trichlorobenzene	2000	2000	100	1	35	35-140	
1,2-Dibromo-3-Chloropropane	2000	1860	93	1	35	37-139	
Ethylene Dibromide	2000	1990	99	2	35	64-137	
1,2-Dichlorobenzene	2000	2020	101	0	35	62-123	
1,2-Dichloroethane	2000	1730	87	0	35	62-137	
1,2-Dichloropropane	2000	1820	91	5	35	66-130	
1,3-Dichlorobenzene	2000	1990	99	3	35	59-122	
1,4-Dichlorobenzene	2000	1990	100	2	35	60-122	
2-Butanone (MEK)	4000	6890	74	2	35	38-123	
2-Hexanone	4000	4570	114	4	35	41-135	
4-Methyl-2-pentanone (MIBK)	4000	3780	84	0	35	43-143	
Acetone	4000	8040	61	3	35	28-120	
Benzene	2000	1770	88	3	31	67-126	
Dichlorobromomethane	2000	1740	87	3	35	64-127	
Bromoform	2000	1700	85	3	35	40-149	
Bromomethane	2000	1760	88	1	35	10-169	
Carbon disulfide	2000	1680	84	4	35	43-172	
Carbon tetrachloride	2000	1640	82	1	35	51-154	
Chlorobenzene	2000	1940	97	3	35	58-128	
Chloroethane	2000	1830	91	5	35	10-162	
Chloroform	2000	1740	87	4	35	67-133	
Chloromethane	2000	1570	79	1	35	30-143	
cis-1,2-Dichloroethene	2000	1750	88	2	35	64-134	
cis-1,3-Dichloropropene	2000	1700	85	5	35	58-120	
Cyclohexane	2000	1560	78	13	35	36-144	
Chlorodibromomethane	2000	1880	94	3	35	56-132	
Dichlorodifluoromethane	2000	1330	66	17	35	16-140	
Ethylbenzene	2000	2030	100	0	34	66-123	
Isopropylbenzene	2000	1980	99	2	35	57-132	
Methyl acetate	4000	3450	86	0	34	46-135	
Methyl tert-butyl ether	2000	1710	85	2	35	50-137	
Methylcyclohexane	2000	1640	82	13	35	31-139	
Methylene Chloride	2000	1680	84	2	35	48-138	
Styrene	2000	1950	97	2	35	62-131	
Tetrachloroethene	2000	2010	100	2	35	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1535.D

Lab ID: 240-77450-B-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	2000	2090	101	2	33	63-130	
trans-1,2-Dichloroethene	2000	1800	90	1	25	70-137	
trans-1,3-Dichloropropene	2000	1840	92	1	35	48-120	
Trichloroethene	2000	1730	87	4	35	58-139	
Trichlorofluoromethane	2000	1560	78	16	35	26-175	
Vinyl chloride	2000	1660	83	5	35	38-147	
Xylenes, Total	4000	4040	99	1	35	60-126	
m-Xylene & p-Xylene	2000	2050	99	2	35	58-127	
o-Xylene	2000	1990	100	0	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962972.D

Lab ID: 240-77416-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	200	196	98	3	35	55-150	
1,1,2,2-Tetrachloroethane	200	180	90	1	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	200	176	88	7	35	41-149	
1,1,2-Trichloroethane	200	196	98	7	35	65-130	
1,1-Dichloroethane	200	192	96	1	35	57-135	
1,1-Dichloroethene	200	210	105	4	35	50-156	
1,2,4-Trichlorobenzene	200	445	61	5	35	35-140	
1,2-Dibromo-3-Chloropropane	200	156	78	5	35	37-139	
Ethylene Dibromide	200	180	90	1	35	64-137	
1,2-Dichlorobenzene	200	188	85	3	35	62-123	
1,2-Dichloroethane	200	559	81	1	35	62-137	
1,2-Dichloropropane	200	218	107	4	35	66-130	
1,3-Dichlorobenzene	200	183	88	2	35	59-122	
1,4-Dichlorobenzene	200	221	85	2	35	60-122	
2-Butanone (MEK)	400	417	104	3	35	38-123	
2-Hexanone	400	389	97	1	35	41-135	
4-Methyl-2-pentanone (MIBK)	400	407	102	2	35	43-143	
Acetone	400	323	81	0	35	28-120	
Benzene	200	212	106	0	31	67-126	
Dichlorobromomethane	200	196	98	2	35	64-127	
Bromoform	200	190	95	4	35	40-149	
Bromomethane	200	203	102	4	35	10-169	
Carbon disulfide	200	163	82	3	35	43-172	
Carbon tetrachloride	200	185	92	4	35	51-154	
Chlorobenzene	200	298	88	0	35	58-128	
Chloroethane	200	221	111	1	35	10-162	
Chloroform	200	209	104	1	35	67-133	
Chloromethane	200	196	98	1	35	30-143	
cis-1,2-Dichloroethene	200	197	99	2	35	64-134	
cis-1,3-Dichloropropene	200	211	106	1	35	58-120	
Cyclohexane	200	191	96	8	35	36-144	
Chlorodibromomethane	200	174	87	3	35	56-132	
Dichlorodifluoromethane	200	163	82	3	35	16-140	
Ethylbenzene	200	188	94	4	34	66-123	
Isopropylbenzene	200	192	96	7	35	57-132	
Methyl acetate	400	384	96	2	34	46-135	
Methyl tert-butyl ether	200	196	98	5	35	50-137	
Methylcyclohexane	200	183	91	18	35	31-139	
Methylene Chloride	200	219	96	1	35	48-138	
Styrene	200	195	97	6	35	62-131	
Tetrachloroethene	200	191	95	0	35	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962972.D

Lab ID: 240-77416-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	200	186	93	2	33	63-130	
trans-1,2-Dichloroethene	200	212	106	3	25	70-137	
trans-1,3-Dichloropropene	200	163	81	0	35	48-120	
Trichloroethene	200	195	95	1	35	58-139	
Trichlorofluoromethane	200	352	86	3	35	26-175	
Vinyl chloride	200	203	101	1	35	38-147	
Xylenes, Total	400	372	93	4	35	60-126	
m-Xylene & p-Xylene	200	185	92	4	35	58-127	
o-Xylene	200	187	93	4	35	61-126	
1,2,3-Trichlorobenzene	200	212	68	5	35	40-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab File ID: UXJ1124.D Lab Sample ID: MB 240-272768/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX11 Date Analyzed: 03/31/2017 11:44

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-272768/4	UXJ1121.D	03/31/2017 10:35
TB-032817	240-77377-1	UXJ1144.D	03/31/2017 19:18
	200-37906-B-3 MS	UXJ1145.D	03/31/2017 19:41
	200-37906-B-3 MSD	UXJ1146.D	03/31/2017 20:04

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272768/6

Matrix: Water | Lab File ID: UXJ1124.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272768/6

Matrix: Water | Lab File ID: UXJ1124.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab File ID: UXM1529.D Lab Sample ID: MB 240-273345/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 04/05/2017 10:26

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-273345/4	UXM1526.D	04/05/2017 09:17
	240-77450-B-4 MS	UXM1534.D	04/05/2017 12:50
	240-77450-B-4 MSD	UXM1535.D	04/05/2017 13:13
MRC-MW101A-032817	240-77377-2	UXM1537.D	04/05/2017 14:02
MRC-MW101B-032817	240-77377-3	UXM1538.D	04/05/2017 14:25
MRC-MW102A-032817	240-77377-4	UXM1539.D	04/05/2017 14:49
MRC-MW79B-032817	240-77377-6	UXM1540.D	04/05/2017 15:12
MRC-DUP04-032817	240-77377-7	UXM1541.D	04/05/2017 15:35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-273345/7

Matrix: Water | Lab File ID: UXM1529.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 10:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-273345/7

Matrix: Water | Lab File ID: UXM1529.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/05/2017 10:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273345 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-124
1868-53-7	Dibromofluoromethane (Surr)	87		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab File ID: UX962960.D Lab Sample ID: MB 240-273734/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/07/2017 10:28

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-273734/4	UX962957.D	04/07/2017 09:16
MRC-MW102A-032817	240-77377-4	UX962964.D	04/07/2017 12:58
MRC-DUP04-032817	240-77377-7	UX962965.D	04/07/2017 13:21
	240-77416-B-3 MS	UX962971.D	04/07/2017 15:44
	240-77416-B-3 MSD	UX962972.D	04/07/2017 16:08

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77377-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-273734/7

Matrix: Water | Lab File ID: UX962960.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 10:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
110-82-7	Cyclohexane	0.44	U	1.0	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		63-132

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab File ID: BFB70329.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX11 BFB Injection Time: 09:21

Analysis Batch No.: 272388

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	43.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	97.7	
175	5.0 - 9.0 % of mass 174	6.7	(6.9) 1
176	95.0 - 101.0 % of mass 174	95.7	(97.9) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272388/2	UXJ1042.D	03/29/2017	09:53
	STD8260 240-272388/3	UXJ1043.D	03/29/2017	10:15
	STD8260 240-272388/4	UXJ1044.D	03/29/2017	10:38
	STD8260 240-272388/5	UXJ1045.D	03/29/2017	11:01
	STD8260 240-272388/6	UXJ1046.D	03/29/2017	11:24
	STD8260 240-272388/7	UXJ1047.D	03/29/2017	11:46
	STD6 240-272388/8	UXJ1049.D	03/29/2017	12:31
	STD5 240-272388/9	UXJ1050.D	03/29/2017	12:54
	STD4 240-272388/10	UXJ1051.D	03/29/2017	13:16
	STD3 240-272388/11	UXJ1052.D	03/29/2017	13:39
	STD2 240-272388/12	UXJ1053.D	03/29/2017	14:02
	STD1 240-272388/13	UXJ1054.D	03/29/2017	14:24
	ICV 240-272388/15	UXJ1055.D	03/29/2017	14:47
	ICV 240-272388/14	UXJ1056.D	03/29/2017	15:09

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272388/7	UXJ1047.D
Level 2	STD8260 240-272388/6	UXJ1046.D
Level 3	STD8260 240-272388/5	UXJ1045.D
Level 4	STD8260 240-272388/4	UXJ1044.D
Level 5	STD8260 240-272388/3	UXJ1043.D
Level 6	STD8260 240-272388/2	UXJ1042.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1603 0.1921	0.1584	0.1613	0.1577	0.2044	Ave		0.1724			0.1000	11.9		20.0			
Chloromethane	0.2491 0.2109	0.2162	0.2162	0.2125	0.2167	Ave		0.2203			0.1000	6.5		20.0			
Vinyl chloride	0.2103 0.2025	0.2093	0.2060	0.2048	0.2103	Ave		0.2072			0.1000	1.6		20.0			
Butadiene	0.2056 0.1636	0.2480	0.1949	0.1967	0.1922	Ave		0.2001				13.7		20.0			
Bromomethane	0.1553 0.0933	0.1256	0.1058	0.0931	0.0957	Lin1	0.0644	0.0913			0.0500				0.9990		0.9900
Chloroethane	0.0971 0.1004	0.0998	0.1019	0.1022	0.1044	Ave		0.1010			0.0500	2.5		20.0			
Dichlorofluoromethane	0.3749 0.2550	0.3438	0.2709	0.2723	0.2754	Ave		0.2987				16.2		20.0			
Trichlorofluoromethane	0.1860 0.2357	0.2264	0.2197	0.2191	0.2346	Ave		0.2202			0.1000	8.3		20.0			
Ethyl ether	0.2372 0.2220	0.2254	0.2359	0.2329	0.2374	Ave		0.2318				2.8		20.0			
Acrolein	0.0267 0.0275	0.0209	0.0286	0.0301	0.0297	Ave		0.0272				12.3		20.0			
1,1-Dichloroethene	0.2239 0.2146	0.2383	0.2370	0.2366	0.2233	Ave		0.2290			0.1000	4.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1418 0.1374	0.1710	0.1400	0.1336	0.1320	Ave		0.1426			0.0500	10.1		20.0			
Acetone	0.0899 0.0698	0.0697	0.0777	0.0559	0.0734	Ave		0.0728			0.0100	15.3		20.0			
Iodomethane	0.2762 0.2939	0.3233	0.3405	0.3400	0.3239	Ave		0.3163				8.2		20.0			
Carbon disulfide	0.6049 0.6014	0.6235	0.6432	0.6631	0.6332	Ave		0.6282			0.1000	3.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1541 0.2155	0.1768	0.1947	0.2032	0.2137	Ave		0.1930				12.3		20.0			
Methyl acetate	0.1502 0.1439	0.1483	0.1486	0.1498	0.1534	Ave		0.1490			0.1000	2.1		20.0			
Methylene Chloride	0.4225 0.2443	0.3330	0.2888	0.2680	0.2558	Lin1	0.1884	0.2432			0.1000				1.0000		0.9900
2-Methyl-2-propanol	0.0133 0.0126	0.0144	0.0137	0.0132	0.0136	Ave		0.0135				4.2		20.0			
Acrylonitrile	0.0804 0.0744	0.0752	0.0758	0.0762	0.0786	Ave		0.0768				3.0		20.0			
Methyl tert-butyl ether	0.6853 0.6998	0.6812	0.7122	0.7138	0.7495	Ave		0.7070			0.1000	3.5		20.0			
trans-1,2-Dichloroethene	0.3541 0.2770	0.2899	0.2860	0.2800	0.2806	Ave		0.2946			0.1000	10.0		20.0			
Hexane	0.0647 0.0606	0.0855	0.0650	0.0582	0.0615	Ave		0.0659				15.0		20.0			
1,1-Dichloroethane	0.4828 0.4698	0.4605	0.4785	0.4697	0.4675	Ave		0.4715			0.2000	1.7		20.0			
Vinyl acetate	0.4885 0.4256	0.4150	0.4259	0.4249	0.4476	Ave		0.4379				6.2		20.0			
cis-1,2-Dichloroethene	0.3086 0.3045	0.2831	0.3157	0.3080	0.3059	Ave		0.3043			0.1000	3.6		20.0			
2,2-Dichloropropane	0.2969 0.2429	0.2849	0.2880	0.2767	0.2713	Ave		0.2768				6.8		20.0			
2-Butanone (MEK)	0.0856 0.1002	0.0900	0.0976	0.0889	0.1087	Ave		0.0952			0.0100	9.1		20.0			
Chlorobromomethane	0.1424 0.1414	0.1351	0.1455	0.1402	0.1415	Ave		0.1410				2.4		20.0			
Tetrahydrofuran	0.0584 0.0535	0.0541	0.0553	0.0558	0.0577	Ave		0.0558				3.5		20.0			
Chloroform	0.4596 0.4385	0.4269	0.4516	0.4355	0.4415	Ave		0.4423			0.2000	2.6		20.0			
1,1,1-Trichloroethane	0.3520 0.3112	0.3333	0.3329	0.3290	0.3267	Ave		0.3308			0.1000	4.0		20.0			
Cyclohexane	0.3226 0.3693	0.4157	0.3644	0.3648	0.3705	Ave		0.3679			0.1000	8.0		20.0			
1,1-Dichloropropene	0.3531 0.3655	0.3433	0.3642	0.3628	0.3640	Ave		0.3588				2.5		20.0			
Carbon tetrachloride	0.2696 0.2833	0.2771	0.2852	0.2897	0.2925	Ave		0.2829			0.1000	3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0054 0.0062	0.0056	0.0058	0.0059	0.0070	Ave		0.0060				9.7		20.0			
1,2-Dichloroethane	0.3038 0.3081	0.3005	0.3092	0.3092	0.3114	Ave		0.3070			0.1000	1.3		20.0			
Benzene	1.2544 1.1967	1.1474	1.1805	1.1846	1.1868	Ave		1.1917			0.5000	2.9		20.0			
n-Heptane	0.0588 0.0618	0.0778	0.0537	0.0525	0.0574	Ave		0.0603				15.2		20.0			
Trichloroethene	0.3031 0.2996	0.2845	0.2958	0.3029	0.3024	Ave		0.2980			0.1500	2.4		20.0			
Methylcyclohexane	0.3651 0.3604	0.4206	0.3558	0.3398	0.3500	Ave		0.3653			0.1000	7.8		20.0			
1,2-Dichloropropane	0.2753 0.2798	0.2700	0.2777	0.2773	0.2807	Ave		0.2768			0.1000	1.4		20.0			
Dibromomethane	0.1511 0.1376	0.1410	0.1479	0.1450	0.1454	Ave		0.1447				3.3		20.0			
1,4-Dioxane	0.0006 0.0014	0.0012	0.0017	0.0016	0.0017	Qua	-0.035	0.0020	-0.000001						0.9990		0.9900
Dichlorobromomethane	0.3248 0.3256	0.3060	0.3186	0.3193	0.3277	Ave		0.3203			0.1500	2.5		20.0			
2-Chloroethyl vinyl ether	0.1488 0.1525	0.1435	0.1598	0.1595	0.1611	Ave		0.1542				4.6		20.0			
cis-1,3-Dichloropropene	0.3667 0.4576	0.3819	0.4293	0.4377	0.4543	Ave		0.4213			0.1500	9.1		20.0			
4-Methyl-2-pentanone (MIBK)	0.1897 0.1912	0.1791	0.1957	0.1952	0.2115	Ave		0.1937			0.0500	5.5		20.0			
Toluene	1.7741 1.7554	1.5882	1.7205	1.6569	1.7145	Ave		1.7016			0.4000	4.0		20.0			
trans-1,3-Dichloropropene	0.4332 0.5340	0.4332	0.4862	0.5054	0.5330	Ave		0.4875			0.1000	9.4		20.0			
Ethyl methacrylate	0.4609 0.4782	0.4371	0.4723	0.4791	0.5093	Ave		0.4728				5.0		20.0			
1,1,2-Trichloroethane	0.2737 0.2926	0.2812	0.3069	0.2998	0.3074	Ave		0.2936			0.1000	4.7		20.0			
Tetrachloroethene	0.3257 0.3259	0.3075	0.3204	0.3167	0.3259	Ave		0.3204			0.1500	2.3		20.0			
1,3-Dichloropropane	0.5508 0.5441	0.4982	0.5436	0.5418	0.5561	Ave		0.5391				3.8		20.0			
2-Hexanone	0.1763 0.2095	0.1515	0.2001	0.1850	0.2254	Ave		0.1913			0.0500	13.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2250 0.3372	0.2446	0.2890	0.3106	0.3252	Ave		0.2886				15.6		20.0			
Ethylene Dibromide	0.3157 0.2835	0.2981	0.2940	0.2886	0.2900	Ave		0.2950				3.8		20.0			
Chlorobenzene	1.0772 1.0502	0.9549	1.0420	1.0189	1.0365	Ave		1.0299			0.3000	4.0		20.0			
1,1,1,2-Tetrachloroethane	0.3328 0.3558	0.3181	0.3487	0.3520	0.3500	Ave		0.3429				4.2		20.0			
Ethylbenzene	0.5781 0.5679	0.5240	0.5615	0.5550	0.5641	Ave		0.5585				3.3		20.0			
m-Xylene & p-Xylene	0.7120 0.6936	0.6416	0.6926	0.6836	0.7009	Ave		0.6874				3.5		20.0			
o-Xylene	0.6710 0.6584	0.6124	0.6755	0.6620	0.6659	Ave		0.6575				3.5		20.0			
Styrene	1.1948 1.2052	1.0973	1.2038	1.1677	1.2000	Ave		1.1781			0.3000	3.6		20.0			
Bromoform	0.1088 0.2086	0.1276	0.1561	0.1793	0.2007	Lin1	-0.138	0.2067			0.1000				0.9970		0.9900
Isopropylbenzene	1.5677 1.6128	1.4753	1.5937	1.5519	1.5881	Ave		1.5649			0.1000	3.1		20.0			
1,1,2,2-Tetrachloroethane	0.6626 0.6723	0.6522	0.6683	0.6985	0.7133	Ave		0.6779			0.3000	3.4		20.0			
Bromobenzene	0.9267 0.9186	0.8563	0.8967	0.8864	0.9068	Ave		0.8986				2.8		20.0			
1,2,3-Trichloropropane	0.3173 0.2076	0.2047	0.2131	0.2102	0.2217	Ave		0.2291				19.0		20.0			
trans-1,4-Dichloro-2-butene	0.1101 0.1501	0.1042	0.0985	0.0982	0.1305	Ave		0.1153				18.1		20.0			
N-Propylbenzene	0.9053 0.8876	0.8180	0.8521	0.8411	0.8542	Ave		0.8597				3.7		20.0			
2-Chlorotoluene	0.8878 0.7638	0.7625	0.7958	0.7737	0.7491	Ave		0.7888				6.5		20.0			
1,3,5-Trimethylbenzene	2.4481 2.5421	2.3447	2.4454	2.4236	2.4490	Ave		2.4421				2.6		20.0			
4-Chlorotoluene	0.8789 0.8143	0.8094	0.7888	0.7925	0.7814	Ave		0.8109				4.4		20.0			
tert-Butylbenzene	2.1204 2.1411	2.0019	2.0719	2.0467	2.0821	Ave		2.0774				2.4		20.0			
1,2,4-Trimethylbenzene	2.6319 2.6041	2.4369	2.4811	2.4859	2.5064	Ave		2.5244				3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.7503 2.8029	2.5631	2.6283	2.6548	2.6674	Ave		2.6778				3.2		20.0			
1,3-Dichlorobenzene	1.5265 1.4672	1.3965	1.5191	1.4340	1.4524	Ave		1.4660			0.6000	3.4		20.0			
4-Isopropyltoluene	2.3033 2.4239	2.2080	2.2762	2.2933	2.3300	Ave		2.3058				3.1		20.0			
1,4-Dichlorobenzene	1.5825 1.5295	1.4512	1.5325	1.4911	1.4999	Ave		1.5145			0.5000	2.9		20.0			
n-Butylbenzene	1.9521 1.8489	1.7283	1.8047	1.7726	1.7963	Ave		1.8172				4.2		20.0			
1,2-Dichlorobenzene	1.4123 1.3422	1.2790	1.3396	1.3381	1.3553	Ave		1.3444			0.4000	3.2		20.0			
1,2-Dibromo-3-Chloropropane	0.0941 0.1214	0.1100	0.1123	0.1225	0.1306	Ave		0.1151			0.0500	11.1		20.0			
1,2,4-Trichlorobenzene	0.7459 0.7159	0.6811	0.6942	0.6932	0.6843	Ave		0.7024			0.2000	3.5		20.0			
Hexachlorobutadiene	0.3422 0.3089	0.3100	0.3209	0.3128	0.3015	Ave		0.3161				4.5		20.0			
Naphthalene	1.6223 1.5604	1.4977	1.5542	1.5956	1.6680	Ave		1.5830				3.7		20.0			
1,2,3-Trichlorobenzene	0.5850 0.5964	0.5669	0.5945	0.5957	0.5961	Ave		0.5891				2.0		20.0			
Dibromofluoromethane (Surr)	0.2660 0.2297	0.2382	0.2290	0.2327	0.2318	Ave		0.2379				5.9		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2934 0.2612	0.2774	0.2726	0.2714	0.2754	Ave		0.2752				3.8		20.0			
Toluene-d8 (Surr)	1.4632 1.4815	1.4274	1.4333	1.4143	1.4441	Ave		1.4440				1.7		20.0			
4-Bromofluorobenzene (Surr)	0.5365 0.4571	0.4569	0.4798	0.4735	0.4735	Ave		0.4796				6.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272388/7	UXJ1047.D
Level 2	STD8260 240-272388/6	UXJ1046.D
Level 3	STD8260 240-272388/5	UXJ1045.D
Level 4	STD8260 240-272388/4	UXJ1044.D
Level 5	STD8260 240-272388/3	UXJ1043.D
Level 6	STD8260 240-272388/2	UXJ1042.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	13296 681734	25998	67562	132260	352869	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	20660 748481	35482	90537	178218	374087	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	17443 718830	34348	86257	171711	362930	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	17049 580456	40706	81613	164912	331755	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Lin1	12876 331051	20623	44303	78110	165103	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	8051 356489	16381	42659	85731	180239	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	31089 905166	56424	113439	228322	475355	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	15424 836479	37153	92015	183698	405005	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	19671 787914	36998	98784	195316	409804	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	11079 487144	17152	59928	126023	256546	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	18569 761560	39115	99265	198436	385375	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	11760 487681	28069	58618	112028	227779	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Ave	14913 495754	22885	65104	93795	253482	2.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	22905 1043218	53066	142621	285110	559031	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	50170 2134423	102336	269375	556068	1092988	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	12781 764823	29024	81548	170411	368885	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	62291 2553158	121736	311086	628065	1323531	5.00 200	10.0	25.0	50.0	100
Methylene Chloride	FB	Lin1	35038 867017	54658	120966	224721	441439	1.00 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	10998 448821	23576	57203	110912	234691	10.0 400	20.0	50.0	100	200
Acrylonitrile	FB	Ave	66675 2641918	123389	317322	639099	1357394	10.0 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	56837 2483677	111815	298269	598561	1293685	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	29368 983202	47577	119771	234766	484390	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	5363 215055	14028	27222	48795	106201	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	40042 1667387	75589	200413	393892	806933	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	40516 1510638	68125	178356	356338	772583	1.00 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	25593 1080588	46474	132224	258267	528016	1.00 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	24626 862078	46771	120617	232041	468203	1.00 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	14191 711447	29547	81731	149145	375166	2.00 80.0	4.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	11807 501840	22182	60954	117536	244293	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	9681 379736	17749	46304	93601	199297	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	38116 1556243	70078	189135	365157	761966	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	29189 1104352	54709	139406	275890	563848	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	26757 1310784	68239	152601	305938	639521	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	29286 1297288	56343	152512	304200	628294	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	22357 1005420	45485	119435	242928	504873	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	CBNZ d5	Ave	8338 402113	17056	44497	91571	224437	25.0 1000	50.0	125	250	500
1,2-Dichloroethane	FB	Ave	25194 1093528	49329	129482	259275	537398	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	104033 4247251	188332	494386	993388	2048384	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	4876 219360	12774	22508	44066	98987	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	25133 1063441	46700	123863	253972	521953	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	30277 1279075	69040	149011	284955	604141	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	22831 992918	44317	116287	232565	484566	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	12534 488277	23143	61938	121607	250922	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Qua	927 100656	3813	13831	27131	58731	20.0 800	40.0	100	200	400
Dichlorobromomethane	FB	Ave	26937 1155511	50230	133417	267771	565671	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	24680 1082725	47093	133883	267431	556035	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	30410 1624017	62692	179807	367076	784119	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	31457 1357301	58782	163899	327362	730086	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	109145 4567124	194889	530832	1031697	2191414	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	26651 1389302	53153	150012	314702	681304	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	28353 1244128	53639	145715	298342	650926	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	16836 761137	34504	94674	186671	392928	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	20040 847928	37727	98861	197186	416588	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	33887 1415488	61134	167708	337348	710712	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	21690 1089861	37185	123466	230342	576277	2.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	13844 877283	30011	89177	193423	415610	1.00 40.0	2.00	5.00	10.0	20.0
Ethylene Dibromide	CBNZ d5	Ave	19424 737488	36584	90700	179729	370604	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	66269 2732295	117180	321475	634459	1324749	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	20472 925643	39029	107582	219166	447332	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	35568 1477483	64300	173234	345613	721042	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	43805 1804637	78729	213687	425662	895841	1.00 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBNZ d5	Ave	41282 1713004	75141	208399	412193	851108	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	73508 3135561	134644	371410	727088	1533742	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Lin1	6693 542742	15653	48159	111629	256548	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	96449 4195929	181034	491703	966365	2029796	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	19597 815175	37780	101504	211326	440909	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	27410 1113798	49607	136187	268154	560541	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	9386 251702	11860	32365	63589	137063	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	3257 182047	6038	14967	29723	80679	1.00 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	26775 1076221	47389	129409	254453	528015	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	26259 926158	44172	120858	234076	463063	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	72407 3082345	135827	371399	733204	1513826	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	25996 987428	46888	119796	239750	483033	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCBd 4	Ave	62716 2596141	115971	314678	619179	1287034	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	77843 3157571	141169	376818	752076	1549282	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	81345 3398671	148480	399186	803176	1648832	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	45150 1779043	80902	230723	433841	897766	1.00 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	68125 2939119	127909	345712	693788	1440244	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	46805 1854614	84070	232754	451098	927154	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	57737 2241904	100123	274095	536269	1110385	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	41770 1627473	74095	203462	404814	837747	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2782 147239	6373	17054	37053	80725	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	22060 868088	39458	105430	209702	423012	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Ave	10122 374507	17958	48745	94631	186376	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	47981 1892003	86764	236052	482735	1031066	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	17303 723200	32841	90288	180228	368452	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	22057 815354	39103	95916	195142	400040	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	24336 927115	45534	114155	227621	475303	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	90015 3854391	175158	442229	880637	1845750	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	33009 1189305	56067	148021	294831	605220	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 12:31 Calibration End Date: 03/29/2017 14:24 Calibration ID: 39177

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-272388/13	UXJ1054.D
Level 2	STD2 240-272388/12	UXJ1053.D
Level 3	STD3 240-272388/11	UXJ1052.D
Level 4	STD4 240-272388/10	UXJ1051.D
Level 5	STD5 240-272388/9	UXJ1050.D
Level 6	STD6 240-272388/8	UXJ1049.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0177 0.0192	0.0183	0.0174	0.0175	0.0187	Ave		0.0181				4.0		20.0			
Isopropyl ether	0.2504 0.2743	0.2527	0.2649	0.2630	0.2649	Ave		0.2617				3.4		20.0			
2-Chloro-1,3-butadiene	0.4822 0.4590	0.4644	0.4565	0.4414	0.4465	Ave		0.4583				3.1		20.0			
Tert-butyl ethyl ether	0.8190 0.8783	0.8155	0.8407	0.8244	0.8449	Ave		0.8371				2.8		20.0			
Ethyl acetate	0.2094 0.1991	0.1864	0.1900	0.1839	0.1924	Ave		0.1936				4.9		20.0			
Propionitrile	0.0233 0.0251	0.0240	0.0245	0.0235	0.0244	Ave		0.0241				2.8		20.0			
Methacrylonitrile	0.1310 0.1426	0.1323	0.1303	0.1287	0.1345	Ave		0.1333				3.7		20.0			
Tert-amyl methyl ether	0.7290 0.8063	0.7294	0.7543	0.7328	0.7718	Ave		0.7539				4.1		20.0			
n-Butanol	0.0054 0.0043	0.0056	0.0053	0.0049	0.0052	Ave		0.0051				9.0		20.0			
Ethyl acrylate	0.3056 0.3065	0.2876	0.2823	0.2856	0.2944	Ave		0.2937				3.5		20.0			
Methyl methacrylate	0.2016 0.2089	0.2030	0.2018	0.1933	0.2019	Ave		0.2018				2.5		20.0			
2-Nitropropane	0.0460 0.0498	0.0547	0.0494	0.0467	0.0477	Ave		0.0491				6.4		20.0			
n-Butyl acetate	0.3308 0.3553	0.3267	0.3137	0.3184	0.3402	Ave		0.3308				4.6		20.0			
1-Chlorohexane	0.4951 0.4554	0.4882	0.4566	0.4410	0.4395	Ave		0.4626				5.1		20.0			
Cyclohexanone	0.0203 0.0112	0.0160	0.0142	0.0126	0.0129	Lin1	0.0975	0.0115							0.9960		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 12:31 Calibration End Date: 03/29/2017 14:24 Calibration ID: 39177

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1862 0.2182	0.1804	0.1963	0.1900	0.2053	Lin1	-0.106	0.2126							0.9980		0.9900
1,2,3-Trimethylbenzene	2.4872 2.6199	2.3926	2.5984	2.4932	2.5689	Ave		2.5267				3.4		20.0			
Benzyl chloride	0.3185 0.3337	0.2902	0.3197	0.3054	0.3297	Lin1	-0.045	0.3303							0.9990		0.9900
1,3,5-Trichlorobenzene	0.8421 0.8033	0.7516	0.8419	0.7982	0.7756	Ave		0.8021				4.5		20.0			
2-Methylnaphthalene	1.0018 0.8689	0.9813	0.9552	0.9202	0.9360	Ave		0.9439				5.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 12:31 Calibration End Date: 03/29/2017 14:24 Calibration ID: 39177

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-272388/13	UXJ1054.D
Level 2	STD2 240-272388/12	UXJ1053.D
Level 3	STD3 240-272388/11	UXJ1052.D
Level 4	STD4 240-272388/10	UXJ1051.D
Level 5	STD5 240-272388/9	UXJ1050.D
Level 6	STD6 240-272388/8	UXJ1049.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	15132 631234	30797	72097	146397	318822	10.0 400	20.0	50.0	100	200
Isopropyl ether	FB	Ave	21349 902645	42502	109934	220466	451628	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	41110 1510425	78092	189417	370030	761262	1.00 40.0	2.00	5.00	10.0	20.0
Tert-butyl ethyl ether	FB	Ave	69828 2889981	137149	348831	691046	1440621	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl acetate	FB	Ave	35713 1310493	62692	157672	308374	656194	2.00 80.0	4.00	10.0	20.0	40.0
Propionitrile	FB	Ave	19829 825410	40346	101708	196979	415751	10.0 400	20.0	50.0	100	200
Methacrylonitrile	FB	Ave	111730 4692479	222561	540748	1078529	2293822	10.0 400	20.0	50.0	100	200
Tert-amyl methyl ether	FB	Ave	62158 2653002	122660	312965	614298	1316028	1.00 40.0	2.00	5.00	10.0	20.0
n-Butanol	CBNZ d5	Ave	8546 267678	17639	40587	76560	164583	25.0 1000	50.0	125	250	500
Ethyl acrylate	FB	Ave	26055 1008635	48364	117137	239421	501994	1.00 40.0	2.00	5.00	10.0	20.0
Methyl methacrylate	FB	Ave	34381 1375051	68271	167500	324031	688392	2.00 80.0	4.00	10.0	20.0	40.0
2-Nitropropane	FB	Ave	7847 327993	18391	41006	78247	162640	2.00 80.0	4.00	10.0	20.0	40.0
n-Butyl acetate	FB	Ave	28205 1169173	54942	130164	266868	580050	1.00 40.0	2.00	5.00	10.0	20.0
1-Chlorohexane	CBNZ d5	Ave	31198 1127223	61358	138818	275277	555916	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexanone	DCBd 4	Lin1	5993 133445	9578	20785	38093	78273	10.0 400	20.0	50.0	100	200
Pentachloroethane	CBNZ d5	Lin1	23470 1080371	45335	119365	237164	519494	2.00 80.0	4.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 12:31 Calibration End Date: 03/29/2017 14:24 Calibration ID: 39177

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	73479 3123461	143189	379127	752408	1563647	1.00 40.0	2.00	5.00	10.0	20.0
Benzyl chloride	DCBd 4	Lin1	9409 397810	17369	46651	92153	200688	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	24879 957670	44979	122834	240897	472075	1.00 40.0	2.00	5.00	10.0	20.0
2-Methylnaphthalene	DCBd 4	Ave	59192 2071859	117449	278752	555407	1139427	2.00 80.0	4.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-272388/15 Calibration Date: 03/29/2017 14:47

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1055.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2379	0.1992		0.0100	0.0120	-16.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2138		0.00929	0.0120	-22.3*	20.0
Toluene-d8 (Surr)	Ave	1.444	1.204		0.00997	0.0120	-16.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.4028		0.0100	0.0120	-16.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-272388/15 Calibration Date: 03/29/2017 14:47

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 12:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 14:24

Lab File ID: UXJ1055.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0181	0.0162		0.0895	0.100	-10.5	20.0
Isopropyl ether	Ave	0.2617	0.2631		0.0101	0.0100	0.5	20.0
2-Chloro-1,3-butadiene	Ave	0.4583	0.4307		0.00940	0.0100	-6.0	20.0
Tert-butyl ethyl ether	Ave	0.8371	0.7949		0.00950	0.0100	-5.0	20.0
Ethyl acetate	Ave	0.1936	0.1718		0.0178	0.0200	-11.2	50.0
Propionitrile	Ave	0.0241	0.0220		0.0913	0.100	-8.7	20.0
Methacrylonitrile	Ave	0.1333	0.1221		0.0916	0.100	-8.4	20.0
Tert-amyl methyl ether	Ave	0.7539	0.7317		0.00970	0.0100	-3.0	20.0
n-Butanol	Ave	0.0051	0.0033		0.162	0.250	-35.1*	20.0
Ethyl acrylate	Ave	0.2937	0.2711		0.00923	0.0100	-7.7	20.0
Methyl methacrylate	Ave	0.2018	0.1859		0.0184	0.0200	-7.8	20.0
2-Nitropropane	Ave	0.0491	0.0453		0.0185	0.0200	-7.7	20.0
n-Butyl acetate	Ave	0.3308	0.2978		0.00900	0.0100	-10.0	30.0
1-Chlorohexane	Ave	0.4626	0.4255		0.00920	0.0100	-8.0	20.0
Cyclohexanone	Lin1		0.0086		0.0665	0.100	-33.5*	20.0
Pentachloroethane	Lin1		0.1984		0.0192	0.0200	-4.2	20.0
1,2,3-Trimethylbenzene	Ave	2.527	2.416		0.00956	0.0100	-4.4	20.0
Benzyl chloride	Lin1		0.2778		0.00855	0.0100	-14.5	20.0
1,3,5-Trichlorobenzene	Ave	0.8021	0.7284		0.00908	0.0100	-9.2	20.0
2-Methylnaphthalene	Ave	0.9439	0.6804		0.0144	0.0200	-27.9*	20.0

ICV %D 50%

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1724	0.1520	0.1000	0.00882	0.0100	-11.8	20.0
Chloromethane	Ave	0.2203	0.1934	0.1000	0.00878	0.0100	-12.2	20.0
Vinyl chloride	Ave	0.2072	0.1812	0.1000	0.00875	0.0100	-12.5	20.0
Butadiene	Ave	0.2001	0.1707		0.00853	0.0100	-14.7	30.0
Bromomethane	Lin1		0.0803	0.0500	0.00808	0.0100	-19.2	20.0
Chloroethane	Ave	0.1010	0.0911	0.0500	0.00903	0.0100	-9.7	20.0
Dichlorofluoromethane	Ave	0.2987	0.2255		0.00755	0.0100	-24.5*	20.0
Trichlorofluoromethane	Ave	0.2202	0.1985	0.1000	0.00901	0.0100	-9.9	20.0
Ethyl ether	Ave	0.2318	0.2049		0.00884	0.0100	-11.6	20.0
Acrolein	Ave	0.0272	0.0288		0.0529	0.0500	5.7	50.0
1,1-Dichloroethene	Ave	0.2290	0.1927	0.1000	0.00842	0.0100	-15.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1426	0.1116	0.0500	0.00783	0.0100	-21.7*	20.0
Acetone	Ave	0.0728	0.0341	0.0100	0.00937	0.0200	-53.2*	50.0
Iodomethane	Ave	0.3163	0.2412		0.00763	0.0100	-23.7*	20.0
Carbon disulfide	Ave	0.6282	0.5005	0.1000	0.00797	0.0100	-20.3*	20.0
3-Chloro-1-propene	Ave	0.1930	0.1810		0.00938	0.0100	-6.2	20.0
Methyl acetate	Ave	0.1490	0.1241	0.1000	0.0416	0.0500	-16.8	20.0
Methylene Chloride	Lin1		0.2495	0.1000	0.00949	0.0100	-5.1	50.0
2-Methyl-2-propanol	Ave	0.0135	0.0092		0.0686	0.100	-31.4	50.0
Acrylonitrile	Ave	0.0768	0.0647		0.0842	0.100	-15.8	20.0
Methyl tert-butyl ether	Ave	0.7070	0.6302	0.1000	0.00891	0.0100	-10.9	20.0
trans-1,2-Dichloroethene	Ave	0.2946	0.2591	0.1000	0.00879	0.0100	-12.1	20.0
Hexane	Ave	0.0659	0.0491		0.00744	0.0100	-25.6*	20.0
1,1-Dichloroethane	Ave	0.4715	0.4226	0.2000	0.00896	0.0100	-10.4	20.0
Vinyl acetate	Ave	0.4379	0.3731		0.00852	0.0100	-14.8	50.0
2,2-Dichloropropane	Ave	0.2768	0.2325		0.00840	0.0100	-16.0	20.0
2-Butanone (MEK)	Ave	0.0952	0.0659	0.0100	0.0138	0.0200	-30.8*	20.0
cis-1,2-Dichloroethene	Ave	0.3043	0.2828	0.1000	0.00929	0.0100	-7.1	20.0
Chlorobromomethane	Ave	0.1410	0.1239		0.00879	0.0100	-12.1	20.0
Tetrahydrofuran	Ave	0.0558	0.0443		0.0159	0.0200	-20.6*	20.0
Chloroform	Ave	0.4423	0.3996	0.2000	0.00903	0.0100	-9.7	20.0
1,1,1-Trichloroethane	Ave	0.3308	0.2958	0.1000	0.00894	0.0100	-10.6	20.0
Cyclohexane	Ave	0.3679	0.3157	0.1000	0.00858	0.0100	-14.2	20.0
1,1-Dichloropropene	Ave	0.3588	0.3320		0.00925	0.0100	-7.5	20.0
Carbon tetrachloride	Ave	0.2829	0.2512	0.1000	0.00888	0.0100	-11.2	20.0
Isobutyl alcohol	Ave	0.0060	0.0043		0.179	0.250	-28.4*	20.0
1,2-Dichloroethane	Ave	0.3070	0.2757	0.1000	0.00898	0.0100	-10.2	20.0
Benzene	Ave	1.192	1.080	0.5000	0.00906	0.0100	-9.4	20.0
n-Heptane	Ave	0.0603	0.0475		0.00787	0.0100	-21.3*	20.0
Trichloroethene	Ave	0.2980	0.2656	0.1500	0.00891	0.0100	-10.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3653	0.2928	0.1000	0.00802	0.0100	-19.8	20.0
1,2-Dichloropropane	Ave	0.2768	0.2561	0.1000	0.00925	0.0100	-7.5	20.0
Dibromomethane	Ave	0.1447	0.1263		0.00873	0.0100	-12.7	20.0
1,4-Dioxane	Qua		0.0008		0.0990	0.200	-50.5*	50.0
Dichlorobromomethane	Ave	0.3203	0.2954	0.1500	0.00922	0.0100	-7.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1542	0.1392		0.00903	0.0100	-9.7	20.0
cis-1,3-Dichloropropene	Ave	0.4213	0.4040	0.1500	0.00959	0.0100	-4.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1937	0.1614	0.0500	0.0167	0.0200	-16.7	20.0
Toluene	Ave	1.702	1.557	0.4000	0.00915	0.0100	-8.5	20.0
trans-1,3-Dichloropropene	Ave	0.4875	0.4476	0.1000	0.00918	0.0100	-8.2	20.0
Ethyl methacrylate	Ave	0.4728	0.4224		0.00893	0.0100	-10.7	20.0
1,1,2-Trichloroethane	Ave	0.2936	0.2688	0.1000	0.00916	0.0100	-8.4	20.0
Tetrachloroethene	Ave	0.3204	0.2926	0.1500	0.00913	0.0100	-8.7	20.0
1,3-Dichloropropane	Ave	0.5391	0.4881		0.00905	0.0100	-9.5	20.0
2-Hexanone	Ave	0.1913	0.1463	0.0500	0.0153	0.0200	-23.5*	20.0
Chlorodibromomethane	Ave	0.2886	0.2708		0.00938	0.0100	-6.2	20.0
Ethylene Dibromide	Ave	0.2950	0.2590		0.00878	0.0100	-12.2	20.0
Chlorobenzene	Ave	1.030	0.9464	0.3000	0.00919	0.0100	-8.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3429	0.3303		0.00963	0.0100	-3.7	20.0
Ethylbenzene	Ave	0.5585	0.5055		0.00905	0.0100	-9.5	20.0
m-Xylene & p-Xylene	Ave	0.6874	0.6356		0.00925	0.0100	-7.5	20.0
o-Xylene	Ave	0.6575	0.6107		0.00929	0.0100	-7.1	20.0
Styrene	Ave	1.178	1.093	0.3000	0.00928	0.0100	-7.2	20.0
Bromoform	Lin1		0.1552	0.1000	0.00818	0.0100	-18.2	20.0
Isopropylbenzene	Ave	1.565	1.437	0.1000	0.00918	0.0100	-8.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6779	0.6005	0.3000	0.00886	0.0100	-11.4	20.0
Bromobenzene	Ave	0.8986	0.8270		0.00920	0.0100	-8.0	20.0
1,2,3-Trichloropropane	Ave	0.2291	0.1944		0.00848	0.0100	-15.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1153	0.0968		0.00839	0.0100	-16.1	20.0
N-Propylbenzene	Ave	0.8597	0.7745		0.00901	0.0100	-9.9	20.0
2-Chlorotoluene	Ave	0.7888	0.7065		0.00896	0.0100	-10.4	20.0
1,3,5-Trimethylbenzene	Ave	2.442	2.239		0.00917	0.0100	-8.3	20.0
4-Chlorotoluene	Ave	0.8109	0.7310		0.00901	0.0100	-9.9	20.0
tert-Butylbenzene	Ave	2.077	1.870		0.00900	0.0100	-10.0	20.0
1,2,4-Trimethylbenzene	Ave	2.524	2.289		0.00907	0.0100	-9.3	20.0
sec-Butylbenzene	Ave	2.678	2.378		0.00888	0.0100	-11.2	20.0
1,3-Dichlorobenzene	Ave	1.466	1.342	0.6000	0.00916	0.0100	-8.4	20.0
4-Isopropyltoluene	Ave	2.306	2.072		0.00898	0.0100	-10.2	20.0
1,4-Dichlorobenzene	Ave	1.514	1.395	0.5000	0.00921	0.0100	-7.9	20.0
n-Butylbenzene	Ave	1.817	1.579		0.00869	0.0100	-13.1	20.0
1,2-Dichlorobenzene	Ave	1.344	1.222	0.4000	0.00909	0.0100	-9.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1151	0.1007	0.0500	0.00874	0.0100	-12.6	50.0
1,2,4-Trichlorobenzene	Ave	0.7024	0.5999	0.2000	0.00854	0.0100	-14.6	50.0
Hexachlorobutadiene	Ave	0.3161	0.2508		0.00793	0.0100	-20.7*	20.0
Naphthalene	Ave	1.583	1.363		0.00861	0.0100	-13.9	50.0
1,2,3-Trichlorobenzene	Ave	0.5891	0.5323		0.00904	0.0100	-9.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2379	0.1846		0.00928	0.0120	-22.4*	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2096		0.00911	0.0120	-23.9*	20.0
Toluene-d8 (Surr)	Ave	1.444	1.157		0.00958	0.0120	-19.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.3742		0.00933	0.0120	-22.0*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab File ID: BFB70331.D BFB Injection Date: 03/31/2017

Instrument ID: A3UX11 BFB Injection Time: 09:45

Analysis Batch No.: 272768

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.7	
75	30.0 - 60.0 % of mass 95	44.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	93.8	
175	5.0 - 9.0 % of mass 174	6.9	(7.4) 1
176	95.0 - 101.0 % of mass 174	91.8	(97.8) 1
177	5.0 - 9.0 % of mass 176	6.2	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-272768/2	UXJ1120.D	03/31/2017	10:13
	LCS 240-272768/4	UXJ1121.D	03/31/2017	10:35
	CCV 240-272768/3	UXJ1122.D	03/31/2017	10:58
	MB 240-272768/6	UXJ1124.D	03/31/2017	11:44
TB-032817	240-77377-1	UXJ1144.D	03/31/2017	19:18
	200-37906-B-3 MS	UXJ1145.D	03/31/2017	19:41
	200-37906-B-3 MSD	UXJ1146.D	03/31/2017	20:04

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1724	0.2005	0.1000	0.0116	0.0100	16.3	20.0
Chloromethane	Ave	0.2203	0.2078	0.1000	0.00943	0.0100	-5.7	20.0
Vinyl chloride	Ave	0.2072	0.1893	0.1000	0.00914	0.0100	-8.6	20.0
Butadiene	Ave	0.2001	0.1618		0.00808	0.0100	-19.2	20.0
Bromomethane	Lin1		0.0773	0.0500	0.00776	0.0100	-22.4*	20.0
Chloroethane	Ave	0.1010	0.0848	0.0500	0.00840	0.0100	-16.0	20.0
Dichlorofluoromethane	Ave	0.2987	0.2453		0.00821	0.0100	-17.9	20.0
Trichlorofluoromethane	Ave	0.2202	0.2168	0.1000	0.00984	0.0100	-1.6	20.0
Ethyl ether	Ave	0.2318	0.2093		0.00903	0.0100	-9.7	20.0
Acrolein	Ave	0.0272	0.0246		0.0451	0.0500	-9.8	50.0
1,1-Dichloroethene	Ave	0.2290	0.2173	0.1000	0.00949	0.0100	-5.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1426	0.1252	0.0500	0.00878	0.0100	-12.2	20.0
Acetone	Ave	0.0728	0.0507	0.0100	0.0139	0.0200	-30.3	50.0
Iodomethane	Ave	0.3163	0.2760		0.00873	0.0100	-12.7	20.0
Carbon disulfide	Ave	0.6282	0.5479	0.1000	0.00872	0.0100	-12.8	20.0
3-Chloro-1-propene	Ave	0.1930	0.1668		0.00864	0.0100	-13.6	20.0
Methyl acetate	Ave	0.1490	0.1307	0.1000	0.0439	0.0500	-12.3	20.0
Methylene Chloride	Lin1		0.2616	0.1000	0.00998	0.0100	-0.2	50.0
2-Methyl-2-propanol	Ave	0.0135	0.0110		0.0814	0.100	-18.6	50.0
Acrylonitrile	Ave	0.0768	0.0669		0.0872	0.100	-12.8	20.0
Methyl tert-butyl ether	Ave	0.7070	0.6705	0.1000	0.00948	0.0100	-5.2	20.0
trans-1,2-Dichloroethene	Ave	0.2946	0.2762	0.1000	0.00938	0.0100	-6.2	20.0
Hexane	Ave	0.0659	0.0605		0.00918	0.0100	-8.2	20.0
1,1-Dichloroethane	Ave	0.4715	0.4402	0.2000	0.00934	0.0100	-6.6	20.0
Vinyl acetate	Ave	0.4379	0.3709		0.00847	0.0100	-15.3	50.0
2,2-Dichloropropane	Ave	0.2768	0.2419		0.00874	0.0100	-12.6	20.0
2-Butanone (MEK)	Ave	0.0952	0.0758	0.0100	0.0159	0.0200	-20.4*	20.0
cis-1,2-Dichloroethene	Ave	0.3043	0.3084	0.1000	0.0101	0.0100	1.3	20.0
Chlorobromomethane	Ave	0.1410	0.1388		0.00984	0.0100	-1.6	20.0
Tetrahydrofuran	Ave	0.0558	0.0466		0.0167	0.0200	-16.4	20.0
Chloroform	Ave	0.4423	0.4335	0.2000	0.00980	0.0100	-2.0	20.0
1,1,1-Trichloroethane	Ave	0.3308	0.3156	0.1000	0.00954	0.0100	-4.6	20.0
Cyclohexane	Ave	0.3679	0.3580	0.1000	0.00973	0.0100	-2.7	20.0
1,1-Dichloropropene	Ave	0.3588	0.3527		0.00983	0.0100	-1.7	20.0
Carbon tetrachloride	Ave	0.2829	0.2672	0.1000	0.00944	0.0100	-5.6	20.0
Isobutyl alcohol	Ave	0.0060	0.0048		0.202	0.250	-19.0	20.0
1,2-Dichloroethane	Ave	0.3070	0.2937	0.1000	0.00957	0.0100	-4.3	20.0
Benzene	Ave	1.192	1.140	0.5000	0.00957	0.0100	-4.3	20.0
n-Heptane	Ave	0.0603	0.0582		0.00965	0.0100	-3.5	20.0
Trichloroethene	Ave	0.2980	0.2952	0.1500	0.00990	0.0100	-1.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3653	0.3484	0.1000	0.00954	0.0100	-4.6	20.0
1,2-Dichloropropane	Ave	0.2768	0.2599	0.1000	0.00939	0.0100	-6.1	20.0
Dibromomethane	Ave	0.1447	0.1360		0.00940	0.0100	-6.0	20.0
1,4-Dioxane	Qua		0.0008		0.0980	0.200	-51.0*	50.0
Dichlorobromomethane	Ave	0.3203	0.2890	0.1500	0.00902	0.0100	-9.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1542	0.1406		0.0182	0.0200	-8.8	20.0
cis-1,3-Dichloropropene	Ave	0.4213	0.3740	0.1500	0.00888	0.0100	-11.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1937	0.1613	0.0500	0.0167	0.0200	-16.7	20.0
Toluene	Ave	1.702	1.635	0.4000	0.00961	0.0100	-3.9	20.0
trans-1,3-Dichloropropene	Ave	0.4875	0.3938	0.1000	0.00808	0.0100	-19.2	20.0
Ethyl methacrylate	Ave	0.4728	0.4224		0.00893	0.0100	-10.7	20.0
1,1,2-Trichloroethane	Ave	0.2936	0.2877	0.1000	0.00980	0.0100	-2.0	20.0
Tetrachloroethene	Ave	0.3204	0.3158	0.1500	0.00986	0.0100	-1.4	20.0
1,3-Dichloropropane	Ave	0.5391	0.5115		0.00949	0.0100	-5.1	20.0
2-Hexanone	Ave	0.1913	0.1439	0.0500	0.0150	0.0200	-24.8*	20.0
Chlorodibromomethane	Ave	0.2886	0.2361		0.00818	0.0100	-18.2	20.0
Ethylene Dibromide	Ave	0.2950	0.2751		0.00932	0.0100	-6.8	20.0
Chlorobenzene	Ave	1.030	0.997	0.3000	0.00968	0.0100	-3.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3429	0.3204		0.00935	0.0100	-6.5	20.0
Ethylbenzene	Ave	0.5585	0.5409		0.00968	0.0100	-3.2	20.0
m-Xylene & p-Xylene	Ave	0.6874	0.6686		0.00973	0.0100	-2.7	20.0
o-Xylene	Ave	0.6575	0.6420		0.00976	0.0100	-2.4	20.0
Styrene	Ave	1.178	1.135	0.3000	0.00964	0.0100	-3.6	20.0
Bromoform	Lin1		0.1122	0.1000	0.00610	0.0100	-39.0*	20.0
Isopropylbenzene	Ave	1.565	1.521	0.1000	0.00972	0.0100	-2.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6779	0.6238	0.3000	0.00920	0.0100	-8.0	20.0
Bromobenzene	Ave	0.8986	0.9018		0.0100	0.0100	0.4	20.0
1,2,3-Trichloropropane	Ave	0.2291	0.1991		0.00869	0.0100	-13.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1153	0.0490		0.00425	0.0100	-57.5*	20.0
N-Propylbenzene	Ave	0.8597	0.8464		0.00984	0.0100	-1.6	20.0
2-Chlorotoluene	Ave	0.7888	0.7428		0.00942	0.0100	-5.8	20.0
1,3,5-Trimethylbenzene	Ave	2.442	2.442		0.0100	0.0100	0.0	20.0
4-Chlorotoluene	Ave	0.8109	0.7822		0.00965	0.0100	-3.5	20.0
tert-Butylbenzene	Ave	2.077	2.031		0.00978	0.0100	-2.2	20.0
1,2,4-Trimethylbenzene	Ave	2.524	2.484		0.00984	0.0100	-1.6	20.0
sec-Butylbenzene	Ave	2.678	2.649		0.00989	0.0100	-1.1	20.0
1,3-Dichlorobenzene	Ave	1.466	1.442	0.6000	0.00984	0.0100	-1.6	20.0
4-Isopropyltoluene	Ave	2.306	2.250		0.00976	0.0100	-2.4	20.0
1,4-Dichlorobenzene	Ave	1.514	1.470	0.5000	0.00971	0.0100	-2.9	20.0
n-Butylbenzene	Ave	1.817	1.748		0.00962	0.0100	-3.8	20.0
1,2-Dichlorobenzene	Ave	1.344	1.330	0.4000	0.00989	0.0100	-1.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1151	0.0975	0.0500	0.00847	0.0100	-15.3	50.0
1,2,4-Trichlorobenzene	Ave	0.7024	0.6567	0.2000	0.00935	0.0100	-6.5	50.0
Hexachlorobutadiene	Ave	0.3161	0.2927		0.00926	0.0100	-7.4	20.0
Naphthalene	Ave	1.583	1.427		0.00901	0.0100	-9.9	50.0
1,2,3-Trichlorobenzene	Ave	0.5891	0.5351		0.00908	0.0100	-9.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2379	0.2377		0.00999	0.0100	-0.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2698		0.00980	0.0100	-2.0	20.0
Toluene-d8 (Surr)	Ave	1.444	1.435		0.00994	0.0100	-0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.4696		0.00979	0.0100	-2.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCV 240-272768/3 Calibration Date: 03/31/2017 10:58

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 12:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 14:24

Lab File ID: UXJ1122.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0181	0.0172		0.0947	0.100	-5.3	20.0
Isopropyl ether	Ave	0.2617	0.2634		0.0101	0.0100	0.6	20.0
2-Chloro-1,3-butadiene	Ave	0.4583	0.4158		0.00907	0.0100	-9.3	20.0
Tert-butyl ethyl ether	Ave	0.8371	0.8003		0.00956	0.0100	-4.4	20.0
Ethyl acetate	Ave	0.1936	0.1847		0.0191	0.0200	-4.6	50.0
Propionitrile	Ave	0.0241	0.0226		0.0937	0.100	-6.3	20.0
Methacrylonitrile	Ave	0.1333	0.1254		0.0941	0.100	-5.9	20.0
Tert-amyl methyl ether	Ave	0.7539	0.7487		0.00993	0.0100	-0.7	20.0
n-Butanol	Ave	0.0051	0.0035		0.171	0.250	-31.5*	20.0
Ethyl acrylate	Ave	0.2937	0.2810		0.00957	0.0100	-4.3	20.0
Methyl methacrylate	Ave	0.2018	0.1879		0.0186	0.0200	-6.9	20.0
2-Nitropropane	Ave	0.0491	0.0458		0.0187	0.0200	-6.6	20.0
n-Butyl acetate	Ave	0.3308	0.3081		0.00931	0.0100	-6.9	20.0
1-Chlorohexane	Ave	0.4626	0.4331		0.00936	0.0100	-6.4	20.0
Cyclohexanone	Lin1		0.0087		0.0672	0.100	-32.8*	20.0
Pentachloroethane	Lin1		0.1619		0.0157	0.0200	-21.3	
1,2,3-Trimethylbenzene	Ave	2.527	2.475		0.00979	0.0100	-2.1	20.0
Benzyl chloride	Lin1		0.3049		0.00937	0.0100	-6.3	
1,3,5-Trichlorobenzene	Ave	0.8021	0.7516		0.00937	0.0100	-6.3	20.0
2-Methylnaphthalene	Ave	0.9439	0.7518		0.0159	0.0200	-20.4*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab File ID: BFB5200.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX16 BFB Injection Time: 13:36

Analysis Batch No.: 272263

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	76.3	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272263/6	UXM1388.D	03/29/2017	14:02
	STD8260 240-272263/7	UXM1389.D	03/29/2017	14:25
	STD8260 240-272263/8	UXM1390.D	03/29/2017	14:48
	ICIS 240-272263/9	UXM1391.D	03/29/2017	15:11
	STD8260 240-272263/10	UXM1392.D	03/29/2017	15:34
	STD8260 240-272263/11	UXM1393.D	03/29/2017	15:56
	STDA9 240-272263/13	UXM1395.D	03/29/2017	16:47
	STDA9 240-272263/14	UXM1396.D	03/29/2017	17:10
	STDA9 240-272263/15	UXM1397.D	03/29/2017	17:33
	STDA9 240-272263/16	UXM1398.D	03/29/2017	17:55
	STDA9 240-272263/17	UXM1399.D	03/29/2017	18:18
	STDA9 240-272263/18	UXM1400.D	03/29/2017	18:41
	ICV 240-272263/20	UXM1402.D	03/29/2017	19:27
	ICV 240-272263/21	UXM1403.D	03/29/2017	19:50

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2774 0.3284	0.2911	0.3262	0.3261	0.3503	Ave		0.3166			0.1000	8.5		20.0			
Chloromethane	0.4243 0.3631	0.3916	0.3790	0.3773	0.3916	Ave		0.3878			0.1000	5.4		20.0			
Vinyl chloride	0.4087 0.3605	0.3465	0.3612	0.3711	0.3829	Ave		0.3718			0.1000	5.8		20.0			
Butadiene	0.2591 0.3141	0.2556	0.2954	0.3159	0.3217	Ave		0.2937				10.0		20.0			
Bromomethane	0.2462 0.2319	0.2336	0.2325	0.2219	0.2327	Ave		0.2332			0.0500	3.3		20.0			
Chloroethane	0.2194 0.2239	0.1843	0.2273	0.2249	0.2316	Ave		0.2186			0.0500	7.9		20.0			
Dichlorofluoromethane	0.6271 0.5827	0.5458	0.5988	0.5826	0.6147	Ave		0.5919				4.8		20.0			
Trichlorofluoromethane	0.3569 0.4333	0.3855	0.4259	0.4347	0.4592	Ave		0.4159			0.1000	9.0		20.0			
Ethyl ether	0.2759 0.2366	0.2379	0.2543	0.2398	0.2563	Ave		0.2501				6.1		20.0			
Acrolein	0.0384 0.0319	0.0312	0.0336	0.0327	0.0346	Ave		0.0337				7.6		20.0			
1,1-Dichloroethene	0.3099 0.2842	0.2647	0.2795	0.2888	0.2999	Ave		0.2878			0.1000	5.5		20.0			
Acetone	+++++ 0.0788	0.1310	0.0907	0.0866	0.0925	Lin1	0.1043	0.0835			0.0100				0.9940		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0921 0.1845	0.1404	0.1678	0.1754	0.1718	Lin1	-0.045	0.1793			0.0500				0.9990		0.9900
Iodomethane	0.4817 0.4537	0.4441	0.4516	0.4592	0.4825	Ave		0.4621				3.5		20.0			
Carbon disulfide	1.0384 0.9437	0.8950	0.9260	0.9397	0.9657	Ave		0.9514			0.1000	5.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2088 0.1945	0.1889	0.2169	0.1917	0.2068	Ave		0.2013				5.5		20.0			
Methyl acetate	0.1785 0.1542	0.1585	0.1607	0.1601	0.1623	Ave		0.1624			0.1000	5.1		20.0			
Methylene Chloride	+++++ 0.3133	0.8626	0.3413	0.3195	0.3388	Lin1	0.5333	0.3080			0.1000				0.9980		0.9900
2-Methyl-2-propanol	0.0315 0.0189	0.0213	0.0195	0.0198	0.0198	Lin1	0.0481	0.0192							0.9990		0.9900
Acrylonitrile	0.0953 0.0828	0.0857	0.0840	0.0837	0.0870	Ave		0.0864				5.4		20.0			
trans-1,2-Dichloroethene	0.3210 0.3162	0.2997	0.3159	0.3101	0.3333	Ave		0.3161			0.1000	3.5		20.0			
Methyl tert-butyl ether	0.8745 0.8162	0.7894	0.8187	0.8126	0.8733	Ave		0.8308			0.1000	4.2		20.0			
Hexane	0.2939 0.2948	0.2970	0.2722	0.2810	0.2994	Ave		0.2897				3.7		20.0			
1,1-Dichloroethane	0.5521 0.5175	0.4733	0.5210	0.5179	0.5529	Ave		0.5224			0.2000	5.6		20.0			
Vinyl acetate	0.4516 0.4009	0.3877	0.4037	0.3918	0.4198	Ave		0.4093				5.8		20.0			
2,2-Dichloropropane	0.3794 0.3532	0.3453	0.3576	0.3513	0.3722	Ave		0.3598				3.7		20.0			
2-Butanone (MEK)	0.1322 0.0875	0.0867	0.0946	0.0931	0.0992	Ave		0.0989			0.0100	17.1		20.0			
cis-1,2-Dichloroethene	0.3587 0.3537	0.3367	0.3467	0.3429	0.3721	Ave		0.3518			0.1000	3.6		20.0			
Chlorobromomethane	0.1291 0.1502	0.1431	0.1505	0.1467	0.1612	Ave		0.1468				7.2		20.0			
Tetrahydrofuran	+++++ 0.0556	0.0583	0.0569	0.0577	0.0598	Ave		0.0577				2.7		20.0			
Chloroform	0.5471 0.5284	0.5180	0.5158	0.5179	0.5629	Ave		0.5317			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.4142 0.4390	0.4248	0.4405	0.4404	0.4618	Ave		0.4368			0.1000	3.7		20.0			
Cyclohexane	0.4351 0.4326	0.4108	0.4111	0.4328	0.4318	Ave		0.4257			0.1000	2.7		20.0			
1,1-Dichloropropene	0.3936 0.4033	0.3495	0.3997	0.4002	0.4212	Ave		0.3946				6.1		20.0			
Carbon tetrachloride	0.3835 0.3598	0.3382	0.3513	0.3550	0.3753	Ave		0.3605			0.1000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0065 0.0062	0.0053	0.0067	0.0067	0.0067	Ave		0.0063				8.6		20.0			
Benzene	1.3724 1.2227	1.1219	1.2218	1.2050	1.2842	Ave		1.2380			0.5000	6.8		20.0			
1,2-Dichloroethane	0.3910 0.3932	0.3705	0.4014	0.3955	0.4214	Ave		0.3955			0.1000	4.2		20.0			
n-Heptane	+++++ 0.1323	0.7828	0.1743	0.1452	0.1373	Lin1	0.6515	0.1191							0.9980		0.9900
Trichloroethene	0.3404 0.3089	0.2946	0.3129	0.3013	0.3193	Ave		0.3129			0.1500	5.1		20.0			
Methylcyclohexane	0.3962 0.4020	0.4164	0.3842	0.3811	0.4140	Ave		0.3990			0.1000	3.7		20.0			
1,2-Dichloropropane	0.2659 0.2739	0.2677	0.2805	0.2770	0.2933	Ave		0.2764			0.1000	3.6		20.0			
Dibromomethane	0.1841 0.1580	0.1557	0.1636	0.1609	0.1664	Ave		0.1648				6.2		20.0			
1,4-Dioxane	0.0022 0.0024	0.0021	0.0025	0.0025	0.0025	Ave		0.0024				6.7		20.0			
Dichlorobromomethane	0.3832 0.3821	0.3551	0.3780	0.3743	0.4067	Ave		0.3799			0.1500	4.4		20.0			
2-Chloroethyl vinyl ether	0.1585 0.1357	0.1250	0.1429	0.1377	0.1476	Ave		0.1413				8.0		20.0			
cis-1,3-Dichloropropene	0.4496 0.4653	0.4268	0.4592	0.4537	0.4927	Ave		0.4579			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.2293 0.1854	0.2069	0.2005	0.2004	0.2030	Ave		0.2043			0.0500	7.0		20.0			
Toluene	1.5034 1.5997	1.3726	1.5269	1.5051	1.6319	Ave		1.5233			0.4000	6.0		20.0			
trans-1,3-Dichloropropene	0.4548 0.4818	0.4333	0.4674	0.4569	0.4997	Ave		0.4656			0.1000	5.0		20.0			
Ethyl methacrylate	0.3803 0.3740	0.3185	0.3922	0.3811	0.3898	Ave		0.3726				7.3		20.0			
1,1,2-Trichloroethane	0.2635 0.2687	0.2498	0.2723	0.2568	0.2811	Ave		0.2654			0.1000	4.2		20.0			
1,3-Dichloropropane	0.5065 0.4731	0.4472	0.4815	0.4621	0.4985	Ave		0.4781				4.6		20.0			
Tetrachloroethene	0.2542 0.2756	0.2173	0.2564	0.2573	0.2785	Ave		0.2566			0.1500	8.5		20.0			
2-Hexanone	0.2078 0.1535	0.1472	0.1718	0.1662	0.1729	Ave		0.1699			0.0500	12.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2932 0.3159	0.2671	0.2991	0.3025	0.3261	Ave		0.3007				6.8		20.0			
Ethylene Dibromide	0.2219 0.2665	0.2582	0.2665	0.2598	0.2776	Ave		0.2584				7.4		20.0			
Chlorobenzene	1.0529 0.9678	0.8811	0.9699	0.9300	1.0081	Ave		0.9683			0.3000	6.2		20.0			
1,1,1,2-Tetrachloroethane	0.3063 0.3556	0.3094	0.3415	0.3391	0.3631	Ave		0.3358				7.0		20.0			
Ethylbenzene	0.4877 0.5488	0.4527	0.5317	0.5213	0.5696	Ave		0.5186				8.2		20.0			
m-Xylene & p-Xylene	0.6411 0.6835	0.5972	0.6660	0.6424	0.7068	Ave		0.6562				5.8		20.0			
o-Xylene	0.6365 0.7126	0.5894	0.6714	0.6629	0.7222	Ave		0.6658				7.4		20.0			
Styrene	1.1100 1.1992	0.9655	1.1476	1.1234	1.2429	Ave		1.1314			0.3000	8.4		20.0			
Bromoform	+++++ 0.1965	0.1499	0.1847	0.1835	0.2004	Ave		0.1830			0.1000	10.9		20.0			
Isopropylbenzene	1.5431 1.7556	1.4920	1.6914	1.6192	1.7882	Ave		1.6482			0.1000	7.1		20.0			
1,1,2,2-Tetrachloroethane	0.6083 0.5668	0.5706	0.5874	0.5668	0.5898	Ave		0.5816			0.3000	2.8		20.0			
Bromobenzene	0.7214 0.6938	0.6411	0.6888	0.6748	0.7324	Ave		0.6921				4.7		20.0			
1,2,3-Trichloropropane	0.1987 0.1777	0.1412	0.1899	0.1788	0.1886	Ave		0.1791				11.2		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1649	0.1477	0.1661	0.1620	0.1691	Ave		0.1620				5.2		20.0			
N-Propylbenzene	0.6918 0.7372	0.6194	0.7268	0.7170	0.7728	Ave		0.7108				7.3		20.0			
2-Chlorotoluene	0.5891 0.6524	0.6072	0.6547	0.6350	0.6848	Ave		0.6372				5.4		20.0			
1,3,5-Trimethylbenzene	2.0957 2.3598	2.0166	2.3008	2.2541	2.4702	Ave		2.2495				7.5		20.0			
4-Chlorotoluene	0.6633 0.6930	0.6450	0.6920	0.6739	0.7178	Ave		0.6808				3.8		20.0			
tert-Butylbenzene	1.7635 1.9140	1.6247	1.8363	1.8095	2.0418	Ave		1.8316				7.7		20.0			
1,2,4-Trimethylbenzene	2.3247 2.5091	2.1504	2.4221	2.3653	2.6095	Ave		2.3968				6.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.5150 2.6729	2.2201	2.4881	2.5159	2.6914	Ave		2.5172				6.7		20.0			
1,3-Dichlorobenzene	1.4670 1.3679	1.2338	1.3477	1.3117	1.4211	Ave		1.3582			0.6000	6.0		20.0			
4-Isopropyltoluene	2.1129 2.3459	1.8695	2.2357	2.2077	2.3896	Ave		2.1935				8.5		20.0			
1,4-Dichlorobenzene	1.4955 1.4123	1.3794	1.3886	1.3663	1.4845	Ave		1.4211			0.5000	3.9		20.0			
n-Butylbenzene	1.7339 1.9743	1.5905	1.8048	1.8379	1.9843	Ave		1.8210				8.2		20.0			
1,2-Dichlorobenzene	1.2562 1.3098	1.1778	1.2902	1.2925	1.3695	Ave		1.2827			0.4000	4.9		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1052	0.0364	0.0995	0.1035	0.1060	Lin1	-0.070	0.1069			0.0500				1.0000		0.9900
1,2,4-Trichlorobenzene	0.6877 0.6736	0.5503	0.6622	0.6682	0.6940	Ave		0.6560			0.2000	8.1		20.0			
Hexachlorobutadiene	0.2877 0.2599	0.2632	0.2675	0.2544	0.2579	Ave		0.2651				4.5		20.0			
Naphthalene	1.6027 1.5994	1.4701	1.5619	1.6108	1.6507	Ave		1.5826				3.9		20.0			
1,2,3-Trichlorobenzene	0.6150 0.5347	0.5152	0.5434	0.5219	0.5373	Ave		0.5446				6.6		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2685	0.2395	0.2729	0.2637	0.2857	Ave		0.2661				6.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3228	0.3015	0.3260	0.3254	0.3428	Ave		0.3237				4.5		20.0			
Toluene-d8 (Surr)	+++++ 1.3214	1.1456	1.2974	1.2474	1.3716	Ave		1.2767				6.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5071	0.4952	0.5030	0.4775	0.5277	Ave		0.5021				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5179 847120	11017	128360	253224	550892	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	7922 936755	14820	149125	293002	615885	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7630 930046	13114	142124	288166	602218	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	4838 810331	9674	116239	245302	505876	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4597 598347	8841	91460	172325	365990	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4096 577536	6974	89417	174639	364276	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11708 1503160	20654	235601	452370	966660	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	6664 1117927	14588	167580	337517	722089	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5151 610299	9003	100039	186234	403120	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	3583 411959	5902	66140	127012	271894	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	5786 733110	10015	109963	224216	471677	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 406505	9915	71393	134509	291061	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin1	1719 475836	5314	66002	136175	270113	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	8993 1170460	16807	177685	356561	758795	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19388 2434531	33870	364318	729668	1518632	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	3898 501808	7147	85345	148857	325226	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	16660 1988424	29982	316228	621600	1276312	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 808307	32644	134304	248096	532778	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Lin1	5873 488818	8043	76560	153795	312048	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	17798 2135402	32438	330543	649564	1367386	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	5994 815699	11343	124281	240825	524179	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	16327 2105680	29872	322103	631005	1373337	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	5487 760574	11238	107113	218153	470888	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10307 1334943	17911	204999	402129	869459	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	8432 1034200	14672	158843	304201	660178	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7083 911074	13066	140701	272751	585273	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	4935 451516	6565	74473	144524	312018	1.00 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	6697 912453	12740	136411	266288	585132	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	2410 387412	5415	59207	113893	253511	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 286982	4411	44754	89633	188065	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	10215 1363021	19603	202957	402177	885179	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	7733 1132620	16074	173321	341980	726229	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	8124 1115970	15546	161743	336024	679066	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7348 1040465	13224	157266	310724	662295	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7160 928150	12799	138203	275660	590240	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3024 400360	5010	65708	129156	263648	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	25623 3154247	42454	480702	935627	2019515	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	7301 1014431	14020	157922	307103	662756	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 341428	29623	68593	112761	215843	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6355 796803	11148	123108	233955	502151	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7397 1037120	15758	151173	295935	651030	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4964 706657	10130	110357	215114	461237	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3437 407486	5893	64377	124908	261655	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	834 123335	1605	19655	38426	78547	10.0 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7155 985845	13436	148706	290638	639618	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5918 700370	9463	112468	213909	464280	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8395 1200301	16151	180675	352263	774818	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8562 956773	15661	157774	311153	638574	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	24459 3381801	43972	506034	999549	2175973	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7400 1018460	13881	154908	303427	666263	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6188 790543	10204	129971	253071	519797	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4287 568086	8004	90248	170548	374844	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8240 1000041	14327	159567	306909	664700	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	4136 582643	6962	84984	170857	371340	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	6760 648844	9432	113881	220698	461028	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	4770 667908	8556	99130	200923	434766	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	3610 563465	8273	88330	172552	370102	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	17130 2045855	28228	321425	617603	1344142	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	4983 751801	9911	113169	225209	484147	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	7935 1160183	14503	176218	346211	759461	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10431 1444911	19132	220713	426620	942436	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10356 1506460	18882	222497	440251	962956	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	18059 2535054	30930	380327	746075	1657306	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 415424	4801	61205	121879	267228	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25106 3711391	47797	560540	1075361	2384274	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	5713 737968	10448	115737	225373	475002	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	6775 903324	11739	135717	268325	589896	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1866 231422	2585	37411	71109	151875	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 214760	2705	32721	64414	136212	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6497 959812	11342	143202	285089	622432	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	5533 849427	11118	129000	252467	551504	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	19682 3072471	36925	453357	896247	1989434	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	6229 902216	11811	136344	267964	578143	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	16562 2492024	29749	361820	719500	1644461	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	21832 3266809	39375	477256	940469	2101646	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	23620 3480080	40652	490263	1000351	2167632	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13777 1780923	22592	265561	521548	1144570	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	19843 3054252	34232	440532	877803	1924581	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	14045 1838844	25258	273613	543264	1195580	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	16284 2570482	29124	355628	730792	1598143	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	11798 1705302	21566	254218	513920	1102993	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 136942	667	19605	41171	85385	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	6459 876963	10076	130479	265671	558939	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	2702 338447	4820	52710	101162	207737	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	15052 2082436	26918	307761	640457	1329426	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	5776 696197	9433	107067	207510	432770	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 692751	9065	107373	204745	449310	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 832640	11411	128256	252642	539067	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2793316	36701	429977	828458	1828800	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1072081	15864	166696	317105	703668	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-272263/13	UXM1395.D
Level 2	STDA9 240-272263/14	UXM1396.D
Level 3	STDA9 240-272263/15	UXM1397.D
Level 4	STDA9 240-272263/16	UXM1398.D
Level 5	STDA9 240-272263/17	UXM1399.D
Level 6	STDA9 240-272263/18	UXM1400.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0364 0.0272	0.0292	0.0281	0.0279	0.0273	Ave		0.0293				12.0		20.0			
Isopropyl ether	0.2418 0.2884	0.2575	0.2673	0.2841	0.2839	Ave		0.2705				6.8		20.0			
2-Chloro-1,3-butadiene	0.4241 0.5251	0.4918	0.4931	0.5258	0.5135	Ave		0.4956				7.7		20.0			
Tert-butyl ethyl ether	0.8941 0.9713	0.9046	0.9209	0.9620	0.9424	Ave		0.9325				3.3		20.0			
Propionitrile	0.0298 0.0298	0.0331	0.0301	0.0299	0.0302	Ave		0.0305				4.2		20.0			
Ethyl acetate	0.1909 0.1703	0.1752	0.1746	0.1791	0.1739	Ave		0.1773				4.1		20.0			
Methacrylonitrile	0.1327 0.1386	0.1382	0.1332	0.1371	0.1384	Ave		0.1364				2.0		20.0			
Tert-amyl methyl ether	0.8109 0.9359	0.8102	0.8582	0.8930	0.8990	Ave		0.8679				5.8		20.0			
n-Butanol	+++++ 0.0056	0.0040	0.0048	0.0053	0.0055	Ave		0.0050				13.3		20.0			
Ethyl acrylate	0.2249 0.2518	0.2575	0.2408	0.2598	0.2476	Ave		0.2470				5.2		20.0			
Methyl methacrylate	0.1717 0.1935	0.1952	0.1866	0.1924	0.1935	Ave		0.1888				4.7		20.0			
2-Nitropropane	0.0546 0.0638	0.0533	0.0534	0.0600	0.0619	Ave		0.0578				8.0		20.0			
n-Butyl acetate	0.3417 0.3317	0.3093	0.3517	0.3464	0.3372	Ave		0.3363				4.5		20.0			
1-Chlorohexane	0.4194 0.4316	0.4623	0.3987	0.4101	0.4141	Ave		0.4227				5.3		20.0			
Cyclohexanone	+++++ 0.0148	0.0137	0.0131	0.0139	0.0145	Ave		0.0140				4.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1893 0.2532	0.1972	0.2128	0.2350	0.2433	Lin1	-0.090	0.2457							0.9980		0.9900
1,2,3-Trimethylbenzene	2.3483 2.9147	2.3254	2.5627	2.7758	2.7767	Ave		2.6173				9.4		20.0			
Benzyl chloride	0.1883 0.3047	0.1975	0.2323	0.2690	0.2821	Lin1	-0.082	0.2894							0.9950		0.9900
1,3,5-Trichlorobenzene	0.6899 0.8706	0.6788	0.7454	0.8135	0.8067	Ave		0.7675				9.9		20.0			
2-Methylnaphthalene	0.3129 0.5782	0.3754	0.4117	0.4892	0.5380	Lin1	-0.355	0.5453							0.9930		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-272263/13	UXM1395.D
Level 2	STDA9 240-272263/14	UXM1396.D
Level 3	STDA9 240-272263/15	UXM1397.D
Level 4	STDA9 240-272263/16	UXM1398.D
Level 5	STDA9 240-272263/17	UXM1399.D
Level 6	STDA9 240-272263/18	UXM1400.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	6626 616786	10483	98845	200908	404822	5.00 600	10.0	100	200	400
Isopropyl ether	FB	Ave	4401 654948	9244	93982	204572	420896	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	7720 1192751	17656	173376	378581	761346	0.500 60.0	1.00	10.0	20.0	40.0
Tert-butyl ethyl ether	FB	Ave	16275 2205969	32473	323811	692599	1397092	0.500 60.0	1.00	10.0	20.0	40.0
Propionitrile	FB	Ave	5430 676312	11871	105868	215525	447369	5.00 600	10.0	100	200	400
Ethyl acetate	FB	Ave	6948 773738	12578	122769	257931	515707	1.00 120	2.00	20.0	40.0	80.0
Methacrylonitrile	FB	Ave	24149 3147206	49625	468368	986832	2052179	5.00 600	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	14761 2125641	29084	301763	642905	1332793	0.500 60.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	+++++ 318420	3558	42107	95467	202844	+++++ 1500	25.0	250	500	1000
Ethyl acrylate	FB	Ave	4093 571908	9244	84671	187018	367012	0.500 60.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	6251 878953	14011	131247	277118	573813	1.00 120	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	1988 289942	3826	37570	86406	183435	1.00 120	2.00	20.0	40.0	80.0
n-Butyl acetate	FB	Ave	6219 753321	11102	123671	249402	499918	0.500 60.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	6651 803253	13821	117831	250734	514953	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexanone	DCBd 4	Ave	+++++ 156911	2408	22547	48539	103323	+++++ 600	10.0	100	200	400
Pentachloroethane	CBNZ d5	Lin1	6006 942593	11793	125799	287390	605017	1.00 120	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	21146 3084356	40886	440474	970688	1982895	0.500 60.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Lin1	1696 322434	3473	39933	94075	201482	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	6212 921325	11935	128118	284477	576104	0.500 60.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	5635 1223729	13202	141522	342142	768353	1.00 120	2.00	20.0	40.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2754	0.1000	0.0174	0.0200	-13.0	20.0
Chloromethane	Ave	0.3878	0.3485	0.1000	0.0180	0.0200	-10.1	20.0
Vinyl chloride	Ave	0.3718	0.3559	0.1000	0.0191	0.0200	-4.3	20.0
Butadiene	Ave	0.2937	0.2643		0.0180	0.0200	-10.0	30.0
Bromomethane	Ave	0.2332	0.2350	0.0500	0.0202	0.0200	0.8	20.0
Chloroethane	Ave	0.2186	0.2331	0.0500	0.0213	0.0200	6.7	20.0
Dichlorofluoromethane	Ave	0.5919	0.5918		0.0200	0.0200	-0.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.4116	0.1000	0.0198	0.0200	-1.1	20.0
Ethyl ether	Ave	0.2501	0.2556		0.0204	0.0200	2.2	20.0
Acrolein	Ave	0.0337	0.0396		0.117	0.100	17.5	50.0
1,1-Dichloroethene	Ave	0.2878	0.2795	0.1000	0.0194	0.0200	-2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1533	0.0500	0.0174	0.0200	-13.2	20.0
Acetone	Lin1		0.0696	0.0100	0.0321	0.0400	-19.8	50.0
Iodomethane	Ave	0.4621	0.4372		0.0189	0.0200	-5.4	20.0
Carbon disulfide	Ave	0.9514	0.8428	0.1000	0.0177	0.0200	-11.4	20.0
3-Chloro-1-propene	Ave	0.2013	0.2425		0.0241	0.0200	20.5*	20.0
Methyl acetate	Ave	0.1624	0.1554	0.1000	0.0957	0.100	-4.3	20.0
Methylene Chloride	Lin1		0.3421	0.1000	0.0205	0.0200	2.4	50.0
2-Methyl-2-propanol	Lin1		0.0196		0.202	0.200	0.8	50.0
Acrylonitrile	Ave	0.0864	0.0848		0.196	0.200	-1.9	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.3170	0.1000	0.0201	0.0200	0.3	20.0
Methyl tert-butyl ether	Ave	0.8308	0.8348	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2897	0.2684		0.0185	0.0200	-7.4	20.0
1,1-Dichloroethane	Ave	0.5224	0.5289	0.2000	0.0202	0.0200	1.2	20.0
Vinyl acetate	Ave	0.4093	0.4128		0.0202	0.0200	0.9	50.0
2,2-Dichloropropane	Ave	0.3598	0.3379		0.0188	0.0200	-6.1	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3547	0.1000	0.0202	0.0200	0.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0855	0.0100	0.0346	0.0400	-13.6	20.0
Chlorobromomethane	Ave	0.1468	0.1543		0.0210	0.0200	5.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0579		0.0401	0.0400	0.3	20.0
Chloroform	Ave	0.5317	0.5428	0.2000	0.0204	0.0200	2.1	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4432	0.1000	0.0203	0.0200	1.5	20.0
Cyclohexane	Ave	0.4257	0.3980	0.1000	0.0187	0.0200	-6.5	20.0
1,1-Dichloropropene	Ave	0.3946	0.4168		0.0211	0.0200	5.6	20.0
Carbon tetrachloride	Ave	0.3605	0.3553	0.1000	0.0197	0.0200	-1.4	20.0
Isobutyl alcohol	Ave	0.0063	0.0067		0.531	0.500	6.3	20.0
1,2-Dichloroethane	Ave	0.3955	0.4072	0.1000	0.0206	0.0200	2.9	20.0
Benzene	Ave	1.238	1.256	0.5000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.1419		0.0184	0.0200	-8.2	20.0
Trichloroethene	Ave	0.3129	0.3131	0.1500	0.0200	0.0200	0.0	20.0

ICV %D 50%

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3824	0.1000	0.0192	0.0200	-4.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2828	0.1000	0.0205	0.0200	2.3	20.0
Dibromomethane	Ave	0.1648	0.1637		0.0199	0.0200	-0.6	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.396	0.400	-1.0	50.0
Dichlorobromomethane	Ave	0.3799	0.3911	0.1500	0.0206	0.0200	3.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1427		0.0202	0.0200	1.0	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4754	0.1500	0.0208	0.0200	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2065	0.0500	0.0404	0.0400	1.1	20.0
Toluene	Ave	1.523	1.556	0.4000	0.0204	0.0200	2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4662	0.1000	0.0200	0.0200	0.1	20.0
Ethyl methacrylate	Ave	0.3726	0.3982		0.0214	0.0200	6.8	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2798	0.1000	0.0211	0.0200	5.4	20.0
1,3-Dichloropropane	Ave	0.4781	0.4821		0.0202	0.0200	0.8	20.0
Tetrachloroethene	Ave	0.2566	0.2648	0.1500	0.0206	0.0200	3.2	20.0
2-Hexanone	Ave	0.1699	0.1662	0.0500	0.0391	0.0400	-2.2	20.0
Chlorodibromomethane	Ave	0.3007	0.3087		0.0205	0.0200	2.7	20.0
Ethylene Dibromide	Ave	0.2584	0.2744		0.0212	0.0200	6.2	20.0
Chlorobenzene	Ave	0.9683	0.9766	0.3000	0.0202	0.0200	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3543		0.0211	0.0200	5.5	20.0
Ethylbenzene	Ave	0.5186	0.5447		0.0210	0.0200	5.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6832		0.0208	0.0200	4.1	20.0
o-Xylene	Ave	0.6658	0.6969		0.0209	0.0200	4.7	20.0
Styrene	Ave	1.131	1.212	0.3000	0.0214	0.0200	7.1	20.0
Bromoform	Ave	0.1830	0.1912	0.1000	0.0209	0.0200	4.5	20.0
Isopropylbenzene	Ave	1.648	1.723	0.1000	0.0209	0.0200	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6059	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.6921	0.7158		0.0207	0.0200	3.4	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1976		0.0221	0.0200	10.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1763		0.0218	0.0200	8.8	20.0
N-Propylbenzene	Ave	0.7108	0.7354		0.0207	0.0200	3.5	20.0
2-Chlorotoluene	Ave	0.6372	0.6789		0.0213	0.0200	6.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.355		0.0209	0.0200	4.7	20.0
4-Chlorotoluene	Ave	0.6808	0.7194		0.0211	0.0200	5.7	20.0
tert-Butylbenzene	Ave	1.832	1.861		0.0203	0.0200	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.511		0.0210	0.0200	4.8	20.0
sec-Butylbenzene	Ave	2.517	2.551		0.0203	0.0200	1.3	20.0
1,3-Dichlorobenzene	Ave	1.358	1.413	0.6000	0.0208	0.0200	4.0	20.0
4-Isopropyltoluene	Ave	2.194	2.236		0.0204	0.0200	1.9	20.0
1,4-Dichlorobenzene	Ave	1.421	1.444	0.5000	0.0203	0.0200	1.6	20.0
n-Butylbenzene	Ave	1.821	1.891		0.0208	0.0200	3.8	20.0
1,2-Dichlorobenzene	Ave	1.283	1.343	0.4000	0.0209	0.0200	4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1071	0.0500	0.0207	0.0200	3.4	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6678	0.2000	0.0204	0.0200	1.8	50.0
Hexachlorobutadiene	Ave	0.2651	0.2451		0.0185	0.0200	-7.6	20.0
Naphthalene	Ave	1.583	1.643		0.0208	0.0200	3.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5563		0.0204	0.0200	2.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2578		0.0194	0.0200	-3.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3176		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.277	1.236		0.0194	0.0200	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4880		0.0194	0.0200	-2.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-272263/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 16:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 18:41

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0293	0.0273		0.186	0.200	-7.0	20.0
Isopropyl ether	Ave	0.2705	0.2820		0.0209	0.0200	4.3	20.0
2-Chloro-1,3-butadiene	Ave	0.4956	0.4906		0.0198	0.0200	-1.0	20.0
Tert-butyl ethyl ether	Ave	0.9325	0.9269		0.0199	0.0200	-0.6	20.0
Propionitrile	Ave	0.0305	0.0313		0.205	0.200	2.7	20.0
Ethyl acetate	Ave	0.1773	0.1868		0.0421	0.0400	5.3	50.0
Methacrylonitrile	Ave	0.1364	0.1418		0.208	0.200	4.0	20.0
Tert-amyl methyl ether	Ave	0.8679	0.8922		0.0206	0.0200	2.8	20.0
n-Butanol	Ave	0.0050	0.0052		0.517	0.500	3.5	20.0
Ethyl acrylate	Ave	0.2470	0.2770		0.0224	0.0200	12.1	20.0
Methyl methacrylate	Ave	0.1888	0.2036		0.0431	0.0400	7.8	20.0
2-Nitropropane	Ave	0.0578	0.0619		0.0428	0.0400	7.1	20.0
n-Butyl acetate	Ave	0.3363	0.3632		0.0216	0.0200	8.0	30.0
1-Chlorohexane	Ave	0.4227	0.4159		0.0197	0.0200	-1.6	20.0
Cyclohexanone	Ave	0.0140	0.0142		0.202	0.200	1.2	20.0
Pentachloroethane	Lin1		0.2305		0.0379	0.0400	-5.3	20.0
1,2,3-Trimethylbenzene	Ave	2.617	2.576		0.0197	0.0200	-1.6	20.0
Benzyl chloride	Lin1		0.2580		0.0181	0.0200	-9.4	20.0
1,3,5-Trichlorobenzene	Ave	0.7675	0.7354		0.0192	0.0200	-4.2	20.0
2-Methylnaphthalene	Lin1		0.4733		0.0354	0.0400	-11.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

ICV %D 50%

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-272263/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2661	0.2507		0.0188	0.0200	-5.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3091		0.0191	0.0200	-4.5	20.0
Toluene-d8 (Surr)	Ave	1.277	1.247		0.0195	0.0200	-2.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4775		0.0190	0.0200	-4.9	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab File ID: BFB5206.D BFB Injection Date: 04/05/2017

Instrument ID: A3UX16 BFB Injection Time: 08:29

Analysis Batch No.: 273345

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.9	
75	30.0 - 60.0 % of mass 95	49.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.8	(1.1) 1
174	50.0 - 120.00 % of mass 95	75.0	
175	5.0 - 9.0 % of mass 174	6.1	(8.1) 1
176	95.0 - 101.0 % of mass 174	72.2	(96.3) 1
177	5.0 - 9.0 % of mass 176	4.6	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-273345/3	UXM1525.D	04/05/2017	08:54
	LCS 240-273345/4	UXM1526.D	04/05/2017	09:17
	CCV 240-273345/5	UXM1527.D	04/05/2017	09:40
	MB 240-273345/7	UXM1529.D	04/05/2017	10:26
	240-77450-B-4 MS	UXM1534.D	04/05/2017	12:50
	240-77450-B-4 MSD	UXM1535.D	04/05/2017	13:13
MRC-MW101A-032817	240-77377-2	UXM1537.D	04/05/2017	14:02
MRC-MW101B-032817	240-77377-3	UXM1538.D	04/05/2017	14:25
MRC-MW102A-032817	240-77377-4	UXM1539.D	04/05/2017	14:49
MRC-MW79B-032817	240-77377-6	UXM1540.D	04/05/2017	15:12
MRC-DUP04-032817	240-77377-7	UXM1541.D	04/05/2017	15:35

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCVIS 240-273345/3 Calibration Date: 04/05/2017 08:54

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1525.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2498	0.1000	0.0158	0.0200	-21.1*	20.0
Chloromethane	Ave	0.3878	0.3429	0.1000	0.0177	0.0200	-11.6	20.0
Vinyl chloride	Ave	0.3718	0.3394	0.1000	0.0183	0.0200	-8.7	20.0
Butadiene	Ave	0.2937	0.2008		0.0137	0.0200	-31.6*	20.0
Bromomethane	Ave	0.2332	0.2178	0.0500	0.0187	0.0200	-6.6	20.0
Chloroethane	Ave	0.2186	0.2137	0.0500	0.0196	0.0200	-2.2	20.0
Dichlorofluoromethane	Ave	0.5919	0.5345		0.0181	0.0200	-9.7	20.0
Trichlorofluoromethane	Ave	0.4159	0.3460	0.1000	0.0166	0.0200	-16.8	20.0
Ethyl ether	Ave	0.2501	0.2190		0.0175	0.0200	-12.4	20.0
Acrolein	Ave	0.0337	0.0357		0.106	0.100	5.7	50.0
1,1-Dichloroethene	Ave	0.2878	0.2494	0.1000	0.0173	0.0200	-13.3	20.0
Acetone	Lin1		0.0712	0.0100	0.0328	0.0400	-17.9	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1080	0.0500	0.0123	0.0200	-38.5*	20.0
Iodomethane	Ave	0.4621	0.3793		0.0164	0.0200	-17.9	20.0
Carbon disulfide	Ave	0.9514	0.7336	0.1000	0.0154	0.0200	-22.9*	20.0
3-Chloro-1-propene	Ave	0.2013	0.2111		0.0210	0.0200	4.9	20.0
Methyl acetate	Ave	0.1624	0.1495	0.1000	0.0920	0.100	-8.0	20.0
Methylene Chloride	Lin1		0.2666	0.1000	0.0156	0.0200	-22.1	50.0
2-Methyl-2-propanol	Lin1		0.0190		0.195	0.200	-2.5	50.0
Acrylonitrile	Ave	0.0864	0.0788		0.182	0.200	-8.8	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.2694	0.1000	0.0170	0.0200	-14.8	20.0
Methyl tert-butyl ether	Ave	0.8308	0.7278	0.1000	0.0175	0.0200	-12.4	20.0
Hexane	Ave	0.2897	0.2036		0.0141	0.0200	-29.7*	20.0
1,1-Dichloroethane	Ave	0.5224	0.4569	0.2000	0.0175	0.0200	-12.5	20.0
Vinyl acetate	Ave	0.4093	0.3375		0.0165	0.0200	-17.5	50.0
2,2-Dichloropropane	Ave	0.3598	0.2686		0.0149	0.0200	-25.4*	20.0
2-Butanone (MEK)	Ave	0.0989	0.0808	0.0100	0.0327	0.0400	-18.3	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.2970	0.1000	0.0169	0.0200	-15.6	20.0
Chlorobromomethane	Ave	0.1468	0.1313		0.0179	0.0200	-10.6	20.0
Tetrahydrofuran	Ave	0.0577	0.0571		0.0396	0.0400	-1.0	20.0
Chloroform	Ave	0.5317	0.4452	0.2000	0.0167	0.0200	-16.3	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.3607	0.1000	0.0165	0.0200	-17.4	20.0
Cyclohexane	Ave	0.4257	0.2735	0.1000	0.0128	0.0200	-35.8*	20.0
1,1-Dichloropropene	Ave	0.3946	0.3474		0.0176	0.0200	-12.0	20.0
Carbon tetrachloride	Ave	0.3605	0.2934	0.1000	0.0163	0.0200	-18.6	20.0
Isobutyl alcohol	Ave	0.0063	0.0072		0.566	0.500	13.2	20.0
1,2-Dichloroethane	Ave	0.3955	0.3503	0.1000	0.0177	0.0200	-11.4	20.0
Benzene	Ave	1.238	1.061	0.5000	0.0171	0.0200	-14.3	20.0
n-Heptane	Lin1		0.1211		0.0149	0.0200	-25.7*	20.0
Trichloroethene	Ave	0.3129	0.2629	0.1500	0.0168	0.0200	-16.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCVIS 240-273345/3 Calibration Date: 04/05/2017 08:54

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1525.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.2929	0.1000	0.0147	0.0200	-26.6*	20.0
1,2-Dichloropropane	Ave	0.2764	0.2480	0.1000	0.0179	0.0200	-10.3	20.0
Dibromomethane	Ave	0.1648	0.1431		0.0174	0.0200	-13.2	20.0
1,4-Dioxane	Ave	0.0024	0.0023		0.387	0.400	-3.3	50.0
Dichlorobromomethane	Ave	0.3799	0.3239	0.1500	0.0171	0.0200	-14.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1312		0.0372	0.0400	-7.1	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.3976	0.1500	0.0174	0.0200	-13.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.1838	0.0500	0.0360	0.0400	-10.0	20.0
Toluene	Ave	1.523	1.487	0.4000	0.0195	0.0200	-2.4	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4606	0.1000	0.0198	0.0200	-1.1	20.0
Ethyl methacrylate	Ave	0.3726	0.3879		0.0208	0.0200	4.1	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2655	0.1000	0.0200	0.0200	0.0	20.0
1,3-Dichloropropane	Ave	0.4781	0.4795		0.0201	0.0200	0.3	20.0
Tetrachloroethene	Ave	0.2566	0.2495	0.1500	0.0195	0.0200	-2.7	20.0
2-Hexanone	Ave	0.1699	0.1666	0.0500	0.0392	0.0400	-2.0	20.0
Chlorodibromomethane	Ave	0.3007	0.2948		0.0196	0.0200	-1.9	20.0
Ethylene Dibromide	Ave	0.2584	0.2600		0.0201	0.0200	0.6	20.0
Chlorobenzene	Ave	0.9683	0.9244	0.3000	0.0191	0.0200	-4.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3237		0.0193	0.0200	-3.6	20.0
Ethylbenzene	Ave	0.5186	0.5097		0.0197	0.0200	-1.7	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6440		0.0196	0.0200	-1.9	20.0
o-Xylene	Ave	0.6658	0.6438		0.0193	0.0200	-3.3	20.0
Styrene	Ave	1.131	1.095	0.3000	0.0194	0.0200	-3.2	20.0
Bromoform	Ave	0.1830	0.1765	0.1000	0.0193	0.0200	-3.5	20.0
Isopropylbenzene	Ave	1.648	1.579	0.1000	0.0192	0.0200	-4.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6043	0.3000	0.0208	0.0200	3.9	20.0
Bromobenzene	Ave	0.6921	0.6741		0.0195	0.0200	-2.6	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1944		0.0217	0.0200	8.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1617		0.0200	0.0200	-0.2	20.0
N-Propylbenzene	Ave	0.7108	0.7107		0.0200	0.0200	-0.0	20.0
2-Chlorotoluene	Ave	0.6372	0.6262		0.0197	0.0200	-1.7	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.200		0.0196	0.0200	-2.2	20.0
4-Chlorotoluene	Ave	0.6808	0.6713		0.0197	0.0200	-1.4	20.0
tert-Butylbenzene	Ave	1.832	1.856		0.0203	0.0200	1.3	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.330		0.0194	0.0200	-2.8	20.0
sec-Butylbenzene	Ave	2.517	2.402		0.0191	0.0200	-4.6	20.0
1,3-Dichlorobenzene	Ave	1.358	1.315	0.6000	0.0194	0.0200	-3.2	20.0
4-Isopropyltoluene	Ave	2.194	2.112		0.0193	0.0200	-3.7	20.0
1,4-Dichlorobenzene	Ave	1.421	1.337	0.5000	0.0188	0.0200	-5.9	20.0
n-Butylbenzene	Ave	1.821	1.748		0.0192	0.0200	-4.0	20.0
1,2-Dichlorobenzene	Ave	1.283	1.270	0.4000	0.0198	0.0200	-1.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCVIS 240-273345/3 Calibration Date: 04/05/2017 08:54

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1525.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1076	0.0500	0.0208	0.0200	4.0	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6251	0.2000	0.0191	0.0200	-4.7	50.0
Hexachlorobutadiene	Ave	0.2651	0.2057		0.0155	0.0200	-22.4*	20.0
Naphthalene	Ave	1.583	1.648		0.0208	0.0200	4.1	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5188		0.0191	0.0200	-4.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2398		0.0180	0.0200	-9.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3008		0.0186	0.0200	-7.1	20.0
Toluene-d8 (Surr)	Ave	1.277	1.315		0.0206	0.0200	3.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4962		0.0198	0.0200	-1.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCV 240-273345/5 Calibration Date: 04/05/2017 09:40

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 16:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 18:41

Lab File ID: UXM1527.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0293	0.0245		0.167	0.200	-16.5	20.0
Isopropyl ether	Ave	0.2705	0.2403		0.0178	0.0200	-11.2	20.0
2-Chloro-1,3-butadiene	Ave	0.4956	0.4346		0.0175	0.0200	-12.3	20.0
Tert-butyl ethyl ether	Ave	0.9325	0.7967		0.0171	0.0200	-14.6	20.0
Propionitrile	Ave	0.0305	0.0268		0.176	0.200	-12.0	20.0
Ethyl acetate	Ave	0.1773	0.1591		0.0359	0.0400	-10.3	50.0
Methacrylonitrile	Ave	0.1364	0.1235		0.181	0.200	-9.5	20.0
Tert-amyl methyl ether	Ave	0.8679	0.7492		0.0173	0.0200	-13.7	20.0
n-Butanol	Ave	0.0050	0.0045		0.449	0.500	-10.1	20.0
Ethyl acrylate	Ave	0.2470	0.2269		0.0184	0.0200	-8.1	20.0
Methyl methacrylate	Ave	0.1888	0.1695		0.0359	0.0400	-10.2	20.0
2-Nitropropane	Ave	0.0578	0.0496		0.0343	0.0400	-14.3	20.0
n-Butyl acetate	Ave	0.3363	0.3006		0.0179	0.0200	-10.6	20.0
1-Chlorohexane	Ave	0.4227	0.3947		0.0187	0.0200	-6.6	20.0
Cyclohexanone	Ave	0.0140	0.0145		0.207	0.200	3.5	20.0
Pentachloroethane	Lin1		0.2042		0.0336	0.0400	-16.0	
1,2,3-Trimethylbenzene	Ave	2.617	2.630		0.0201	0.0200	0.5	20.0
Benzyl chloride	Lin1		0.2481		0.0174	0.0200	-12.8	
1,3,5-Trichlorobenzene	Ave	0.7675	0.7497		0.0195	0.0200	-2.3	20.0
2-Methylnaphthalene	Lin1		0.4663		0.0349	0.0400	-12.9	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab File ID: BFB3479.D BFB Injection Date: 10/31/2016

Instrument ID: A3UX9 BFB Injection Time: 12:14

Analysis Batch No.: 253710

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	81.8	
175	5.0 - 9.0 % of mass 174	5.9	(7.2) 1
176	95.0 - 101.0 % of mass 174	80.9	(98.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-253710/8	UX959470.D	10/31/2016	13:31
	STD8260 240-253710/9	UX959471.D	10/31/2016	13:55
	STD8260 240-253710/10	UX959472.D	10/31/2016	14:20
	ICIS 240-253710/11	UX959473.D	10/31/2016	14:44
	STD8260 240-253710/12	UX959474.D	10/31/2016	15:08
	STD8260 240-253710/13	UX959475.D	10/31/2016	15:31
	STDA9 240-253710/15	UX959477.D	10/31/2016	16:20
	STDA9 240-253710/16	UX959478.D	10/31/2016	16:44
	STDA9 240-253710/17	UX959479.D	10/31/2016	17:08
	STDA9 240-253710/18	UX959480.D	10/31/2016	17:32
	STDA9 240-253710/19	UX959481.D	10/31/2016	17:56
	STDA9 240-253710/20	UX959482.D	10/31/2016	18:20
	ICV 240-253710/22	UX959484.D	10/31/2016	19:09
	ICV 240-253710/23	UX959485.D	10/31/2016	19:33

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-253710/8	UX959470.D
Level 2	STD8260 240-253710/9	UX959471.D
Level 3	STD8260 240-253710/10	UX959472.D
Level 4	ICIS 240-253710/11	UX959473.D
Level 5	STD8260 240-253710/12	UX959474.D
Level 6	STD8260 240-253710/13	UX959475.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2740 0.3110	0.2716	0.2989	0.2939	0.3264	Ave		0.2960			0.1000	7.2		20.0			
Chloromethane	0.3760 0.3337	0.3407	0.3694	0.3368	0.3588	Ave		0.3526			0.1000	5.1		20.0			
Vinyl chloride	0.3009 0.3414	0.3318	0.3722	0.3407	0.3619	Ave		0.3415			0.1000	7.3		20.0			
Butadiene	+++++ 0.3268	0.2168	0.2797	0.3026	0.3283	Ave		0.2909				15.8		20.0			
Bromomethane	0.1937 0.2501	0.1952	0.2199	0.2077	0.2234	Ave		0.2150			0.0500	9.8		20.0			
Chloroethane	0.1543 0.2476	0.1912	0.2494	0.2301	0.2469	Ave		0.2199			0.0500	17.7		20.0			
Dichlorofluoromethane	0.3725 0.5509	0.4178	0.5768	0.5402	0.5830	Ave		0.5069				17.6		20.0			
Trichlorofluoromethane	0.3107 0.4549	0.3855	0.4467	0.4326	0.4727	Ave		0.4172			0.1000	14.4		20.0			
Ethyl ether	0.1906 0.2453	0.2082	0.2425	0.2372	0.2480	Ave		0.2286				10.3		20.0			
Acrolein	0.0379 0.0356	0.0299	0.0323	0.0329	0.0360	Ave		0.0341				8.6		20.0			
1,1-Dichloroethene	0.3555 0.5265	0.4280	0.5369	0.4991	0.5281	Ave		0.4790			0.1000	15.1		20.0			
Acetone	+++++ 0.1056	0.1566	0.1192	0.1039	0.0988	Lin1	0.1173	0.1029			0.0100				0.9980		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.2848	0.1673	0.2782	0.2606	0.2864	Ave		0.2555			0.0500	19.7		20.0			
Iodomethane	0.3928 0.4627	0.4110	0.4526	0.4319	0.4610	Ave		0.4353				6.6		20.0			
Carbon disulfide	0.7849 0.8581	1.0236	0.8141	0.7260	0.8171	Ave		0.8373			0.1000	12.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.3504 0.3857	0.3632	0.3389	0.3492	0.3769	Ave		0.3607				5.0		20.0			
Methyl acetate	0.2313 0.2140	0.2276	0.2155	0.2066	0.2192	Ave		0.2190			0.1000	4.2		20.0			
Methylene Chloride	+++++ 0.3576	0.4410	0.3959	0.3491	0.3706	Ave		0.3828			0.1000	9.7		20.0			
2-Methyl-2-propanol	0.0247 0.0298	0.0214	0.0271	0.0260	0.0285	Ave		0.0262				11.3		20.0			
Acrylonitrile	0.0917 0.1045	0.0887	0.1017	0.1002	0.1038	Ave		0.0984				6.7		20.0			
trans-1,2-Dichloroethene	0.3245 0.3491	0.3572	0.3524	0.3424	0.3605	Ave		0.3477			0.1000	3.7		20.0			
Methyl tert-butyl ether	0.7869 0.8678	0.7533	0.8472	0.8294	0.8677	Ave		0.8254			0.1000	5.6		20.0			
Hexane	0.2438 0.2902	0.2349	0.2662	0.2595	0.2778	Ave		0.2621				7.9		20.0			
1,1-Dichloroethane	0.4042 0.4522	0.4181	0.4501	0.4390	0.4558	Ave		0.4365			0.2000	4.8		20.0			
Vinyl acetate	0.4045 0.4353	0.4208	0.3889	0.3960	0.4425	Ave		0.4147				5.2		20.0			
cis-1,2-Dichloroethene	0.3148 0.3690	0.4060	0.3712	0.3562	0.3704	Ave		0.3646			0.1000	8.1		20.0			
2-Butanone (MEK)	0.1329 0.1042	0.1093	0.1263	0.1044	0.1134	Ave		0.1151			0.0100	10.4		20.0			
2,2-Dichloropropane	0.1901 0.2047	0.1713	0.2006	0.1957	0.2025	Ave		0.1941				6.4		20.0			
Chlorobromomethane	0.2096 0.2081	0.1998	0.2125	0.2003	0.2083	Ave		0.2064				2.5		20.0			
Tetrahydrofuran	0.0720 0.0795	0.0759	0.0825	0.0775	0.0815	Ave		0.0782				4.9		20.0			
Chloroform	0.3597 0.4300	0.3989	0.4331	0.4234	0.4333	Ave		0.4131			0.2000	7.1		20.0			
1,1,1-Trichloroethane	0.2584 0.3174	0.2802	0.3075	0.3090	0.3145	Ave		0.2978			0.1000	7.9		20.0			
Cyclohexane	0.2974 0.3060	0.2183	0.2760	0.2912	0.3026	Ave		0.2819			0.1000	11.7		20.0			
1,1-Dichloropropene	0.3395 0.3666	0.3387	0.3505	0.3501	0.3605	Ave		0.3510				3.2		20.0			
Carbon tetrachloride	0.2613 0.3093	0.2264	0.2724	0.2772	0.3000	Ave		0.2744			0.1000	10.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0084 0.0093	0.0074	0.0078	0.0085	0.0097	Ave		0.0085				10.1		20.0			
Benzene	0.9773 1.0660	1.0220	1.0742	1.0397	1.0682	Ave		1.0412			0.5000	3.6		20.0			
1,2-Dichloroethane	0.3961 0.3697	0.3827	0.3803	0.3625	0.3771	Ave		0.3781			0.1000	3.1		20.0			
n-Heptane	+++++ 0.1709	0.2884	0.1629	0.1584	0.1591	Lin1	0.1055	0.1629							0.9970		0.9900
Trichloroethene	0.2541 0.2829	0.2997	0.2875	0.2799	0.2864	Ave		0.2817			0.1500	5.4		20.0			
Methylcyclohexane	0.2846 0.3569	0.2848	0.3042	0.3184	0.3339	Ave		0.3138			0.1000	9.1		20.0			
1,2-Dichloropropane	0.2495 0.2481	0.1942	0.2495	0.2437	0.2470	Ave		0.2387			0.1000	9.2		20.0			
Dibromomethane	0.1552 0.1739	0.1655	0.1743	0.1666	0.1769	Ave		0.1687				4.7		20.0			
1,4-Dioxane	+++++ 0.0032	0.0024	0.0029	0.0030	0.0035	Ave		0.0030				13.8		20.0			
Dichlorobromomethane	0.3054 0.3294	0.2754	0.3271	0.3062	0.3291	Ave		0.3121			0.1500	6.8		20.0			
2-Chloroethyl vinyl ether	0.1560 0.1849	0.1341	0.1797	0.1726	0.1870	Ave		0.1691				12.1		20.0			
cis-1,3-Dichloropropene	0.2523 0.4313	0.2934	0.3728	0.3872	0.4186	Ave		0.3593			0.1500	19.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2026 0.2453	0.2461	0.2500	0.2299	0.2496	Ave		0.2373			0.0500	7.8		20.0			
Toluene	1.4206 1.4774	1.4725	1.5025	1.4923	1.5137	Ave		1.4798			0.4000	2.2		20.0			
trans-1,3-Dichloropropene	0.2796 0.5131	0.2726	0.4215	0.4591	0.4920	Lin1	-0.174	0.4989			0.1000				0.9970		0.9900
Ethyl methacrylate	0.3130 0.4707	0.3237	0.4263	0.4409	0.4731	Ave		0.4079				17.6		20.0			
1,1,2-Trichloroethane	0.3081 0.2999	0.2772	0.3080	0.3024	0.3068	Ave		0.3004			0.1000	3.9		20.0			
1,3-Dichloropropane	0.6075 0.5716	0.5788	0.5768	0.5793	0.5784	Ave		0.5821				2.2		20.0			
Tetrachloroethene	0.3586 0.3405	0.3383	0.3436	0.3387	0.3416	Ave		0.3436			0.1500	2.2		20.0			
2-Hexanone	0.2018 0.2018	0.1934	0.2073	0.1915	0.2197	Ave		0.2026			0.0500	5.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.1404 0.3065	0.1885	0.2484	0.2756	0.2950	Lin1	-0.105	0.2984							0.9980		0.9900
Ethylene Dibromide	0.2818 0.3054	0.3040	0.3311	0.3104	0.3187	Ave		0.3086				5.4		20.0			
Chlorobenzene	0.9750 1.0017	0.9551	1.0118	1.0056	1.0282	Ave		0.9962			0.3000	2.7		20.0			
1,1,1,2-Tetrachloroethane	0.2813 0.3318	0.2359	0.3172	0.3274	0.3332	Ave		0.3045				12.7		20.0			
Ethylbenzene	0.4404 0.5339	0.4911	0.5201	0.5113	0.5358	Ave		0.5054				7.1		20.0			
m-Xylene & p-Xylene	0.5992 0.6588	0.5788	0.6697	0.6570	0.6729	Ave		0.6394				6.3		20.0			
o-Xylene	0.5545 0.6792	0.5872	0.6405	0.6521	0.6814	Ave		0.6325				8.1		20.0			
Styrene	0.8056 1.1519	0.9111	1.1233	1.1040	1.1602	Ave		1.0427			0.3000	14.2		20.0			
Bromoform	+++++ 0.1766	0.0859	0.1170	0.1416	0.1675	Lin1	-0.133	0.1694			0.1000				0.9910		0.9900
Isopropylbenzene	1.2431 1.5845	1.3447	1.5455	1.5475	1.6237	Ave		1.4815			0.1000	10.2		20.0			
1,1,2,2-Tetrachloroethane	0.7108 0.7699	0.7110	0.7430	0.7870	0.8001	Ave		0.7536			0.3000	5.1		20.0			
Bromobenzene	0.8207 0.7612	0.6939	0.7347	0.7577	0.7503	Ave		0.7530				5.5		20.0			
1,2,3-Trichloropropane	0.2485 0.2711	0.3099	0.2817	0.2863	0.2921	Ave		0.2816				7.4		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1738	0.0625	0.0690	0.1124	0.1260	Ave		0.1087				41.8	*	20.0			
N-Propylbenzene	0.6363 0.8060	0.6257	0.7201	0.7721	0.8051	Ave		0.7275				11.2		20.0			
2-Chlorotoluene	0.7681 0.7075	0.6942	0.6721	0.7044	0.7140	Ave		0.7100				4.5		20.0			
1,3,5-Trimethylbenzene	1.8942 2.3715	2.1949	2.1735	2.3146	2.3769	Ave		2.2209				8.2		20.0			
4-Chlorotoluene	0.5507 0.7519	0.7443	0.6934	0.7605	0.7709	Ave		0.7119				11.7		20.0			
tert-Butylbenzene	2.0342 2.0192	1.6703	2.0785	2.1994	2.0101	Ave		2.0019				8.8		20.0			
1,2,4-Trimethylbenzene	2.1059 2.4987	2.1501	2.3475	2.3966	2.5422	Ave		2.3402				7.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	0.4930 0.6053	0.4674	0.5469	0.5678	0.6023	Ave		0.5471				10.4		20.0			
1,3-Dichlorobenzene	1.4747 1.4345	1.3741	1.3942	1.4360	1.4594	Ave		1.4288			0.6000	2.7		20.0			
4-Isopropyltoluene	1.9791 2.4964	1.8194	2.2548	2.3826	2.4732	Ave		2.2342				12.4		20.0			
1,4-Dichlorobenzene	1.5384 1.4732	1.4645	1.4443	1.4810	1.5290	Ave		1.4884			0.5000	2.5		20.0			
n-Butylbenzene	1.9787 2.0882	1.7947	1.8431	1.9428	2.0350	Ave		1.9471				5.8		20.0			
1,2-Dichlorobenzene	1.4745 1.4141	1.3672	1.4031	1.4539	1.4554	Ave		1.4280			0.4000	2.8		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1722	0.0650	0.1512	0.1567	0.1716	Lin1	-0.120	0.1719			0.0500				0.9990		0.9900
1,2,4-Trichlorobenzene	0.8436 0.9146	0.6838	0.8064	0.8665	0.8854	Ave		0.8334			0.2000	9.8		20.0			
Hexachlorobutadiene	0.4432 0.3312	0.3109	0.2943	0.3070	0.3063	Ave		0.3322				16.8		20.0			
Naphthalene	2.4514 2.7719	2.3780	2.4048	2.6107	2.6834	Ave		2.5500				6.4		20.0			
1,2,3-Trichlorobenzene	0.9107 0.8620	0.7802	0.7873	0.8217	0.8212	Ave		0.8305				5.9		20.0			
Dibromofluoromethane (Surr)	0.1929 0.2274	0.2019	0.2216	0.2329	0.2400	Ave		0.2195				8.4		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2494 0.2961	0.2965	0.3087	0.2986	0.3032	Ave		0.2921				7.3		20.0			
Toluene-d8 (Surr)	1.2398 1.2745	1.2319	1.2744	1.2585	1.3026	Ave		1.2636				2.1		20.0			
4-Bromofluorobenzene (Surr)	0.3856 0.4810	0.4277	0.4870	0.4711	0.5020	Ave		0.4591				9.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-253710/8	UX959470.D
Level 2	STD8260 240-253710/9	UX959471.D
Level 3	STD8260 240-253710/10	UX959472.D
Level 4	ICIS 240-253710/11	UX959473.D
Level 5	STD8260 240-253710/12	UX959474.D
Level 6	STD8260 240-253710/13	UX959475.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	7215 1354562	14123	150362	320332	680696	0.500 80.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	9901 1453567	17721	185864	367090	748373	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7925 1486854	17259	187275	371300	754695	0.500 80.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	+++++ 1423385	11278	140691	329806	684778	+++++ 80.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	5102 1089114	10150	110611	226377	465972	0.500 80.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4063 1078543	9943	125457	250787	515011	0.500 80.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	9809 2399500	21731	290176	588799	1215776	0.500 80.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	8183 1981425	20048	224754	471491	985900	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5020 1068215	10830	121994	258562	517231	0.500 80.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	4996 774717	7773	81367	179175	375498	2.50 400	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	9363 2293011	22261	270090	544040	1101451	0.500 80.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 920206	16285	119921	226597	411943	+++++ 160	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	+++++ 1240587	8703	139978	284084	597254	+++++ 80.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	10343 2015382	21376	227697	470746	961379	0.500 80.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	20669 3737271	53235	409562	791343	1704128	0.500 80.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	9228 1679941	18891	170519	380582	786100	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	30458 4660013	59186	542039	1126032	2285728	2.50 400	5.00	50.0	100	200
Methylene Chloride	FB	Ave	+++++ 1557352	22938	199152	380479	772946	+++++ 80.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	6513 1295882	11111	136439	282930	594168	5.00 800	10.0	100	200	400
Acrylonitrile	FB	Ave	24154 4552207	46141	511631	1091842	2165761	5.00 800	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	8545 1520509	18575	177300	373166	751752	0.500 80.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	20723 3779507	39178	426233	903997	1809706	0.500 80.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	6420 1263719	12219	133920	282890	579408	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10644 1969405	21745	226419	478452	950553	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	10652 1895924	21884	195659	431579	922831	0.500 80.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	8290 1606902	21114	186738	388210	772577	0.500 80.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	6997 907503	11366	127084	227570	472990	1.00 160	2.00	20.0	40.0	80.0
2,2-Dichloropropane	FB	Ave	5006 891342	8909	100902	213339	422245	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	5520 906515	10389	106894	218284	434459	0.500 80.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	3793 692775	7896	82984	169018	339903	1.00 160	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	9473 1872919	20745	217895	461453	903747	0.500 80.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	6804 1382454	14575	154678	336825	655855	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	7831 1332555	11355	138838	317438	631089	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	8940 1596514	17616	176349	381603	751751	0.500 80.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6880 1347035	11775	137053	302139	625742	0.500 80.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	5499 1012918	9667	98074	231505	504642	12.5 2000	25.0	250	500	1000
Benzene	FB	Ave	25736 4642598	53152	540436	1133250	2227875	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	10431 1610337	19906	191345	395098	786494	0.500 80.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 744347	14998	81967	172616	331832	+++++ 80.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6691 1232077	15586	144653	305039	597315	0.500 80.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7496 1554611	14811	153052	347047	696424	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6571 1080421	10098	125536	265634	515135	0.500 80.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	4088 757541	8608	87680	181584	368865	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 277443	2463	29015	64911	145294	+++++ 1600	20.0	200	400	800
Dichlorobromomethane	FB	Ave	8043 1434574	14324	164581	333730	686416	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	8218 1610737	13952	180820	376178	779947	1.00 160	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	6643 1878459	15258	187548	422061	873107	0.500 80.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	10672 2136837	25597	251517	501194	1041090	1.00 160	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	29532 5186071	61194	598326	1261803	2529996	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Lin1	5813 1801088	11327	167834	388177	822247	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6506 1652174	13451	169777	372766	790770	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6405 1052853	11521	122635	255716	512844	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	12629 2006562	24055	229685	489830	966744	0.500 80.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7455 1195419	14057	136836	286414	571006	0.500 80.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	8392 1416575	16077	165132	323820	734278	1.00 160	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Lin1	2918 1075851	7834	98909	233033	493054	0.500 80.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	5858 1071955	12633	131863	262473	532697	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	20269 3516256	39691	402931	850273	1718467	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5848 1164842	9805	126319	276847	556973	0.500 80.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	9155 1874140	20408	207128	432295	895465	0.500 80.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	12456 2312443	24055	266688	555537	1124711	0.500 80.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	11527 2384189	24402	255067	551379	1138821	0.500 80.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	16747 4043520	37864	447307	933518	1939179	0.500 80.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Lin1	+++++ 619768	3569	46601	119719	280012	+++++ 80.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25842 5562069	55884	615469	1308494	2713786	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	7607 1511652	15462	175737	370559	776994	0.500 80.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8783 1494497	15089	173754	356741	728602	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2659 532370	6740	66634	134802	283668	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 341206	1360	16315	52945	122354	+++++ 80.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6810 1582609	13606	170304	363526	781811	0.500 80.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	8220 1389060	15097	158963	331668	693358	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	20272 4656383	47731	514064	1089816	2308137	0.500 80.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	5894 1476314	16185	164004	358055	748607	0.500 80.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	21770 3964535	36324	491581	1035589	1952027	0.500 80.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	22538 4906094	46757	555203	1128409	2468715	0.500 80.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	5276 1188410	10165	129358	267328	584872	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	15783 2816561	29883	329743	676138	1417159	0.500 80.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	21181 4901502	39565	533294	1121821	2401669	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	16464 2892481	31847	341584	697335	1484742	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	21177 4100036	39028	435911	914772	1976160	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	15781 2776485	29731	331849	684572	1413357	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 338136	1414	35755	73785	166645	+++++ 80.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9028 1795714	14871	190723	408008	859827	0.500 80.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4743 650351	6760	69614	144557	297461	0.500 80.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	26236 5442383	51713	568754	1229237	2605820	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9747 1692494	16966	186206	386895	797488	0.500 80.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	5080 990293	10501	111477	253847	500599	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	6569 1289603	15422	155294	325462	632418	0.500 80.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	25773 4473827	51197	507507	1064111	2177199	0.500 80.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	8016 1688410	17773	193918	398362	839102	0.500 80.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 16:20 Calibration End Date: 10/31/2016 18:20 Calibration ID: 36880

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-253710/15	UX959477.D
Level 2	STDA9 240-253710/16	UX959478.D
Level 3	STDA9 240-253710/17	UX959479.D
Level 4	STDA9 240-253710/18	UX959480.D
Level 5	STDA9 240-253710/19	UX959481.D
Level 6	STDA9 240-253710/20	UX959482.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0462 0.0341	0.0380	0.0362	0.0374	0.0347	Ave		0.0378				11.6		20.0			
Isopropyl ether	0.2411 0.2427	0.2510	0.2287	0.2353	0.2432	Ave		0.2403				3.2		20.0			
2-Chloro-1,3-butadiene	0.3500 0.3971	0.3535	0.3964	0.3741	0.3925	Ave		0.3773				5.7		20.0			
Tert-butyl ethyl ether	0.7493 0.8180	0.7652	0.8130	0.7715	0.7909	Ave		0.7846				3.5		20.0			
Ethyl acetate	0.2552 0.2432	0.2676	0.2501	0.2379	0.2457	Ave		0.2500				4.2		20.0			
Propionitrile	0.0334 0.0392	0.0406	0.0396	0.0386	0.0402	Ave		0.0386				6.8		20.0			
Methacrylonitrile	0.1529 0.1719	0.1571	0.1673	0.1623	0.1710	Ave		0.1638				4.7		20.0			
Tert-amyl methyl ether	0.6988 0.8308	0.7203	0.7975	0.7951	0.8047	Ave		0.7745				6.8		20.0			
n-Butanol	0.0061 0.0075	0.0052	0.0065	0.0070	0.0078	Ave		0.0067				14.5		20.0			
Ethyl acrylate	0.3101 0.3442	0.2921	0.3205	0.3303	0.3499	Ave		0.3245				6.7		20.0			
Methyl methacrylate	0.2051 0.2483	0.2053	0.2285	0.2360	0.2479	Ave		0.2285				8.6		20.0			
2-Nitropropane	0.0404 0.0550	0.0464	0.0421	0.0448	0.0501	Ave		0.0465				11.6		20.0			
n-Butyl acetate	0.4390 0.4832	0.3631	0.4272	0.4553	0.4863	Ave		0.4424				10.3		20.0			
1-Chlorohexane	+++++ 0.4359	0.3811	0.4213	0.4176	0.4335	Ave		0.4179				5.3		20.0			
Cyclohexanone	0.0147 0.0208	0.0163	0.0189	0.0226	0.0235	Ave		0.0195				17.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 16:20 Calibration End Date: 10/31/2016 18:20 Calibration ID: 36880

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.2215 0.2552	0.2410	0.3068	0.2335	0.2853	Lin1	-0.025	0.2640							0.9940		0.9900
1,2,3-Trimethylbenzene	2.5280 2.7740	2.3307	2.6593	2.6053	2.7573	Ave		2.6091				6.3		20.0			
Benzyl chloride	+++++ 0.3104	0.1551	0.2171	0.2455	0.2956	Lin1	-0.225	0.2981							0.9920		0.9900
1,3,5-Trichlorobenzene	0.8848 0.9975	0.8091	0.9600	0.9942	0.9772	Ave		0.9371				8.0		20.0			
2-Methylnaphthalene	0.7810 1.5380	0.7327	1.1797	1.4144	1.4289	Lin1	-1.148	1.4842							0.9960		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 16:20 Calibration End Date: 10/31/2016 18:20 Calibration ID: 36880

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-253710/15	UX959477.D
Level 2	STDA9 240-253710/16	UX959478.D
Level 3	STDA9 240-253710/17	UX959479.D
Level 4	STDA9 240-253710/18	UX959480.D
Level 5	STDA9 240-253710/19	UX959481.D
Level 6	STDA9 240-253710/20	UX959482.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	11400 1372601	19240	184138	379071	715001	5.00 800	10.0	100	200	400
Isopropyl ether	FB	Ave	5950 975446	12707	116179	238662	501502	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	8639 1596167	17896	201383	379363	809197	0.500 80.0	1.00	10.0	20.0	40.0
Tert-butyl ethyl ether	FB	Ave	18493 3287989	38742	413033	782441	1630544	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	12595 1954934	27103	254149	482544	1013328	1.00 160	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	8247 1574326	20566	201051	391535	829212	5.00 800	10.0	100	200	400
Methacrylonitrile	FB	Ave	37724 6911067	79544	849808	1646241	3526531	5.00 800	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	17247 3339406	36470	405166	806421	1659075	0.500 80.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	3757 753556	6524	82887	178636	400518	12.5 2000	25.0	250	500	1000
Ethyl acrylate	FB	Ave	7653 1383417	14790	162822	334964	721331	0.500 80.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	10124 1996191	20790	232158	478714	1022300	1.00 160	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	1995 442072	4702	42755	90851	206627	1.00 160	2.00	20.0	40.0	80.0
n-Butyl acetate	CBNZ d5	Ave	8594 1546643	14689	172476	362584	810690	0.500 80.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	+++++ 1395234	15419	170078	332548	722732	+++++ 80.0	1.00	10.0	20.0	40.0
Cyclohexanone	DCBd 4	Ave	1531 358841	3504	38455	93591	201563	5.00 800	10.0	100	200	400
Pentachloroethane	DCBd 4	Lin1	4619 880253	10368	124756	193284	490285	1.00 160	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77377-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 16:20 Calibration End Date: 10/31/2016 18:20 Calibration ID: 36880

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	26362 4784564	50136	540669	1078277	2369597	0.500 80.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Lin1	+++++ 535336	3337	44134	101589	254017	+++++ 80.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	9227 1720561	17404	195180	411456	839796	0.500 80.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	16289 5305616	31521	479694	1170741	2455942	1.00 160	2.00	20.0	40.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2533	0.1000	0.0171	0.0200	-14.4	20.0
Chloromethane	Ave	0.3526	0.3515	0.1000	0.0199	0.0200	-0.3	20.0
Vinyl chloride	Ave	0.3415	0.3456	0.1000	0.0202	0.0200	1.2	20.0
Butadiene	Ave	0.2909	0.3127		0.0215	0.0200	7.5	30.0
Bromomethane	Ave	0.2150	0.2223	0.0500	0.0207	0.0200	3.4	20.0
Chloroethane	Ave	0.2199	0.2452	0.0500	0.0223	0.0200	11.5	20.0
Dichlorofluoromethane	Ave	0.5069	0.5584		0.0220	0.0200	10.2	20.0
Trichlorofluoromethane	Ave	0.4172	0.4225	0.1000	0.0203	0.0200	1.3	20.0
Ethyl ether	Ave	0.2286	0.2300		0.0201	0.0200	0.6	20.0
Acrolein	Ave	0.0341	0.0543		0.159	0.100	59.1*	50.0
1,1-Dichloroethene	Ave	0.4790	0.4601	0.1000	0.0192	0.0200	-4.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2481	0.0500	0.0194	0.0200	-2.9	20.0
Acetone	Lin1		0.0845	0.0100	0.0317	0.0400	-20.7	50.0
Iodomethane	Ave	0.4353	0.4584		0.0211	0.0200	5.3	20.0
Carbon disulfide	Ave	0.8373	0.7252	0.1000	0.0173	0.0200	-13.4	20.0
3-Chloro-1-propene	Ave	0.3607	0.3451		0.0191	0.0200	-4.3	20.0
Methyl acetate	Ave	0.2190	0.2129	0.1000	0.0972	0.100	-2.8	20.0
Methylene Chloride	Ave	0.3828	0.3604	0.1000	0.0188	0.0200	-5.9	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0282		0.215	0.200	7.6	50.0
Acrylonitrile	Ave	0.0984	0.1032		0.210	0.200	4.8	20.0
Methyl tert-butyl ether	Ave	0.8254	0.8372	0.1000	0.0203	0.0200	1.4	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3345	0.1000	0.0192	0.0200	-3.8	20.0
Hexane	Ave	0.2621	0.2567		0.0196	0.0200	-2.0	20.0
1,1-Dichloroethane	Ave	0.4365	0.4281	0.2000	0.0196	0.0200	-1.9	20.0
Vinyl acetate	Ave	0.4147	0.3918		0.0189	0.0200	-5.5	50.0
2-Butanone (MEK)	Ave	0.1151	0.1224	0.0100	0.0426	0.0400	6.4	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3542	0.1000	0.0194	0.0200	-2.9	20.0
2,2-Dichloropropane	Ave	0.1941	0.1822		0.0188	0.0200	-6.1	20.0
Chlorobromomethane	Ave	0.2064	0.2118		0.0205	0.0200	2.6	20.0
Tetrahydrofuran	Ave	0.0782	0.0777		0.0398	0.0400	-0.6	20.0
Chloroform	Ave	0.4131	0.4211	0.2000	0.0204	0.0200	1.9	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.3065	0.1000	0.0206	0.0200	2.9	20.0
Cyclohexane	Ave	0.2819	0.2737	0.1000	0.0194	0.0200	-2.9	20.0
1,1-Dichloropropene	Ave	0.3510	0.3315		0.0189	0.0200	-5.6	20.0
Carbon tetrachloride	Ave	0.2744	0.2728	0.1000	0.0199	0.0200	-0.6	20.0
Isobutyl alcohol	Ave	0.0085	0.0090		0.531	0.500	6.1	20.0
1,2-Dichloroethane	Ave	0.3781	0.3730	0.1000	0.0197	0.0200	-1.4	20.0
Benzene	Ave	1.041	1.037	0.5000	0.0199	0.0200	-0.4	20.0
n-Heptane	Lin1		0.1424		0.0168	0.0200	-15.8	20.0
Trichloroethene	Ave	0.2817	0.2733	0.1500	0.0194	0.0200	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.3031	0.1000	0.0193	0.0200	-3.4	20.0
1,2-Dichloropropane	Ave	0.2387	0.2474	0.1000	0.0207	0.0200	3.7	20.0
1,4-Dioxane	Ave	0.0030	0.0033		0.443	0.400	10.8	50.0
Dibromomethane	Ave	0.1687	0.1663		0.0197	0.0200	-1.4	20.0
Dichlorobromomethane	Ave	0.3121	0.3023	0.1500	0.0194	0.0200	-3.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1779		0.0210	0.0200	5.2	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3907	0.1500	0.0218	0.0200	8.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2443	0.0500	0.0412	0.0400	2.9	20.0
Toluene	Ave	1.480	1.413	0.4000	0.0191	0.0200	-4.5	20.0
trans-1,3-Dichloropropene	Lin1		0.4109	0.1000	0.0168	0.0200	-15.9	20.0
Ethyl methacrylate	Ave	0.4079	0.4428		0.0217	0.0200	8.5	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2990	0.1000	0.0199	0.0200	-0.5	20.0
1,3-Dichloropropane	Ave	0.5821	0.5487		0.0189	0.0200	-5.7	20.0
Tetrachloroethene	Ave	0.3436	0.3278	0.1500	0.0191	0.0200	-4.6	20.0
2-Hexanone	Ave	0.2026	0.2188	0.0500	0.0432	0.0400	8.0	20.0
Chlorodibromomethane	Lin1		0.2534		0.0173	0.0200	-13.3	20.0
Ethylene Dibromide	Ave	0.3086	0.3139		0.0203	0.0200	1.7	20.0
Chlorobenzene	Ave	0.996	0.9792	0.3000	0.0197	0.0200	-1.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.3082		0.0202	0.0200	1.2	20.0
Ethylbenzene	Ave	0.5054	0.4868		0.0193	0.0200	-3.7	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6106		0.0191	0.0200	-4.5	20.0
o-Xylene	Ave	0.6325	0.6033		0.0191	0.0200	-4.6	20.0
Styrene	Ave	1.043	1.068	0.3000	0.0205	0.0200	2.4	20.0
Bromoform	Lin1		0.1338	0.1000	0.0166	0.0200	-17.1	20.0
Isopropylbenzene	Ave	1.482	1.476	0.1000	0.0199	0.0200	-0.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.8038	0.3000	0.0213	0.0200	6.7	20.0
Bromobenzene	Ave	0.7530	0.7621		0.0202	0.0200	1.2	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2807		0.0199	0.0200	-0.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.0976		0.0179	0.0200	-10.3	20.0
N-Propylbenzene	Ave	0.7275	0.7555		0.0208	0.0200	3.8	20.0
2-Chlorotoluene	Ave	0.7100	0.7027		0.0198	0.0200	-1.0	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.248		0.0202	0.0200	1.2	20.0
4-Chlorotoluene	Ave	0.7119	0.7423		0.0209	0.0200	4.3	20.0
tert-Butylbenzene	Ave	2.002	1.877		0.0188	0.0200	-6.2	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.374		0.0203	0.0200	1.4	20.0
sec-Butylbenzene	Ave	0.5471	0.5588		0.0204	0.0200	2.1	20.0
1,3-Dichlorobenzene	Ave	1.429	1.429	0.6000	0.0200	0.0200	0.0	20.0
4-Isopropyltoluene	Ave	2.234	2.314		0.0207	0.0200	3.6	20.0
1,4-Dichlorobenzene	Ave	1.488	1.507	0.5000	0.0202	0.0200	1.2	20.0
n-Butylbenzene	Ave	1.947	1.835		0.0189	0.0200	-5.7	20.0
1,2-Dichlorobenzene	Ave	1.428	1.430	0.4000	0.0200	0.0200	0.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1570	0.0500	0.0190	0.0200	-5.2	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.8250	0.2000	0.0198	0.0200	-1.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2855		0.0172	0.0200	-14.1	20.0
Naphthalene	Ave	2.550	2.625		0.0206	0.0200	3.0	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.8077		0.0195	0.0200	-2.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2034		0.0185	0.0200	-7.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2643		0.0181	0.0200	-9.5	20.0
Toluene-d8 (Surr)	Ave	1.264	1.172		0.0185	0.0200	-7.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4615		0.0201	0.0200	0.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-253710/23 Calibration Date: 10/31/2016 19:33

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959485.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2195	0.2007		0.0183	0.0200	-8.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2628		0.0180	0.0200	-10.0	20.0
Toluene-d8 (Surr)	Ave	1.264	1.168		0.0185	0.0200	-7.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4371		0.0190	0.0200	-4.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 240-253710/23 Calibration Date: 10/31/2016 19:33

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 16:20

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 18:20

Lab File ID: UX959485.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0378	0.0359		0.190	0.200	-4.9	20.0
Isopropyl ether	Ave	0.2403	0.2383		0.0198	0.0200	-0.9	20.0
2-Chloro-1,3-butadiene	Ave	0.3773	0.3737		0.0198	0.0200	-1.0	20.0
Tert-butyl ethyl ether	Ave	0.7846	0.7774		0.0198	0.0200	-0.9	20.0
Propionitrile	Ave	0.0386	0.0394		0.204	0.200	2.1	20.0
Ethyl acetate	Ave	0.2500	0.2360		0.0378	0.0400	-5.6	50.0
Methacrylonitrile	Ave	0.1638	0.1653		0.202	0.200	0.9	20.0
Tert-amyl methyl ether	Ave	0.7745	0.7819		0.0202	0.0200	1.0	20.0
n-Butanol	Ave	0.0067	0.0070		0.526	0.500	5.2	20.0
Ethyl acrylate	Ave	0.3245	0.3193		0.0197	0.0200	-1.6	20.0
Methyl methacrylate	Ave	0.2285	0.2347		0.0411	0.0400	2.7	20.0
2-Nitropropane	Ave	0.0465	0.0446		0.0384	0.0400	-4.1	20.0
n-Butyl acetate	Ave	0.4424	0.4390		0.0198	0.0200	-0.8	30.0
1-Chlorohexane	Ave	0.4179	0.3933		0.0188	0.0200	-5.9	20.0
Cyclohexanone	Ave	0.0195	0.0199		0.205	0.200	2.3	20.0
Pentachloroethane	Lin1		0.3010		0.0457	0.0400	14.3	20.0
1,2,3-Trimethylbenzene	Ave	2.609	2.524		0.0193	0.0200	-3.3	20.0
Benzyl chloride	Lin1		0.2112		0.0149	0.0200	-25.4*	20.0
1,3,5-Trichlorobenzene	Ave	0.9371	0.8841		0.0189	0.0200	-5.7	20.0
2-Methylnaphthalene	Lin1		1.173		0.0324	0.0400	-19.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab File ID: BFB3620.D BFB Injection Date: 04/07/2017

Instrument ID: A3UX9 BFB Injection Time: 08:24

Analysis Batch No.: 273734

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.4	
75	30.0 - 60.0 % of mass 95	50.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	89.1	
175	5.0 - 9.0 % of mass 174	6.2	(7.0) 1
176	95.0 - 101.0 % of mass 174	84.9	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-273734/3	UX962956.D	04/07/2017	08:52
	LCS 240-273734/4	UX962957.D	04/07/2017	09:16
	CCV 240-273734/5	UX962958.D	04/07/2017	09:40
	MB 240-273734/7	UX962960.D	04/07/2017	10:28
MRC-MW102A-032817	240-77377-4	UX962964.D	04/07/2017	12:58
MRC-DUP04-032817	240-77377-7	UX962965.D	04/07/2017	13:21
	240-77416-B-3 MS	UX962971.D	04/07/2017	15:44
	240-77416-B-3 MSD	UX962972.D	04/07/2017	16:08

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCVIS 240-273734/3 Calibration Date: 04/07/2017 08:52

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962956.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2838	0.1000	0.0192	0.0200	-4.1	20.0
Chloromethane	Ave	0.3526	0.4102	0.1000	0.0233	0.0200	16.3	20.0
Vinyl chloride	Ave	0.3415	0.3824	0.1000	0.0224	0.0200	12.0	20.0
Butadiene	Ave	0.2909	0.2717		0.0187	0.0200	-6.6	20.0
Bromomethane	Ave	0.2150	0.2269	0.0500	0.0211	0.0200	5.5	20.0
Chloroethane	Ave	0.2199	0.2647	0.0500	0.0241	0.0200	20.3*	20.0
Dichlorofluoromethane	Ave	0.5069	0.6006		0.0237	0.0200	18.5	20.0
Trichlorofluoromethane	Ave	0.4172	0.3885	0.1000	0.0186	0.0200	-6.9	20.0
Ethyl ether	Ave	0.2286	0.2206		0.0193	0.0200	-3.5	20.0
Acrolein	Ave	0.0341	0.0393		0.115	0.100	15.1	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2239	0.0500	0.0175	0.0200	-12.4	20.0
1,1-Dichloroethene	Ave	0.4790	0.4947	0.1000	0.0207	0.0200	3.3	20.0
Acetone	Lin1		0.1006	0.0100	0.0380	0.0400	-5.1	50.0
Iodomethane	Ave	0.4353	0.4740		0.0218	0.0200	8.9	20.0
Carbon disulfide	Ave	0.8373	0.8651	0.1000	0.0207	0.0200	3.3	20.0
3-Chloro-1-propene	Ave	0.3607	0.3085		0.0171	0.0200	-14.5	20.0
Methyl acetate	Ave	0.2190	0.2051	0.1000	0.0937	0.100	-6.3	20.0
Methylene Chloride	Ave	0.3828	0.3960	0.1000	0.0207	0.0200	3.4	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0259		0.197	0.200	-1.3	50.0
Acrylonitrile	Ave	0.0984	0.1105		0.225	0.200	12.3	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7573	0.1000	0.0183	0.0200	-8.3	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3683	0.1000	0.0212	0.0200	5.9	20.0
Hexane	Ave	0.2621	0.2185		0.0167	0.0200	-16.6	20.0
1,1-Dichloroethane	Ave	0.4365	0.4196	0.2000	0.0192	0.0200	-3.9	20.0
Vinyl acetate	Ave	0.4147	0.3886		0.0187	0.0200	-6.3	50.0
2-Butanone (MEK)	Ave	0.1151	0.1322	0.0100	0.0460	0.0400	14.9	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3624	0.1000	0.0199	0.0200	-0.6	20.0
2,2-Dichloropropane	Ave	0.1941	0.1477		0.0152	0.0200	-23.9*	20.0
Chlorobromomethane	Ave	0.2064	0.1956		0.0190	0.0200	-5.2	20.0
Tetrahydrofuran	Ave	0.0782	0.0801		0.0410	0.0400	2.5	20.0
Chloroform	Ave	0.4131	0.4322	0.2000	0.0209	0.0200	4.6	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2615	0.1000	0.0176	0.0200	-12.2	20.0
Cyclohexane	Ave	0.2819	0.2650	0.1000	0.0188	0.0200	-6.0	20.0
1,1-Dichloropropene	Ave	0.3510	0.3363		0.0192	0.0200	-4.2	20.0
Carbon tetrachloride	Ave	0.2744	0.2615	0.1000	0.0191	0.0200	-4.7	20.0
Isobutyl alcohol	Ave	0.0085	0.0076		0.445	0.500	-11.0	20.0
1,2-Dichloroethane	Ave	0.3781	0.3542	0.1000	0.0187	0.0200	-6.3	20.0
Benzene	Ave	1.041	1.069	0.5000	0.0205	0.0200	2.7	20.0
n-Heptane	Lin1		0.1406		0.0166	0.0200	-16.9	20.0
Trichloroethene	Ave	0.2817	0.2715	0.1500	0.0193	0.0200	-3.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCVIS 240-273734/3 Calibration Date: 04/07/2017 08:52

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962956.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2701	0.1000	0.0172	0.0200	-13.9	20.0
1,2-Dichloropropane	Ave	0.2387	0.2388	0.1000	0.0200	0.0200	0.0	20.0
1,4-Dioxane	Ave	0.0030	0.0027		0.365	0.400	-8.7	50.0
Dibromomethane	Ave	0.1687	0.1868		0.0221	0.0200	10.7	20.0
Dichlorobromomethane	Ave	0.3121	0.3180	0.1500	0.0204	0.0200	1.9	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1612		0.0381	0.0400	-4.7	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3884	0.1500	0.0216	0.0200	8.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2424	0.0500	0.0409	0.0400	2.2	20.0
Toluene	Ave	1.480	1.344	0.4000	0.0182	0.0200	-9.2	20.0
trans-1,3-Dichloropropene	Lin1		0.4130	0.1000	0.0169	0.0200	-15.5	20.0
Ethyl methacrylate	Ave	0.4079	0.3665		0.0180	0.0200	-10.2	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2787	0.1000	0.0186	0.0200	-7.2	20.0
1,3-Dichloropropane	Ave	0.5821	0.5089		0.0175	0.0200	-12.6	20.0
Tetrachloroethene	Ave	0.3436	0.3118	0.1500	0.0182	0.0200	-9.2	20.0
2-Hexanone	Ave	0.2026	0.2157	0.0500	0.0426	0.0400	6.5	20.0
Chlorodibromomethane	Lin1		0.2585		0.0177	0.0200	-11.6	20.0
Ethylene Dibromide	Ave	0.3086	0.2797		0.0181	0.0200	-9.4	20.0
Chlorobenzene	Ave	0.996	0.8884	0.3000	0.0178	0.0200	-10.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2842		0.0187	0.0200	-6.7	20.0
Ethylbenzene	Ave	0.5054	0.4552		0.0180	0.0200	-9.9	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.5820		0.0182	0.0200	-9.0	20.0
o-Xylene	Ave	0.6325	0.5641		0.0178	0.0200	-10.8	20.0
Styrene	Ave	1.043	0.9875	0.3000	0.0189	0.0200	-5.3	20.0
Bromoform	Lin1		0.1641	0.1000	0.0202	0.0200	0.8	20.0
Isopropylbenzene	Ave	1.482	1.373	0.1000	0.0185	0.0200	-7.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7129	0.3000	0.0189	0.0200	-5.4	20.0
Bromobenzene	Ave	0.7530	0.6612		0.0176	0.0200	-12.2	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2570		0.0183	0.0200	-8.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.2006		0.0369	0.0200	84.5*	20.0
N-Propylbenzene	Ave	0.7275	0.6448		0.0177	0.0200	-11.4	20.0
2-Chlorotoluene	Ave	0.7100	0.5853		0.0165	0.0200	-17.6	20.0
1,3,5-Trimethylbenzene	Ave	2.221	1.935		0.0174	0.0200	-12.9	20.0
4-Chlorotoluene	Ave	0.7119	0.6376		0.0179	0.0200	-10.4	20.0
tert-Butylbenzene	Ave	2.002	1.714		0.0171	0.0200	-14.4	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.076		0.0177	0.0200	-11.3	20.0
sec-Butylbenzene	Ave	0.5471	0.4793		0.0175	0.0200	-12.4	20.0
1,3-Dichlorobenzene	Ave	1.429	1.259	0.6000	0.0176	0.0200	-11.9	20.0
4-Isopropyltoluene	Ave	2.234	1.970		0.0176	0.0200	-11.8	20.0
1,4-Dichlorobenzene	Ave	1.488	1.301	0.5000	0.0175	0.0200	-12.6	20.0
n-Butylbenzene	Ave	1.947	1.648		0.0169	0.0200	-15.4	20.0
1,2-Dichlorobenzene	Ave	1.428	1.224	0.4000	0.0171	0.0200	-14.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCVIS 240-273734/3 Calibration Date: 04/07/2017 08:52

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962956.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1365	0.0500	0.0166	0.0200	-17.1	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.6307	0.2000	0.0151	0.0200	-24.3	50.0
Hexachlorobutadiene	Ave	0.3322	0.2720		0.0164	0.0200	-18.1	20.0
Naphthalene	Ave	2.550	1.896		0.0149	0.0200	-25.6	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.5614		0.0135	0.0200	-32.4*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2359		0.0215	0.0200	7.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2973		0.0204	0.0200	1.8	20.0
Toluene-d8 (Surr)	Ave	1.264	1.202		0.0190	0.0200	-4.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4368		0.0190	0.0200	-4.9	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Sample No.: STD8260 240-272388/4 Date Analyzed: 03/29/2017 10:38

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ1044.D Heated Purge: (Y/N) N

Calibration ID: 39174

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		838554	5.04	622679	7.70	302532	9.94
UPPER LIMIT		1677108	5.54	1245358	8.20	605064	10.44
LOWER LIMIT		419277	4.54	311340	7.20	151266	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272388/15		836158	5.04	620506	7.70	304045	9.94
ICV 240-272388/14		897373	5.04	658178	7.70	317428	9.94
CCVIS 240-272768/2		890785	5.04	669824	7.70	315717	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Sample No.: CCVIS 240-272768/2 Date Analyzed: 03/31/2017 10:13

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ1120.D Heated Purge: (Y/N) N

Calibration ID: 39177

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		890785	5.04	669824	7.70	315717	9.94
UPPER LIMIT		1781570	5.54	1339648	8.20	631434	10.44
LOWER LIMIT		445393	4.54	334912	7.20	157859	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-272768/4		887519	5.04	667787	7.70	324823	9.94
CCV 240-272768/3		882286	5.04	665506	7.70	319868	9.94
MB 240-272768/6		867163	5.04	651083	7.70	311097	9.94
240-77377-1	TB-032817	867607	5.04	649072	7.70	310345	9.94
200-37906-B-3 MS		886887	5.04	666352	7.70	324576	9.94
200-37906-B-3 MSD		840604	5.04	636778	7.70	309764	9.94

FB = Fluorobenzene
FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4
Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Sample No.: ICIS 240-272263/9 Date Analyzed: 03/29/2017 15:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1391.D Heated Purge: (Y/N) N

Calibration ID: 39180

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		776481	5.24	664123	7.92	397614	10.16
UPPER LIMIT		1552962	5.74	1328246	8.42	795228	10.66
LOWER LIMIT		388241	4.74	332062	7.42	198807	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272263/20		753863	5.24	641867	7.92	381510	10.16
ICV 240-272263/21		762653	5.24	636920	7.92	364890	10.16
CCVIS 240-273345/3		897794	5.24	675148	7.93	390768	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Sample No.: CCVIS 240-273345/3 Date Analyzed: 04/05/2017 08:54

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1525.D Heated Purge: (Y/N) N

Calibration ID: 39171

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		897794	5.24	675148	7.93	390768	10.16
UPPER LIMIT		1795588	5.74	1350296	8.43	781536	10.66
LOWER LIMIT		448897	4.74	337574	7.43	195384	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-273345/4		881107	5.24	654796	7.92	384150	10.16
CCV 240-273345/5		863952	5.24	636390	7.93	350519	10.16
MB 240-273345/7		810678	5.24	618129	7.92	339586	10.16
240-77450-B-4 MS		807748	5.24	594902	7.92	346126	10.16
240-77450-B-4 MSD		830041	5.24	622082	7.93	353973	10.16
240-77377-2	MRC-MW101A-032817	752303	5.25	556127	7.93	314985	10.16
240-77377-3	MRC-MW101B-032817	754160	5.24	576322	7.93	309956	10.16
240-77377-4	MRC-MW102A-032817	749827	5.24	571390	7.93	316080	10.16
240-77377-6	MRC-MW79B-032817	752319	5.24	581946	7.93	311841	10.16
240-77377-7	MRC-DUP04-032817	771289	5.25	592068	7.93	318118	10.16

FB = Fluorobenzene
FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4
Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Sample No.: ICIS 240-253710/11 Date Analyzed: 10/31/2016 14:44

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX959473.D Heated Purge: (Y/N) N

Calibration ID: 36877

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1089945	5.72	845544	8.42	470846	10.66
UPPER LIMIT		2179890	6.22	1691088	8.92	941692	11.16
LOWER LIMIT		544973	5.22	422772	7.92	235423	10.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-253710/22		1016048	5.72	819306	8.42	452555	10.66
ICV 240-253710/23		997454	5.73	808908	8.42	436301	10.65
CCVIS 240-273734/3		1016373	5.73	893332	8.41	518103	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Sample No.: CCVIS 240-273734/3 Date Analyzed: 04/07/2017 08:52

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX962956.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1016373	5.73	893332	8.41	518103	10.65
UPPER LIMIT		2032746	6.23	1786664	8.91	1036206	11.15
LOWER LIMIT		508187	5.23	446666	7.91	259052	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-273734/4		1046466	5.72	932905	8.41	545576	10.65
CCV 240-273734/5		1031666	5.72	903221	8.41	474848	10.65
MB 240-273734/7		942794	5.73	822316	8.41	451752	10.65
240-77377-4	MRC-MW102A-032817	971614	5.72	846002	8.41	443262	10.65
240-77377-7	MRC-DUP04-032817	977612	5.74	845067	8.41	460258	10.65
240-77416-B-3 MS		1025864	5.73	899440	8.41	531920	10.65
240-77416-B-3 MSD		1041877	5.72	896283	8.41	552660	10.65

FB = Fluorobenzene
FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
CBNZd5 = Chlorobenzene-d5
Area Limit = 50%-200% of internal standard area
DCBd4 = 1,4-Dichlorobenzene-d4
RT Limit = ± 0.5 minutes of internal standard RT
DCBd4 = 1,4-Dichlorobenzene-d4

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Instrument ID: A3UX9 Start Date: 10/31/2016 12:14

Analysis Batch Number: 253710 End Date: 10/31/2016 21:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-253710/1		10/31/2016 12:14	1	BFB3479.D	DB-624 0.18(mm)
STD8260 240-253710/8 IC		10/31/2016 13:31	1	UX959470.D	DB-624 0.18(mm)
STD8260 240-253710/9 IC		10/31/2016 13:55	1	UX959471.D	DB-624 0.18(mm)
STD8260 240-253710/10 IC		10/31/2016 14:20	1	UX959472.D	DB-624 0.18(mm)
ICIS 240-253710/11		10/31/2016 14:44	1	UX959473.D	DB-624 0.18(mm)
STD8260 240-253710/12 IC		10/31/2016 15:08	1	UX959474.D	DB-624 0.18(mm)
STD8260 240-253710/13 IC		10/31/2016 15:31	1	UX959475.D	DB-624 0.18(mm)
STDA9 240-253710/15 IC		10/31/2016 16:20	1	UX959477.D	DB-624 0.18(mm)
STDA9 240-253710/16 IC		10/31/2016 16:44	1	UX959478.D	DB-624 0.18(mm)
STDA9 240-253710/17 IC		10/31/2016 17:08	1	UX959479.D	DB-624 0.18(mm)
STDA9 240-253710/18 IC		10/31/2016 17:32	1	UX959480.D	DB-624 0.18(mm)
STDA9 240-253710/19 IC		10/31/2016 17:56	1	UX959481.D	DB-624 0.18(mm)
STDA9 240-253710/20 IC		10/31/2016 18:20	1	UX959482.D	DB-624 0.18(mm)
ICV 240-253710/22		10/31/2016 19:09	1	UX959484.D	DB-624 0.18(mm)
ICV 240-253710/23		10/31/2016 19:33	1	UX959485.D	DB-624 0.18(mm)
MDLV 240-253710/24		10/31/2016 19:57	1		DB-624 0.18(mm)
MDLV 240-253710/25		10/31/2016 20:22	1		DB-624 0.18(mm)
MDLV 240-253710/26		10/31/2016 20:46	1		DB-624 0.18(mm)
ZZZZZ		10/31/2016 21:10	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Instrument ID: A3UX16 Start Date: 03/29/2017 13:36

Analysis Batch Number: 272263 End Date: 03/29/2017 21:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272263/1		03/29/2017 13:36	1	BFB5200.D	DB-624 0.18(mm)
STD8260 240-272263/6 IC		03/29/2017 14:02	1	UXM1388.D	DB-624 0.18(mm)
STD8260 240-272263/7 IC		03/29/2017 14:25	1	UXM1389.D	DB-624 0.18(mm)
STD8260 240-272263/8 IC		03/29/2017 14:48	1	UXM1390.D	DB-624 0.18(mm)
ICIS 240-272263/9		03/29/2017 15:11	1	UXM1391.D	DB-624 0.18(mm)
STD8260 240-272263/10 IC		03/29/2017 15:34	1	UXM1392.D	DB-624 0.18(mm)
STD8260 240-272263/11 IC		03/29/2017 15:56	1	UXM1393.D	DB-624 0.18(mm)
STDA9 240-272263/13 IC		03/29/2017 16:47	1	UXM1395.D	DB-624 0.18(mm)
STDA9 240-272263/14 IC		03/29/2017 17:10	1	UXM1396.D	DB-624 0.18(mm)
STDA9 240-272263/15 IC		03/29/2017 17:33	1	UXM1397.D	DB-624 0.18(mm)
STDA9 240-272263/16 IC		03/29/2017 17:55	1	UXM1398.D	DB-624 0.18(mm)
STDA9 240-272263/17 IC		03/29/2017 18:18	1	UXM1399.D	DB-624 0.18(mm)
STDA9 240-272263/18 IC		03/29/2017 18:41	1	UXM1400.D	DB-624 0.18(mm)
ICV 240-272263/20		03/29/2017 19:27	1	UXM1402.D	DB-624 0.18(mm)
ICV 240-272263/21		03/29/2017 19:50	1	UXM1403.D	DB-624 0.18(mm)
MDLV 240-272263/22		03/29/2017 20:13	1		DB-624 0.18(mm)
MDLV 240-272263/23		03/29/2017 20:37	1		DB-624 0.18(mm)
MDLV 240-272263/24		03/29/2017 21:00	1		DB-624 0.18(mm)
ZZZZZ		03/29/2017 21:23	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Instrument ID: A3UX11 Start Date: 03/29/2017 09:21

Analysis Batch Number: 272388 End Date: 03/29/2017 15:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272388/1		03/29/2017 09:21	1	BFB70329.D	DB-624 0.18(mm)
STD8260 240-272388/2 IC		03/29/2017 09:53	1	UXJ1042.D	DB-624 0.18(mm)
STD8260 240-272388/3 IC		03/29/2017 10:15	1	UXJ1043.D	DB-624 0.18(mm)
STD8260 240-272388/4 ICIS		03/29/2017 10:38	1	UXJ1044.D	DB-624 0.18(mm)
STD8260 240-272388/5 IC		03/29/2017 11:01	1	UXJ1045.D	DB-624 0.18(mm)
STD8260 240-272388/6 IC		03/29/2017 11:24	1	UXJ1046.D	DB-624 0.18(mm)
STD8260 240-272388/7 IC		03/29/2017 11:46	1	UXJ1047.D	DB-624 0.18(mm)
STD6 240-272388/8 IC		03/29/2017 12:31	1	UXJ1049.D	DB-624 0.18(mm)
STD5 240-272388/9 IC		03/29/2017 12:54	1	UXJ1050.D	DB-624 0.18(mm)
STD4 240-272388/10 IC		03/29/2017 13:16	1	UXJ1051.D	DB-624 0.18(mm)
STD3 240-272388/11 IC		03/29/2017 13:39	1	UXJ1052.D	DB-624 0.18(mm)
STD2 240-272388/12 IC		03/29/2017 14:02	1	UXJ1053.D	DB-624 0.18(mm)
STD1 240-272388/13 IC		03/29/2017 14:24	1	UXJ1054.D	DB-624 0.18(mm)
ICV 240-272388/15		03/29/2017 14:47	1	UXJ1055.D	DB-624 0.18(mm)
ICV 240-272388/14		03/29/2017 15:09	1	UXJ1056.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Instrument ID: A3UX11 Start Date: 03/31/2017 09:45

Analysis Batch Number: 272768 End Date: 03/31/2017 20:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272768/1		03/31/2017 09:45	1	BFB70331.D	DB-624 0.18(mm)
CCVIS 240-272768/2		03/31/2017 10:13	1	UXJ1120.D	DB-624 0.18(mm)
LCS 240-272768/4		03/31/2017 10:35	1	UXJ1121.D	DB-624 0.18(mm)
CCV 240-272768/3		03/31/2017 10:58	1	UXJ1122.D	DB-624 0.18(mm)
ZZZZZ		03/31/2017 11:21	1		DB-624 0.18(mm)
MB 240-272768/6		03/31/2017 11:44	1	UXJ1124.D	DB-624 0.18(mm)
ZZZZZ		03/31/2017 12:07	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 12:29	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 12:52	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 13:15	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 13:38	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 14:00	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 14:23	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 14:46	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:09	3.33		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:31	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:54	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 16:17	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 16:40	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:02	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:25	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:48	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 18:10	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 18:33	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 18:56	1		DB-624 0.18(mm)
240-77377-1		03/31/2017 19:18	1	UXJ1144.D	DB-624 0.18(mm)
200-37906-B-3 MS		03/31/2017 19:41	3.33	UXJ1145.D	DB-624 0.18(mm)
200-37906-B-3 MSD		03/31/2017 20:04	3.33	UXJ1146.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Instrument ID: A3UX16 Start Date: 04/05/2017 08:29

Analysis Batch Number: 273345 End Date: 04/05/2017 18:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-273345/1		04/05/2017 08:29	1	BFB5206.D	DB-624 0.18(mm)
CCVIS 240-273345/3		04/05/2017 08:54	1	UXM1525.D	DB-624 0.18(mm)
LCS 240-273345/4		04/05/2017 09:17	1	UXM1526.D	DB-624 0.18(mm)
CCV 240-273345/5		04/05/2017 09:40	1	UXM1527.D	DB-624 0.18(mm)
MDLV 240-273345/6		04/05/2017 10:03	1		DB-624 0.18(mm)
MB 240-273345/7		04/05/2017 10:26	1	UXM1529.D	DB-624 0.18(mm)
ZZZZZ		04/05/2017 11:17	100		DB-624 0.18(mm)
ZZZZZ		04/05/2017 11:41	100		DB-624 0.18(mm)
ZZZZZ		04/05/2017 12:03	100		DB-624 0.18(mm)
ZZZZZ		04/05/2017 12:27	100		DB-624 0.18(mm)
240-77450-B-4 MS		04/05/2017 12:50	100	UXM1534.D	DB-624 0.18(mm)
240-77450-B-4 MSD		04/05/2017 13:13	100	UXM1535.D	DB-624 0.18(mm)
240-77377-2		04/05/2017 14:02	1	UXM1537.D	DB-624 0.18(mm)
240-77377-3		04/05/2017 14:25	1	UXM1538.D	DB-624 0.18(mm)
240-77377-4		04/05/2017 14:49	1	UXM1539.D	DB-624 0.18(mm)
240-77377-6		04/05/2017 15:12	50	UXM1540.D	DB-624 0.18(mm)
240-77377-7		04/05/2017 15:35	1	UXM1541.D	DB-624 0.18(mm)
ZZZZZ		04/05/2017 15:58	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 16:22	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 16:45	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 17:08	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 17:31	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 17:55	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 18:18	1		DB-624 0.18(mm)
ZZZZZ		04/05/2017 18:41	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77377-1

SDG No.:

Instrument ID: A3UX9 Start Date: 04/07/2017 08:24

Analysis Batch Number: 273734 End Date: 04/07/2017 16:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-273734/1		04/07/2017 08:24	1	BFB3620.D	DB-624 0.18(mm)
CCVIS 240-273734/3		04/07/2017 08:52	1	UX962956.D	DB-624 0.18(mm)
LCS 240-273734/4		04/07/2017 09:16	1	UX962957.D	DB-624 0.18(mm)
CCV 240-273734/5		04/07/2017 09:40	1	UX962958.D	DB-624 0.18(mm)
MDLV 240-273734/6		04/07/2017 10:04	1		DB-624 0.18(mm)
MB 240-273734/7		04/07/2017 10:28	1	UX962960.D	DB-624 0.18(mm)
ZZZZZ		04/07/2017 11:15	1		DB-624 0.18(mm)
ZZZZZ		04/07/2017 11:39	1		DB-624 0.18(mm)
ZZZZZ		04/07/2017 12:03	1		DB-624 0.18(mm)
240-77377-4		04/07/2017 12:58	1	UX962964.D	DB-624 0.18(mm)
240-77377-7		04/07/2017 13:21	1	UX962965.D	DB-624 0.18(mm)
ZZZZZ		04/07/2017 13:45	1		DB-624 0.18(mm)
ZZZZZ		04/07/2017 14:09	1.25		DB-624 0.18(mm)
ZZZZZ		04/07/2017 14:33	10		DB-624 0.18(mm)
ZZZZZ		04/07/2017 14:57	20		DB-624 0.18(mm)
ZZZZZ		04/07/2017 15:20	12.5		DB-624 0.18(mm)
240-77416-B-3 MS		04/07/2017 15:44	10	UX962971.D	DB-624 0.18(mm)
240-77416-B-3 MSD		04/07/2017 16:08	10	UX962972.D	DB-624 0.18(mm)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW101A-032817	240-77377-2	103
MRC-MW101B-032817	240-77377-3	105
MRC-MW102B-032817	240-77377-5	104
MRC-MW79B-032817	240-77377-6	106
	MB 200-115743/1-A	116
	LCS 200-115743/2-A	102
	LCSD 200-115743/3-A	104

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24703_52.D

Lab ID: LCS 200-115743/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	2.17	108	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24703_53.D

Lab ID: LCSD 200-115743/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	2.00	2.20	110	1	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Lab File ID: Z24703_54.D Lab Sample ID: MB 200-115743/1-A

Matrix: Water Date Extracted: 04/12/2017 09:25

Instrument ID: CHZ.i Date Analyzed: 04/13/2017 00:52

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-115743/2-A	Z24703_52.D	04/13/2017 00:18
	LCSD 200-115743/3-A	Z24703_53.D	04/13/2017 00:35
MRC-MW101A-032817	240-77377-2	Z24703_59.D	04/13/2017 02:17
MRC-MW101B-032817	240-77377-3	Z24703_60.D	04/13/2017 02:34
MRC-MW102B-032817	240-77377-5	Z24703_61.D	04/13/2017 02:51
MRC-MW79B-032817	240-77377-6	Z24719_02.D	04/13/2017 09:24

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77377-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-115743/1-A

Matrix: Water | Lab File ID: Z24703_54.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 04/12/2017 09:25

Sample wt/vol: 100(mL) | Date Analyzed: 04/13/2017 00:52

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	116		46-130

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Lab File ID: Z24230_01.D BFB Injection Date: 03/08/2017

Instrument ID: CHZ.i BFB Injection Time: 10:08

Analysis Batch No.: 114713

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 80.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.3	
175	5.0 - 9.0 % of mass 174	4.9	(7.2) 1
176	>95.0 but <101.0 % of mass 174	66.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-114713/2	Z24230_02.D	03/08/2017	10:20
	IC 200-114713/3	Z24230_03.D	03/08/2017	10:37
	IC 200-114713/4	Z24230_04.D	03/08/2017	10:54
	ICIS 200-114713/5	Z24230_05.D	03/08/2017	11:12
	IC 200-114713/6	Z24230_06.D	03/08/2017	11:29
	IC 200-114713/7	Z24230_07.D	03/08/2017	11:46
	IC 200-114713/8	Z24230_08.D	03/08/2017	12:03
	ICV 200-114713/9	Z24230_09.D	03/08/2017	12:21

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-77377-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-77377-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	2773 110705	6218 242998	14480	27995	48146	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	134256 141434	151964 143621	134009	136068	115570	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Lab Sample ID: ICV 200-114713/9 Calibration Date: 03/08/2017 12:21

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_09.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5752	0.0500	184	200	-7.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Lab File ID: Z24401_03.D BFB Injection Date: 03/22/2017

Instrument ID: CHZ.i BFB Injection Time: 15:37

Analysis Batch No.: 115085

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 80.0 % of mass 95	45.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	80.7	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	>95.0 but <101.0 % of mass 174	77.4	(95.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVL 200-115085/4	Z24401_04.D	03/22/2017	15:48
	CCV 200-115745/49	Z24703_49.D	04/12/2017	23:27
	LCS 200-115743/2-A	Z24703_52.D	04/13/2017	00:18
	LCSD 200-115743/3-A	Z24703_53.D	04/13/2017	00:35
	MB 200-115743/1-A	Z24703_54.D	04/13/2017	00:52
MRC-MW101A-032817	240-77377-2	Z24703_59.D	04/13/2017	02:17
MRC-MW101B-032817	240-77377-3	Z24703_60.D	04/13/2017	02:34
MRC-MW102B-032817	240-77377-5	Z24703_61.D	04/13/2017	02:51
	CCV 200-115745/63	Z24703_63.D	04/13/2017	03:25
	CCVL 200-115776/1	Z24719_01.D	04/13/2017	09:08
MRC-MW79B-032817	240-77377-6	Z24719_02.D	04/13/2017	09:24
	CCV 200-115776/12	Z24719_12.D	04/13/2017	12:13

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCVL 200-115085/4 Calibration Date: 03/22/2017 15:48

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_04.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7735	0.0500	12.4	10.0	23.9	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6057	0.0500	502	500	0.3	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCV 200-115745/49 Calibration Date: 04/12/2017 23:27

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24703_49.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6942	0.0500	889	800	11.2	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7213	0.0500	597	500	19.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCV 200-115745/63 Calibration Date: 04/13/2017 03:25

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24703_63.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6903	0.0500	111	100	10.5	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7258	0.0500	601	500	20.2	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCVL 200-115776/1 Calibration Date: 04/13/2017 09:08

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24719_01.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7779	0.0500	12.5	10.0	24.6	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7157	0.0500	593	500	18.6	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Lab Sample ID: CCV 200-115776/12 Calibration Date: 04/13/2017 12:13

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24719_12.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7321	0.0500	117	100	17.2	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7191	0.0500	596	500	19.1	30.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77377-1

SDG No.:

Sample No.: ICIS 200-114713/5 Date Analyzed: 03/08/2017 11:12

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24230_05.D Heated Purge: (Y/N) N

Calibration ID: 36785

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224595	3.32				
UPPER LIMIT		336893	3.82				
LOWER LIMIT		112298	2.82				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-114713/9		202920	3.32				
CCVL 200-115085/4		270907	3.25				
CCV 200-115745/49		197762	3.21				
LCS 200-115743/2-A		223421	3.20				
LCSD 200-115743/3-A		209467	3.22				
MB 200-115743/1-A		221990	3.25				
240-77377-2	MRC-MW101A-032817	209623	3.21				
240-77377-3	MRC-MW101B-032817	221011	3.21				
240-77377-5	MRC-MW102B-032817	215252	3.22				
CCV 200-115745/63		207162	3.21				
CCVL 200-115776/1		192190	3.23				
240-77377-6	MRC-MW79B-032817	201426	3.22				
CCV 200-115776/12		164476	3.18				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

VOA Calibration Calculations:

Initial Calibration 3/29/2017
Instrument A3UX16

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.5	25623	746810	20	1.3724	1.3724
1	42454	756844	20	1.1219	1.1219
10	480702	786905	20	1.2218	1.2218
20	935627	776481	20	1.2050	1.205
40	2019515	786289	20	1.2842	1.2842
60	3154247	859912	20	1.2227	1.2227
			Average	1.2380	1.238
			Standard Deviation	0.0840	
			RSD	0.0678	
			%RSD	6.7846	6.8

Internal standard for benzene is fluorobenzene

Continuing Calibration 04/05/2017@ 8:54
Instrument A3UX16

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
20	952294	897794	20	1.0607	-15.121781	1.061	-14.3

MRC Groundwater
SDG 240-77377-1

SAMPLE IDENTIFICATION	MRC-MW101A-032817	
COMPOUND	cis-1.2-dichloroethene	
COMPOUND AREA	368771	
INTERNAL STANDARD AMOUNT (ng)	20	
DILUTION FACTOR	1	
INTERNAL STANDARD AREA	752303	
AVERAGE RRF	0.3518	
VOLUME OF SAMPLE	5	
VOLUME OF EXTRACT	5.00	
CONCENTRATION =	27.87	ug/L

SVOA Calibration Calculations:

Initial Calibration 3/8/2017
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.01	2773	226947	0.5	0.6109	0.6109
0.02	6218	251612	0.5	0.6178	0.6178
0.05	14480	218926	0.5	0.6614	0.6614
0.1	27995	224595	0.5	0.6232	0.6232
0.2	48146	200782	0.5	0.5995	0.5995
0.4	110705	227238	0.5	0.6090	0.609
0.8	242998	233784	0.5	0.6496	0.6496
			Average	0.6245	0.6245
			Standard Deviation	0.0227	
			RSD	0.0363	
			%RSD	3.6347	3.6

Continuing Calibration 04/13/2017@ 3:25
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
0.1	28600	207162	0.5	0.6903	10.200342	0.6903	10.5

MRC Groundwater
SDG 240-77377-1

SAMPLE IDENTIFICATION	MRC-MW79B-032817	
COMPOUND	1,4-Dioxane	
COMPOUND AREA	103158	
INTERNAL STANDARD AMOUNT (ng)	0.5	
DILUTION FACTOR	1.667	
INTERNAL STANDARD AREA	201426	
AVERAGE RRF	0.6245	
VOLUME OF SAMPLE	100	
VOLUME OF EXTRACT	2000.00	
CONCENTRATION =	13.67	ug/L

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **MAY 23, 2017**

FROM: **L. GANSER** **COPIES:** **DV FILE**

SUBJECT: **DATA VALIDATION – VOC, 1,4-DIOXANE, OVG, PCB HOMOLOGS, METALS, MISCELLANEOUS**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC)
SAMPLE DELIVERY GROUP (SDG) 240-77416-1

SAMPLES: 26/Aqueous/

MRC-DUP05-033017	MRC-MW07A-040517	MRC-MW102B-032917
MRC-MW106B/C-033017	MRC-MW107B/C-033017	MRC-MW113A-032917
MRC-MW114A-032917	MRC-MW14A-033017	MRC-MW14C-033017
MRC-MW17A-040517	MRC-MW19A-040317	MRC-MW21A-040317
MRC-MW21B-040317	MRC-MW22A-040317	MRC-MW37A-032917
MRC-MW37B-032917	MRC-MW38A-033117	MRC-MW38B-033117
MRC-MW50A-040417	MRC-MW90B-040417	MRC-MW96A-040417
MRC-MW96B-040417	TB-032917	TB-033117
TB-040317	TB-040418	

Overview

The sample set for LMC-MRC, SDG 240-77416-1 consisted of twenty-two (22) aqueous environmental samples and four (4) trip blanks. The samples were analyzed for volatile organic compounds (VOC), 1,4-dioxane, organic volatile gases (OVG), polychlorinated biphenyls (PCB) homologs, metals, and/or miscellaneous parameters including alkalinity, ammonia, chloride, dissolved organic carbon (DOC), nitrate, nitrite, orthophosphate, phosphate, sulfate, and total dissolved solids (TDS). The trip blanks were only analyzed for VOC. One field duplicate sample pair was included in this SDG: MRC-MW106B/C-033017 / MRC-DUP05-033017.

The samples were collected by Tetra Tech on March 29 to 31 and April 3 to 4, 2017 and analyzed by TestAmerica, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C for VOC, 6010C/6020A/7470A for metals, and 9060 for DOC, RSK-175 for OVG, EPA methods 522 for 1,4-dioxane, 680 for PCB homologs, 300 for anions, and 350 for ammonia, and standard methods 2320B for alkalinity, 2540C for TDS, and 4500 for orthosphosphate/phosphate analytical and reporting protocols.

The data contained in this SDG were validated with regard the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/preparation blanks, Interference Check Sample (ICS), surrogate spike recoveries, laboratory control sample/laboratory control sample duplicate results, internal standard areas and recoveries, ICP serial dilution results, field duplicate precision, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were noted.

Minor

- VOC continuing calibration percent difference (%D) was greater than quality control (QC) limits (20%) on 3/31/2017 at 10:13 for bromomethane, 2-butanone, and bromoform affecting sample TB-032917 in batch 272768. All results for these parameters were nondetect and were qualified as estimated (UJ).

- VOC continuing calibration %D was greater than 20% QC limits on 4/10/2017 at 12:23 for 1,1,2-trichlorotrifluoroethane affecting sample MRC-MW113A-032917 and MRC-MW114A-032917 in batch 274011. All results for these parameters were nondetect and were qualified as estimated (UJ).

- VOC continuing calibration %D was greater than 20% QC limits on 4/07/2017 at 8:52 for chloromethane, 1,2,4-trichlorobenzene, and 1,2,3-trichlorobenzene affecting samples in batch 273734. All results for these parameters were qualified as estimated (J) and (UJ), for detected and nondetected results, respectively.

- VOC continuing calibration %D was greater than 20% QC limits on 4/10//2017 at 8:36 for dichlorodifluoromethane and 1,2,4-trichlorobenzene affecting samples in batch 273938. All results for these parameters were nondetect and were qualified as estimated (UJ).

- VOC continuing calibration %D was greater than 20% QC limits on 4/11/2017 at 8:51 for 1,1,2-trichlorotrifluoroethane, carbon disulfide, and methylcyclohexane affecting sample MRC-MW17A-040517 in batch 274127. All results for these parameters were qualified as estimated (J) and (UJ), for detected and nondetected results, respectively.

- Methylene chloride was detected in the laboratory blanks at the following maximum concentration:

Parameter	Maximum Concentration (ug/L)	Action Level (ug/L)
Methylene chloride(1)	1.45	14.5
Methylene chloride(2)	1.57	15.7
Methylene chloride(3)	0.892	8.92

1 – Concentration in method blank affecting samples in batch 273734.
2 – Concentration in method blank affecting samples in batch 273938.
3 – Concentration in method blank affecting samples in batch 274127.

Dilution factor, if applicable, was taken into consideration when evaluating for blank contamination. Detected results reported below the action level were qualified as non-detected, (U), due to blank contamination. The trip blanks were not qualified for laboratory blank contamination.

- PCB homolog continuing calibration %D was greater than 20% QC limits on 4/14/2017 at 12:34 for nonachlorobiphenyl affecting all samples. Nondetected results for nonachlorobiphenyls were qualified as estimated (UJ).

- The following analytes were detected in the laboratory preparation and calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration (ug/L)	Reporting Limit (RL) (> or <)
Potassium(1)	80.9	< RL
Barium(1)	1.34	< RL
Chromium(1)	0.334	< RL
Copper(1)	0.665	< RL

Analyte	Maximum Concentration (ug/L)	Reporting Limit (RL) (> or <)
Antimony(2)	0.902	< RL
Beryllium(2)	0.104	< RL

Cadmium[2]	0.126	< RL
Cobalt[2]	0.117	< RL
Lead[2]	0.234	< RL
Manganese[2]	1.15	< RL
Molybdenum[2]	0.748	< RL
Nickel[2]	1.52	< RL
Silver[2]	0.036	< RL
Thallium[2]	0.112	< RL
Zinc[2]	11.6	< RL
Barium[3]	1.45	< RL
Copper[3]	0.797	< RL
Beryllium[4]	0.099	< RL
Cadmium[4]	0.325	< RL
Cobalt[4]	0.342	< RL
Lead[4]	0.523	< RL
Manganese[4]	1.23	< RL
Molybdenum[4]	1.09	< RL
Nickel[4]	1.83	< RL
Selenium[4]	0.419	< RL
Silver[4]	0.153	< RL
Thallium[4]	0.352	< RL
Vanadium[4]	0.355	< RL
Antimony[5]	4.69	> RL
Antimony[6]	1.34	< RL
Zinc[7]	13.9	< RL
Zinc[8]	18.0	< RL

1. Concentration in calibration blank affecting samples in batch 272772.
2. Maximum concentration in continuing calibration blanks on 4/04/2017 at 17:54 and 18:35 affecting sample MRC-MW37A-032917.
3. Concentration in method blank affecting samples in batch 272983.
4. Maximum concentration in continuing calibration blanks on 4/04/2017 at 15:11, 16:01, and 16:26 affecting all samples, except MRC-MW37A-032917.
5. Concentration in method blank affecting samples in batch 272983 except MRC-MW14A-033017 and MRC-MW107B/C-033017.
6. Concentration in continuing calibration blanks on 4/05/2017 at 13:25 and 13:54 affecting samples MRC-MW14A-033017 and MRC-MW107B/C-033017.
7. Concentration in method blank affecting samples in batch 272983 except MRC-MW107B/C-033017.
8. Concentration in continuing calibration blanks on 4/05/2017 at 13:25 and 13:54 affecting sample MRC-MW107B/C-033017.

Dilution factor, if applicable, was taken into consideration when evaluating for blank contamination. Detected results reported below the RL were qualified as non-detected, (U), due to blank contamination.

- Matrix spike/matrix spike duplicate percent recovery was less than QC limits for iron. Post digestion spike recovery was greater than QC limits for iron. Results for iron were qualified as estimated (J).

- Serial dilution percent difference was greater than 10 percent for potassium, silica, and iron. Results for these analytes were qualified as estimated (J).

- Dissolved organic carbon was present in the method blank (240-274401) at 0.155 mg/L, which is less than the RL. Results for dissolved organic carbon less than the RL in samples from batch 274401 were qualified as nondetect (U) due to blank contamination.

- Detected results reported below the RL limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Non-detected results were reported to the MDL.

The following samples were analyzed at dilution for VOCs resulting in elevated detection limits for nondetected results:

Sample	Dilution
MRC-MW102B-032917	12.5x
MRC-MW113A-032917	20x
MRC-MW114A-032917	10x
MRC-MW17A-040517	4x
MRC-MW21B-040317	12.5x
MRC-MW37B-032917	1.25x
MRC-MW96A-040417	500x
MRC-MW96B-040417	12.5x

PCB homolog matrix spike/matrix spike duplicate (MS/MSD) percent recoveries (%Rs) were greater than QC limits for all PCB homologs, except monochlorobiphenyls. Nondetected results were not qualified.

Executive Summary

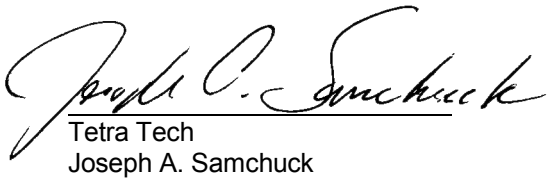
Laboratory Performance: Calibration noncompliance was noted for VOCs and PCB homologs. Methylene chloride, metals, and dissolved organic carbon were present in laboratory preparation and method blanks. Serial dilution noncompliance was noted for metals.

Other Factors Affecting Data Quality: Matrix spike noncompliance was noted for PCB homologs but did not affect sample results.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Review" (January 2017) and the "National Functional Guidelines for Inorganic Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.



Tetra Tech
Leanne M. Ganser
Environmental Scientist/Data Validator



Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-DUP05-033017			MRC-MW102B-032917			MRC-MW106B/C-033017			MRC-MW107B/C-033017		
SDG: 240-77416-1	LAB_ID	240-77566-8			240-77416-6			240-77566-3			240-77566-4		
FRACTION: OV	SAMP_DATE	3/30/2017			3/29/2017			3/30/2017			3/30/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW106B/C-033017											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		2.9	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		4	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		4.3	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		5.1	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.54	J	P	3.1	U		0.58	J	P	0.25	U	
1,1-DICHLOROETHENE		0.27	U		3.4	U		0.27	U		0.27	U	
1,2,3-TRICHLOROBENZENE													
1,2,4-TRICHLOROBENZENE		0.27	U		4.4	J	CP	0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		5.9	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		2.9	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		3.3	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		3.8	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		3.8	U		0.3	U		0.3	U	
1,3,5-TRICHLOROBENZENE													
1,3-DICHLOROBENZENE		0.32	U		4	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		2.9	U		0.23	U		0.23	U	
2-BUTANONE		1	U		13	U		1	U		1	U	
2-HEXANONE		1.2	U		15	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		8.9	U		0.71	U		0.71	U	
ACETONE		2.5	J	P	22	U		1.8	J	P	1.8	U	
BENZENE		0.28	U		3.5	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		3.8	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		5.4	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		5.3	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	U		4.3	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		4.4	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		4	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		3.1	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		5.1	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		3.9	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		5.4	UJ	C	0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.31	J	P	520			0.34	J	P	0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		3.3	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		5.5	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		6.3	U		0.5	U		0.5	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW113A-032917			MRC-MW114A-032917			MRC-MW14A-033017			MRC-MW14C-033017		
SDG: 240-77416-1	LAB_ID	240-77416-4			240-77416-3			240-77566-1			240-77566-2		
FRACTION: OV	SAMP_DATE	3/29/2017			3/29/2017			3/30/2017			3/30/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		4.6	U		2.3	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		6.4	U		3.2	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		6.8	U		3.4	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		8.2	UJ	C	4.1	UJ	C	0.41	U		0.41	U	
1,1-DICHLOROETHANE		5	U		2.5	U		0.54	J	P	0.25	U	
1,1-DICHLOROETHENE		5.4	U		2.7	U		0.43	J	P	0.27	U	
1,2,3-TRICHLOROBENZENE		62	J	C	92	J	C						
1,2,4-TRICHLOROBENZENE		230	J	C	320	J	C	0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		9.4	U		4.7	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		4.6	U		2.3	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		17	J	P	18			0.26	U		0.26	U	
1,2-DICHLOROETHANE		6	U		400			0.3	U		0.3	U	
1,2-DICHLOROPROPANE		6	U		4.2	J	P	0.3	U		0.3	U	
1,3,5-TRICHLOROBENZENE		6.6	U		3.3	U							
1,3-DICHLOROBENZENE		32			7.2	J	P	0.32	U		0.32	U	
1,4-DICHLOROBENZENE		50			51			0.23	U		0.23	U	
2-BUTANONE		20	U		10	U		1	U		1	U	
2-HEXANONE		25	U		12	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		14	U		7.1	U		0.71	U		0.71	U	
ACETONE		35	U		18	U		1.8	U		1.8	U	
BENZENE		5.6	U		2.8	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		6	U		3	U		0.3	U		0.3	U	
BROMOFORM		8.6	U		4.3	U		0.43	U		0.43	U	
BROMOMETHANE		8.4	U		4.2	U		0.42	U		0.42	U	
CARBON DISULFIDE		6.8	U		3.4	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		7	U		3.5	U		0.35	U		0.35	U	
CHLOROBENZENE		54			120			0.32	U		0.32	U	
CHLORODIBROMOMETHANE		5	U		2.5	U		0.25	U		0.25	U	
CHLOROETHANE		8.2	U		4.1	U		0.41	U		0.41	U	
CHLOROFORM		6.2	U		3.1	U		0.31	U		0.31	U	
CHLOROMETHANE		8.6	UJ	C	4.3	UJ	C	0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		6	U		3	U		5.2			0.3	U	
CIS-1,3-DICHLOROPROPENE		5.2	U		2.6	U		0.26	U		0.26	U	
CYCLOHEXANE		8.8	U		4.4	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		10	U		5	U		0.5	U		0.5	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW17A-040517			MRC-MW19A-040317			MRC-MW21A-040317			MRC-MW21B-040317		
SDG: 240-77416-1	LAB_ID	240-77761-6			240-77601-4			240-77601-1			240-77601-2		
FRACTION: OV	SAMP_DATE	4/5/2017			4/3/2017			4/3/2017			4/3/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.92	U		0.23	U		0.23	U		2.9	U	
1,1,2,2-TETRACHLOROETHANE		1.3	U		0.32	U		0.32	U		4	U	
1,1,2-TRICHLOROETHANE		1.4	U		0.34	U		0.34	U		4.3	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.6	UJ	C	0.41	U		0.41	U		5.1	U	
1,1-DICHLOROETHANE		1	U		2.5			1.2			17		
1,1-DICHLOROETHENE		1.1	U		0.27	U		0.5	J	P	160		
1,2,3-TRICHLOROBENZENE													
1,2,4-TRICHLOROBENZENE		1.1	U		0.27	U		0.27	U		3.4	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.9	U		0.47	U		0.47	U		5.9	U	
1,2-DIBROMOETHANE		0.92	U		0.23	U		0.23	U		2.9	U	
1,2-DICHLOROBENZENE		1	U		0.26	U		0.26	U		3.3	U	
1,2-DICHLOROETHANE		1.2	U		0.3	U		0.3	U		3.8	U	
1,2-DICHLOROPROPANE		1.2	U		0.3	U		0.3	U		3.8	U	
1,3,5-TRICHLOROBENZENE													
1,3-DICHLOROBENZENE		1.3	U		0.32	U		0.32	U		4	U	
1,4-DICHLOROBENZENE		0.92	U		0.23	U		0.23	U		2.9	U	
2-BUTANONE		4.1	U		1	U		1	U		13	U	
2-HEXANONE		4.9	U		1.2	U		1.2	U		15	U	
4-METHYL-2-PENTANONE		2.8	U		0.71	U		0.71	U		8.9	U	
ACETONE		7	U		1.8	U		2.6	J	P	22	U	
BENZENE		110			0.28	U		0.28	U		21		
BROMODICHLOROMETHANE		1.2	U		0.3	U		0.3	U		3.8	U	
BROMOFORM		1.7	U		0.43	U		0.43	U		5.4	U	
BROMOMETHANE		1.7	U		0.42	U		0.42	U		5.3	U	
CARBON DISULFIDE		1.4	UJ	C	0.34	U		0.34	U		4.3	U	
CARBON TETRACHLORIDE		1.4	U		0.35	U		0.35	U		4.4	U	
CHLOROBENZENE		1.3	U		0.32	U		0.32	U		4	U	
CHLORODIBROMOMETHANE		1	U		0.25	U		0.25	U		3.1	U	
CHLOROETHANE		1.6	U		0.41	U		0.41	U		5.1	U	
CHLOROFORM		1.2	U		0.6	J	P	0.31	U		3.9	U	
CHLOROMETHANE		1.7	U		0.43	U		0.43	U		5.4	U	
CIS-1,2-DICHLOROETHENE		1.2	U		0.3	U		0.3	U		6.1	J	P
CIS-1,3-DICHLOROPROPENE		1	U		0.26	U		0.26	U		3.3	U	
CYCLOHEXANE		32			0.44	U		0.44	U		5.5	U	
DICHLORODIFLUOROMETHANE		2	U		0.5	U		0.5	U		6.3	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW22A-040317			MRC-MW37A-032917			MRC-MW37B-032917			MRC-MW38A-033117		
SDG: 240-77416-1	LAB_ID	240-77601-3			240-77416-1			240-77416-2			240-77566-6		
FRACTION: OV	SAMP_DATE	4/3/2017			3/29/2017			3/29/2017			3/31/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.29	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.4	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.43	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.51	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.31	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.34	U		0.27	U	
1,2,3-TRICHLOROBENZENE													
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	UJ	C	0.34	UJ	C	0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.59	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.29	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.33	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.38	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.38	U		0.3	U	
1,3,5-TRICHLOROBENZENE													
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.4	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.29	U		0.23	U	
2-BUTANONE		1	U		1	U		1.3	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.5	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.89	U		0.71	U	
ACETONE		1.8	U		1.8	U		2.2	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.35	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.38	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.54	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.53	U		0.42	U	
CARBON DISULFIDE		0.34	U		0.34	U		0.43	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.44	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.4	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.31	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.51	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.39	U		5.9		
CHLOROMETHANE		0.43	U		0.43	UJ	C	0.54	UJ	C	0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		9			0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.33	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.55	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.63	U		0.5	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW38B-033117			MRC-MW50A-040417			MRC-MW90B-040417			MRC-MW96A-040417		
SDG: 240-77416-1	LAB_ID	240-77566-7			240-77761-2			240-77761-3			240-77761-4		
FRACTION: OV	SAMP_DATE	3/31/2017			4/4/2017			4/4/2017			4/4/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		120	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		160	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		170	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		210	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		130	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		3			140	U	
1,2,3-TRICHLOROBENZENE													
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	UJ	C	0.27	UJ	C	140	UJ	C
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		240	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		120	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		130	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		150	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		150	U	
1,3,5-TRICHLOROBENZENE													
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		160	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		120	U	
2-BUTANONE		1	U		1	U		1	U		510	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		620	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		360	U	
ACETONE		1.8	U		1.8	U		1.9	J	P	880	U	
BENZENE		0.28	U		0.28	U		0.28	U		140	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		150	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		220	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		210	U	
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		170	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		180	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		160	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		130	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		210	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		160	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		220	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.87	J	P	29000		
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		130	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		220	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	UJ	C	0.5	UJ	C	250	UJ	C

PROJ_NO: 07776	NSAMPLE	MRC-MW96B-040417			TB-032917			TB-033117			TB-040317		
SDG: 240-77416-1	LAB_ID	240-77761-5			240-77416-5			240-77566-5			240-77601-5		
FRACTION: OV	SAMP_DATE	4/4/2017			3/29/2017			3/31/2017			4/3/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	2.9	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE	4	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE	4.3	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	5.1	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE	3.1	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE	3.4	U		0.27	U		0.27	U		0.27	U	
1,2,3-TRICHLOROBENZENE				0.35	U							
1,2,4-TRICHLOROBENZENE	3.4	UJ	C	0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE	5.9	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE	2.9	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE	3.3	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE	3.8	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE	3.8	U		0.3	U		0.3	U		0.3	U	
1,3,5-TRICHLOROBENZENE				0.33	U							
1,3-DICHLOROBENZENE	4	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE	2.9	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE	13	U		1	UJ	C	1	U		1	U	
2-HEXANONE	15	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE	8.9	U		0.71	U		0.71	U		0.71	U	
ACETONE	22	U		1.8	U		1.8	U		1.8	U	
BENZENE	720			0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE	3.8	U		0.3	U		0.3	U		0.3	U	
BROMOFORM	5.4	U		0.43	UJ	C	0.43	U		0.43	U	
BROMOMETHANE	5.3	U		0.42	UJ	C	0.42	U		0.42	U	
CARBON DISULFIDE	4.3	U		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE	4.4	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE	4	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE	3.1	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE	5.1	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM	3.9	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE	5.4	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE	11	J	P	0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE	3.3	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE	11	J	P	0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE	6.3	UJ	C	0.5	U		0.5	U		0.5	U	

PROJ_NO: 07776	NSAMPLE	TB-040418		
SDG: 240-77416-1	LAB_ID	240-77761-1		
FRACTION: OV	SAMP_DATE	4/4/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U	
1,1-DICHLOROETHANE		0.25	U	
1,1-DICHLOROETHENE		0.27	U	
1,2,3-TRICHLOROBENZENE				
1,2,4-TRICHLOROBENZENE		0.27	UJ	C
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U	
1,2-DIBROMOETHANE		0.23	U	
1,2-DICHLOROBENZENE		0.26	U	
1,2-DICHLOROETHANE		0.3	U	
1,2-DICHLOROPROPANE		0.3	U	
1,3,5-TRICHLOROBENZENE				
1,3-DICHLOROBENZENE		0.32	U	
1,4-DICHLOROBENZENE		0.23	U	
2-BUTANONE		1	U	
2-HEXANONE		1.2	U	
4-METHYL-2-PENTANONE		0.71	U	
ACETONE		1.8	U	
BENZENE		0.28	U	
BROMODICHLOROMETHANE		0.3	U	
BROMOFORM		0.43	U	
BROMOMETHANE		0.42	U	
CARBON DISULFIDE		0.34	U	
CARBON TETRACHLORIDE		0.35	U	
CHLOROBENZENE		0.32	U	
CHLORODIBROMOMETHANE		0.25	U	
CHLOROETHANE		0.41	U	
CHLOROFORM		0.31	U	
CHLOROMETHANE		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U	
CYCLOHEXANE		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C

PROJ_NO: 07776	NSAMPLE	MRC-DUP05-033017			MRC-MW102B-032917			MRC-MW106B/C-033017			MRC-MW107B/C-033017		
SDG: 240-77416-1	LAB_ID	240-77566-8			240-77416-6			240-77566-3			240-77566-4		
FRACTION: OV	SAMP_DATE	3/30/2017			3/29/2017			3/30/2017			3/30/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW106B/C-033017											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.26	U		3.3	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		2.6	U		0.21	U		0.21	U	
METHYL ACETATE		1.4	U		18	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		5.6	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		3.4	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		33	U	A	0.53	U		0.53	U	
STYRENE		0.23	U		2.9	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		3.8	U		0.3	U		0.3	U	
TOLUENE		0.23	U		2.9	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		3	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	J	P	4	J	P	0.37	J	P	0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		3.9	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	J	P	150			0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		6.3	U		0.5	U		0.5	U	
VINYL CHLORIDE		5.2			5.6	U		5.3			0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW113A-032917			MRC-MW114A-032917			MRC-MW14A-033017			MRC-MW14C-033017		
SDG: 240-77416-1	LAB_ID	240-77416-4			240-77416-3			240-77566-1			240-77566-2		
FRACTION: OV	SAMP_DATE	3/29/2017			3/29/2017			3/30/2017			3/30/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		5.2	U		2.6	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		4.2	U		2.1	U		0.21	U		0.21	U	
METHYL ACETATE		29	U		14	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		9	U		4.5	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		5.4	U		2.7	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		53	U	A	26	U	A	0.53	U		0.53	U	
STYRENE		4.6	U		2.3	U		0.23	U		0.23	U	
TETRACHLOROETHENE		52			3	U		0.3	U		0.3	U	
TOLUENE		4.6	U		2.3	U		0.23	U		0.23	U	
TOTAL XYLENES		4.8	U		2.4	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		5.8	U		2.9	U		0.89	J	P	0.29	U	
TRANS-1,3-DICHLOROPROPENE		6.2	U		3.1	U		0.31	U		0.31	U	
TRICHLOROETHENE		25			6.1	J	P	1.1			0.33	U	
TRICHLOROFLUOROMETHANE		810			180			0.5	U		0.5	U	
VINYL CHLORIDE		9	U		4.5	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW17A-040517			MRC-MW19A-040317			MRC-MW21A-040317			MRC-MW21B-040317		
SDG: 240-77416-1	LAB_ID	240-77761-6			240-77601-4			240-77601-1			240-77601-2		
FRACTION: OV	SAMP_DATE	4/5/2017			4/3/2017			4/3/2017			4/3/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		44			0.26	U		0.26	U		3.3	U	
ISOPROPYLBENZENE		3.2	J	P	0.21	U		0.21	U		12	J	P
METHYL ACETATE		5.7	U		1.4	U		1.4	U		18	U	
METHYL CYCLOHEXANE		13	J	C	0.45	U		0.45	U		5.6	U	
METHYL TERT-BUTYL ETHER		1.1	U		0.27	U		0.27	U		3.4	U	
METHYLENE CHLORIDE		2.1	U		0.53	U		0.53	U		6.6	U	
STYRENE		0.92	U		0.23	U		0.23	U		2.9	U	
TETRACHLOROETHENE		1.2	U		0.3	U		0.3	U		8.5	J	P
TOLUENE		7.9			0.23	U		0.23	U		2.9	U	
TOTAL XYLENES		13			0.24	U		0.24	U		3	U	
TRANS-1,2-DICHLOROETHENE		1.2	U		0.29	U		0.29	U		3.6	U	
TRANS-1,3-DICHLOROPROPENE		1.2	U		0.31	U		0.31	U		3.9	U	
TRICHLOROETHENE		7.5			0.33	U		0.76	J	P	570		
TRICHLOROFLUOROMETHANE		2	U		1.2			0.5	U		6.3	U	
VINYL CHLORIDE		1.8	U		0.45	U		0.45	U		5.6	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW22A-040317			MRC-MW37A-032917			MRC-MW37B-032917			MRC-MW38A-033117		
SDG: 240-77416-1	LAB_ID	240-77601-3			240-77416-1			240-77416-2			240-77566-6		
FRACTION: OV	SAMP_DATE	4/3/2017			3/29/2017			3/29/2017			3/31/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.26	U		0.26	U		0.33	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.26	U		0.21	U	
METHYL ACETATE		1.4	U		1.4	U		1.8	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.56	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.34	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		2.3	U	A	0.53	U	
STYRENE		0.23	U		0.23	U		0.29	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.38	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.29	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.3	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.36	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.39	U		0.31	U	
TRICHLOROETHENE		0.94	J	P	4.5			64			0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.63	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.56	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW38B-033117			MRC-MW50A-040417			MRC-MW90B-040417			MRC-MW96A-040417		
SDG: 240-77416-1	LAB_ID	240-77566-7			240-77761-2			240-77761-3			240-77761-4		
FRACTION: OV	SAMP_DATE	3/31/2017			4/4/2017			4/4/2017			4/4/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		130	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		110	U	
METHYL ACETATE		1.4	U		1.4	U		1.4	U		720	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		230	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		140	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		720	U	A
STYRENE		0.23	U		0.23	U		0.23	U		120	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		150	U	
TOLUENE		0.23	U		0.23	U		0.23	U		120	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		120	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		150	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		160	U	
TRICHLOROETHENE		0.33	U		7.6			28			3300		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		250	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		230	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW96B-040417			TB-032917			TB-033117			TB-040317		
SDG: 240-77416-1	LAB_ID	240-77761-5			240-77416-5			240-77566-5			240-77601-5		
FRACTION: OV	SAMP_DATE	4/4/2017			3/29/2017			3/31/2017			4/3/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHYLBENZENE		6.2	J	P	0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		10	J	P	0.21	U		0.21	U		0.21	U	
METHYL ACETATE		18	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		5.6	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		34			0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		15	U	A	0.53	U		0.53	U		0.53	U	
STYRENE		2.9	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		3.8	U		0.3	U		0.3	U		0.3	U	
TOLUENE		2.9	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		110			0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		3.6	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		3.9	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		12	J	P	0.33	U		0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		6.3	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		5.6	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	TB-040418		
SDG: 240-77416-1	LAB_ID	240-77761-1		
FRACTION: OV	SAMP_DATE	4/4/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ETHYLBENZENE		0.26	U	
ISOPROPYLBENZENE		0.21	U	
METHYL ACETATE		1.4	U	
METHYL CYCLOHEXANE		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U	
METHYLENE CHLORIDE		0.53	U	
STYRENE		0.23	U	
TETRACHLOROETHENE		0.3	U	
TOLUENE		0.23	U	
TOTAL XYLENES		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U	
TRICHLOROETHENE		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U	
VINYL CHLORIDE		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW07A-040517			MRC-MW113A-032917			MRC-MW114A-032917			MRC-MW14A-033017		
SDG: 240-77416-1	LAB_ID	240-77761-7			240-77416-4			240-77416-3			240-77566-1		
FRACTION: OS	SAMP_DATE	4/5/2017			3/29/2017			3/29/2017			3/30/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		4.3			6.9			0.5			1.6		

PROJ_NO: 07776	NSAMPLE	MRC-MW14C-033017			MRC-MW17A-040517			MRC-MW19A-040317			MRC-MW21A-040317		
SDG: 240-77416-1	LAB_ID	240-77566-2			240-77761-6			240-77601-4			240-77601-1		
FRACTION: OS	SAMP_DATE	3/30/2017			4/5/2017			4/3/2017			4/3/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.057	U		2.6			6.9			0.43		

PROJ_NO: 07776	NSAMPLE	MRC-MW21B-040317			MRC-MW22A-040317			MRC-MW37A-032917			MRC-MW37B-032917		
SDG: 240-77416-1	LAB_ID	240-77601-2			240-77601-3			240-77416-1			240-77416-2		
FRACTION: OS	SAMP_DATE	4/3/2017			4/3/2017			3/29/2017			3/29/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		40			0.82			0.057	U		0.18	J	P

PROJ_NO: 07776	NSAMPLE	MRC-MW90B-040417			MRC-MW96A-040417			MRC-MW96B-040417		
SDG: 240-77416-1	LAB_ID	240-77761-3			240-77761-4			240-77761-5		
FRACTION: OS	SAMP_DATE	4/4/2017			4/4/2017			4/4/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		1.9			4			0.91		

PROJ_NO: 07776	NSAMPLE	MRC-MW21B-040317			MRC-MW37A-032917			MRC-MW37B-032917		
SDG: 240-77416-1	LAB_ID	240-77601-2			240-77416-1			240-77416-2		
FRACTION: OVG	SAMP_DATE	4/3/2017			3/29/2017			3/29/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHANE		0.14	U		0.14	U		0.14	U	
ETHENE		0.33	J	P	0.13	U		0.13	U	
METHANE		12			0.08	U		0.08	J	P

PROJ_NO: 07776	NSAMPLE	MRC-MW113A-032917			MRC-MW114A-032917			MRC-MW37A-032917			MRC-MW37B-032917		
SDG: 240-77416-1	LAB_ID	240-77416-4			240-77416-3			240-77416-1			240-77416-2		
FRACTION: PCB	SAMP_DATE	3/29/2017			3/29/2017			3/29/2017			3/29/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		0.073	UJ	D	0.067	UJ	D	0.07	UJ	D	0.071	UJ	D
DICHLOROBIPHENYLS		0.0056	UJ	D	0.0052	UJ	D	0.0054	UJ	D	0.0055	UJ	D
HEPTACHLOROBIPHENYLS		0.031	UJ	D	0.029	UJ	D	0.03	UJ	D	0.03	UJ	D
HEXACHLOROBIPHENYLS		0.016	UJ	D	0.014	UJ	D	0.015	UJ	D	0.015	UJ	D
MONOCHLOROBIPHENYLS		0.0058	U		0.01	J	P	0.0056	U		0.0057	U	
NONACHLOROBIPHENYLS		0.051	UJ	CD	0.047	UJ	CD	0.049	UJ	CD	0.049	UJ	CD
OCTACHLOROBIPHENYLS		0.039	UJ	D	0.036	UJ	D	0.038	UJ	D	0.038	UJ	D
PENTACHLOROBIPHENYLS		0.015	UJ	D	0.013	UJ	D	0.014	UJ	D	0.014	UJ	D
TETRACHLOROBIPHENYLS		0.014	UJ	D	0.012	UJ	D	0.013	UJ	D	0.013	UJ	D
TRICHLOROBIPHENYLS		0.0068	UJ	D	0.0062	UJ	D	0.0065	UJ	D	0.0066	UJ	D

PROJ_NO: 07776	NSAMPLE	MRC-DUP05-033017			MRC-MW106B/C-033017			MRC-MW107B/C-033017			MRC-MW14A-033017		
SDG: 240-77416-1	LAB_ID	240-77566-8			240-77566-3			240-77566-4			240-77566-1		
FRACTION: M	SAMP_DATE	3/30/2017			3/30/2017			3/30/2017			3/30/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW106B/C-033017											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.7	U	A	1.7	U	A	0.77	U	A	0.62	U	A
ARSENIC		1.5	J	P	1.5	J	P	0.8	J	P	0.94	J	P
BARIUM		140			140			220			80		
BERYLLIUM		0.4	U		0.4	U		0.4	U		0.4	U	
CADMIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CALCIUM													
CHROMIUM		0.37	J	P	0.45	J	P	3.4			0.26	U	
COBALT		27			26			19			13		
COPPER		0.44	U	A	0.52	U	A	4.2			0.74	U	A
IRON													
LEAD		0.34	U	A	0.38	U	A	2.8			0.21	U	A
MAGNESIUM													
MANGANESE													
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		0.68	U	A	0.66	U	A	0.88	U	A	0.51	U	
NICKEL		21			19			55			14		
POTASSIUM													
SELENIUM		0.48	U		0.48	U		0.9	U	A	3	U	A
SILICON DIOXIDE													
SILVER		0.03	U		0.038	U	A	0.051	U	A	0.03	U	
SODIUM													
THALLIUM		0.28	U		0.28	U		0.28	U		0.28	U	
VANADIUM		0.54	U		0.54	U		4.5	U	A	0.54	U	
ZINC		11	U	A	8.3	U	A	16000			6.2	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW14C-033017			MRC-MW21B-040317			MRC-MW37A-032917			MRC-MW37B-032917		
SDG: 240-77416-1	LAB_ID	240-77566-2			240-77601-2			240-77416-1			240-77416-2		
FRACTION: M	SAMP_DATE	3/30/2017			4/3/2017			3/29/2017			3/29/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.9	U	A				2.8					
ARSENIC		0.93	J	P				2.1	J	P			
BARIUM		77						40					
BERYLLIUM		0.4	U					0.4	U				
CADMIUM		0.31	U					0.33	U	A			
CALCIUM					8000			120000			7800		
CHROMIUM		2						1.8	U	A			
COBALT		8.6						2.1					
COPPER		1.4	U	A				2.4					
IRON					35000	J	DI	690	J	DI	330	J	DI
LEAD		0.91	U	A				1.1					
MAGNESIUM					7300			24000			3900	J	P
MANGANESE					3400			15			100		
MERCURY		0.13	U					0.13	U				
MOLYBDENUM		0.52	U	A				0.89	U	A			
NICKEL		14						2.3					
POTASSIUM					2800	J	IP	7300	J	I	2600	U	A
SELENIUM		0.64	U	A				5.6					
SILICON DIOXIDE					15000	J	I	3800	J	I	3600	J	I
SILVER		0.093	U	A				0.033	U	A			
SODIUM					16000			15000			14000		
THALLIUM		0.28	U					0.28	U				
VANADIUM		2.3	U	A				2	J	P			
ZINC		15	U	A				13	U	A			

PROJ_NO: 07776	NSAMPLE	MRC-MW21B-040317			MRC-MW37A-032917			MRC-MW37B-032917		
SDG: 240-77416-1	LAB_ID	240-77601-2			240-77416-1			240-77416-2		
FRACTION: MISC	SAMP_DATE	4/3/2017			3/29/2017			3/29/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY		34			84			6.4		
AMMONIA		0.87	U		0.87	U		0.87	U	
CHLORIDE		79			13			25		
DISSOLVED ORGANIC CARBON		0.42	U	A	3.3			0.86	J	P
NITRATE-N		0.035	U		2.5			1.2		
NITRITE-N		0.038	U		0.038	U		0.038	U	
ORTHOPHOSPHATE-P		0.023	J	P	0.014	J	P	0.047	J	P
SULFATE		2.7			360			26		
TOTAL DISSOLVED SOLIDS		190			640			110		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW37A-032917 | Lab Sample ID: 240-77416-1

Matrix: Water | Lab File ID: UX962966.D

Analysis Method: 8260C | Date Collected: 03/29/2017 08:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 13:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW37A-032917 | Lab Sample ID: 240-77416-1

Matrix: Water | Lab File ID: UX962966.D

Analysis Method: 8260C | Date Collected: 03/29/2017 08:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 13:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	4.5		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-124
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	84		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW37B-032917 | Lab Sample ID: 240-77416-2

Matrix: Water | Lab File ID: UX962967.D

Analysis Method: 8260C | Date Collected: 03/29/2017 10:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 14:09

Soil Aliquot Vol: | Dilution Factor: 1.25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.29	U	1.3	0.29
79-34-5	1,1,2,2-Tetrachloroethane	0.40	U	1.3	0.40
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.51	U	1.3	0.51
79-00-5	1,1,2-Trichloroethane	0.43	U	1.3	0.43
75-34-3	1,1-Dichloroethane	0.31	U	1.3	0.31
75-35-4	1,1-Dichloroethene	0.34	U	1.3	0.34
120-82-1	1,2,4-Trichlorobenzene	0.34	U	1.3	0.34
96-12-8	1,2-Dibromo-3-Chloropropane	0.59	U	2.5	0.59
106-93-4	Ethylene Dibromide	0.29	U	1.3	0.29
95-50-1	1,2-Dichlorobenzene	0.33	U	1.3	0.33
107-06-2	1,2-Dichloroethane	0.38	U	1.3	0.38
78-87-5	1,2-Dichloropropane	0.38	U	1.3	0.38
541-73-1	1,3-Dichlorobenzene	0.40	U	1.3	0.40
106-46-7	1,4-Dichlorobenzene	0.29	U	1.3	0.29
78-93-3	2-Butanone (MEK)	1.3	U	13	1.3
591-78-6	2-Hexanone	1.5	U	13	1.5
108-10-1	4-Methyl-2-pentanone (MIBK)	0.89	U	13	0.89
67-64-1	Acetone	2.2	U	13	2.2
71-43-2	Benzene	0.35	U	1.3	0.35
75-27-4	Dichlorobromomethane	0.38	U	1.3	0.38
75-25-2	Bromoform	0.54	U	1.3	0.54
74-83-9	Bromomethane	0.53	U	1.3	0.53
75-15-0	Carbon disulfide	0.43	U	1.3	0.43
56-23-5	Carbon tetrachloride	0.44	U	1.3	0.44
108-90-7	Chlorobenzene	0.40	U	1.3	0.40
75-00-3	Chloroethane	0.51	U	1.3	0.51
67-66-3	Chloroform	0.39	U	1.3	0.39
74-87-3	Chloromethane	0.54	U	1.3	0.54
156-59-2	cis-1,2-Dichloroethene	9.0		1.3	0.38
10061-01-5	cis-1,3-Dichloropropene	0.33	U	1.3	0.33
110-82-7	Cyclohexane	0.55	U	1.3	0.55
124-48-1	Chlorodibromomethane	0.31	U	1.3	0.31
75-71-8	Dichlorodifluoromethane	0.63	U	1.3	0.63
100-41-4	Ethylbenzene	0.33	U	1.3	0.33
98-82-8	Isopropylbenzene	0.26	U	1.3	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW37B-032917 | Lab Sample ID: 240-77416-2

Matrix: Water | Lab File ID: UX962967.D

Analysis Method: 8260C | Date Collected: 03/29/2017 10:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 14:09

Soil Aliquot Vol: | Dilution Factor: 1.25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.8	U	13	1.8
1634-04-4	Methyl tert-butyl ether	0.34	U	1.3	0.34
108-87-2	Methylcyclohexane	0.56	U	1.3	0.56
75-09-2	Methylene Chloride	2.3	B	1.3	0.66
100-42-5	Styrene	0.29	U	1.3	0.29
127-18-4	Tetrachloroethene	0.38	U	1.3	0.38
108-88-3	Toluene	0.29	U	1.3	0.29
156-60-5	trans-1,2-Dichloroethene	0.36	U	1.3	0.36
10061-02-6	trans-1,3-Dichloropropene	0.39	U	1.3	0.39
79-01-6	Trichloroethene	64		1.3	0.41
75-69-4	Trichlorofluoromethane	0.63	U	1.3	0.63
75-01-4	Vinyl chloride	0.56	U	1.3	0.56
1330-20-7	Xylenes, Total	0.30	U	2.5	0.30

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-124
1868-53-7	Dibromofluoromethane (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW114A-032917 | Lab Sample ID: 240-77416-3

Matrix: Water | Lab File ID: UX962968.D

Analysis Method: 8260C | Date Collected: 03/29/2017 11:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 14:33

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.3	U	10	2.3
79-34-5	1,1,2,2-Tetrachloroethane	3.2	U	10	3.2
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	4.1	U	10	4.1
79-00-5	1,1,2-Trichloroethane	3.4	U	10	3.4
75-34-3	1,1-Dichloroethane	2.5	U	10	2.5
75-35-4	1,1-Dichloroethene	2.7	U	10	2.7
120-82-1	1,2,4-Trichlorobenzene	320		10	2.7
96-12-8	1,2-Dibromo-3-Chloropropane	4.7	U	20	4.7
106-93-4	Ethylene Dibromide	2.3	U	10	2.3
95-50-1	1,2-Dichlorobenzene	18		10	2.6
107-06-2	1,2-Dichloroethane	400		10	3.0
78-87-5	1,2-Dichloropropane	4.2	J	10	3.0
541-73-1	1,3-Dichlorobenzene	7.2	J	10	3.2
106-46-7	1,4-Dichlorobenzene	51		10	2.3
78-93-3	2-Butanone (MEK)	10	U	100	10
591-78-6	2-Hexanone	12	U	100	12
108-10-1	4-Methyl-2-pentanone (MIBK)	7.1	U	100	7.1
67-64-1	Acetone	18	U	100	18
71-43-2	Benzene	2.8	U	10	2.8
75-27-4	Dichlorobromomethane	3.0	U	10	3.0
75-25-2	Bromoform	4.3	U	10	4.3
74-83-9	Bromomethane	4.2	U	10	4.2
75-15-0	Carbon disulfide	3.4	U	10	3.4
56-23-5	Carbon tetrachloride	3.5	U	10	3.5
108-90-7	Chlorobenzene	120		10	3.2
75-00-3	Chloroethane	4.1	U	10	4.1
67-66-3	Chloroform	3.1	U	10	3.1
74-87-3	Chloromethane	4.3	U	10	4.3
156-59-2	cis-1,2-Dichloroethene	3.0	U	10	3.0
10061-01-5	cis-1,3-Dichloropropene	2.6	U	10	2.6
110-82-7	Cyclohexane	4.4	U	10	4.4
124-48-1	Chlorodibromomethane	2.5	U	10	2.5
75-71-8	Dichlorodifluoromethane	5.0	U	10	5.0
100-41-4	Ethylbenzene	2.6	U	10	2.6
98-82-8	Isopropylbenzene	2.1	U	10	2.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW114A-032917 | Lab Sample ID: 240-77416-3

Matrix: Water | Lab File ID: UX962968.D

Analysis Method: 8260C | Date Collected: 03/29/2017 11:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 14:33

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	14	U	100	14
1634-04-4	Methyl tert-butyl ether	2.7	U	10	2.7
108-87-2	Methylcyclohexane	4.5	U	10	4.5
75-09-2	Methylene Chloride	26	B	10	5.3
100-42-5	Styrene	2.3	U	10	2.3
127-18-4	Tetrachloroethene	3.0	U	10	3.0
108-88-3	Toluene	2.3	U	10	2.3
156-60-5	trans-1,2-Dichloroethene	2.9	U	10	2.9
10061-02-6	trans-1,3-Dichloropropene	3.1	U	10	3.1
79-01-6	Trichloroethene	6.1	J	10	3.3
75-69-4	Trichlorofluoromethane	180		10	5.0
75-01-4	Vinyl chloride	4.5	U	10	4.5
1330-20-7	Xylenes, Total	2.4	U	20	2.4
108-70-3	1,3,5-Trichlorobenzene	3.3	U	10	3.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-124
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW114A-032917 | Lab Sample ID: 240-77416-3

Matrix: Water | Lab File ID: UXM1633.D

Analysis Method: 8260C | Date Collected: 03/29/2017 11:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 14:43

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274011 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
87-61-6	1,2,3-Trichlorobenzene	92		10	3.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-124
1868-53-7	Dibromofluoromethane (Surr)	90		80-120
460-00-4	4-Bromofluorobenzene (Surr)	103		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW113A-032917 | Lab Sample ID: 240-77416-4

Matrix: Water | Lab File ID: UX962969.D

Analysis Method: 8260C | Date Collected: 03/29/2017 12:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 14:57

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	4.6	U	20	4.6
79-34-5	1,1,2,2-Tetrachloroethane	6.4	U	20	6.4
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	8.2	U	20	8.2
79-00-5	1,1,2-Trichloroethane	6.8	U	20	6.8
75-34-3	1,1-Dichloroethane	5.0	U	20	5.0
75-35-4	1,1-Dichloroethene	5.4	U	20	5.4
120-82-1	1,2,4-Trichlorobenzene	230		20	5.4
96-12-8	1,2-Dibromo-3-Chloropropane	9.4	U	40	9.4
106-93-4	Ethylene Dibromide	4.6	U	20	4.6
95-50-1	1,2-Dichlorobenzene	17	J	20	5.2
107-06-2	1,2-Dichloroethane	6.0	U	20	6.0
78-87-5	1,2-Dichloropropane	6.0	U	20	6.0
541-73-1	1,3-Dichlorobenzene	32		20	6.4
106-46-7	1,4-Dichlorobenzene	50		20	4.6
78-93-3	2-Butanone (MEK)	20	U	200	20
591-78-6	2-Hexanone	25	U	200	25
108-10-1	4-Methyl-2-pentanone (MIBK)	14	U	200	14
67-64-1	Acetone	35	U	200	35
71-43-2	Benzene	5.6	U	20	5.6
75-27-4	Dichlorobromomethane	6.0	U	20	6.0
75-25-2	Bromoform	8.6	U	20	8.6
74-83-9	Bromomethane	8.4	U	20	8.4
75-15-0	Carbon disulfide	6.8	U	20	6.8
56-23-5	Carbon tetrachloride	7.0	U	20	7.0
108-90-7	Chlorobenzene	54		20	6.4
75-00-3	Chloroethane	8.2	U	20	8.2
67-66-3	Chloroform	6.2	U	20	6.2
74-87-3	Chloromethane	8.6	U	20	8.6
156-59-2	cis-1,2-Dichloroethene	6.0	U	20	6.0
10061-01-5	cis-1,3-Dichloropropene	5.2	U	20	5.2
110-82-7	Cyclohexane	8.8	U	20	8.8
124-48-1	Chlorodibromomethane	5.0	U	20	5.0
75-71-8	Dichlorodifluoromethane	10	U	20	10
100-41-4	Ethylbenzene	5.2	U	20	5.2
98-82-8	Isopropylbenzene	4.2	U	20	4.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW113A-032917 | Lab Sample ID: 240-77416-4

Matrix: Water | Lab File ID: UX962969.D

Analysis Method: 8260C | Date Collected: 03/29/2017 12:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 14:57

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	29	U	200	29
1634-04-4	Methyl tert-butyl ether	5.4	U	20	5.4
108-87-2	Methylcyclohexane	9.0	U	20	9.0
75-09-2	Methylene Chloride	53	B	20	11
100-42-5	Styrene	4.6	U	20	4.6
127-18-4	Tetrachloroethene	52		20	6.0
108-88-3	Toluene	4.6	U	20	4.6
156-60-5	trans-1,2-Dichloroethene	5.8	U	20	5.8
10061-02-6	trans-1,3-Dichloropropene	6.2	U	20	6.2
79-01-6	Trichloroethene	25		20	6.6
75-69-4	Trichlorofluoromethane	810		20	10
75-01-4	Vinyl chloride	9.0	U	20	9.0
1330-20-7	Xylenes, Total	4.8	U	40	4.8
108-70-3	1,3,5-Trichlorobenzene	6.6	U	20	6.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW113A-032917 | Lab Sample ID: 240-77416-4

Matrix: Water | Lab File ID: UXM1634.D

Analysis Method: 8260C | Date Collected: 03/29/2017 12:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 15:06

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274011 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
87-61-6	1,2,3-Trichlorobenzene	62		20	7.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	90		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: TB-032917 | Lab Sample ID: 240-77416-5

Matrix: Water | Lab File ID: UXJ1127.D

Analysis Method: 8260C | Date Collected: 03/29/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 12:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: TB-032917 | Lab Sample ID: 240-77416-5

Matrix: Water | Lab File ID: UXJ1127.D

Analysis Method: 8260C | Date Collected: 03/29/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 12:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		73-124
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	102		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW102B-032917 | Lab Sample ID: 240-77416-6

Matrix: Water | Lab File ID: UX962970.D

Analysis Method: 8260C | Date Collected: 03/29/2017 13:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 15:20

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.9	U	13	2.9
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	13	4.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.1	U	13	5.1
79-00-5	1,1,2-Trichloroethane	4.3	U	13	4.3
75-34-3	1,1-Dichloroethane	3.1	U	13	3.1
75-35-4	1,1-Dichloroethene	3.4	U	13	3.4
120-82-1	1,2,4-Trichlorobenzene	4.4	J	13	3.4
96-12-8	1,2-Dibromo-3-Chloropropane	5.9	U	25	5.9
106-93-4	Ethylene Dibromide	2.9	U	13	2.9
95-50-1	1,2-Dichlorobenzene	3.3	U	13	3.3
107-06-2	1,2-Dichloroethane	3.8	U	13	3.8
78-87-5	1,2-Dichloropropane	3.8	U	13	3.8
541-73-1	1,3-Dichlorobenzene	4.0	U	13	4.0
106-46-7	1,4-Dichlorobenzene	2.9	U	13	2.9
78-93-3	2-Butanone (MEK)	13	U	130	13
591-78-6	2-Hexanone	15	U	130	15
108-10-1	4-Methyl-2-pentanone (MIBK)	8.9	U	130	8.9
67-64-1	Acetone	22	U	130	22
71-43-2	Benzene	3.5	U	13	3.5
75-27-4	Dichlorobromomethane	3.8	U	13	3.8
75-25-2	Bromoform	5.4	U	13	5.4
74-83-9	Bromomethane	5.3	U	13	5.3
75-15-0	Carbon disulfide	4.3	U	13	4.3
56-23-5	Carbon tetrachloride	4.4	U	13	4.4
108-90-7	Chlorobenzene	4.0	U	13	4.0
75-00-3	Chloroethane	5.1	U	13	5.1
67-66-3	Chloroform	3.9	U	13	3.9
74-87-3	Chloromethane	5.4	U	13	5.4
156-59-2	cis-1,2-Dichloroethene	520		13	3.8
10061-01-5	cis-1,3-Dichloropropene	3.3	U	13	3.3
110-82-7	Cyclohexane	5.5	U	13	5.5
124-48-1	Chlorodibromomethane	3.1	U	13	3.1
75-71-8	Dichlorodifluoromethane	6.3	U	13	6.3
100-41-4	Ethylbenzene	3.3	U	13	3.3
98-82-8	Isopropylbenzene	2.6	U	13	2.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW102B-032917 | Lab Sample ID: 240-77416-6

Matrix: Water | Lab File ID: UX962970.D

Analysis Method: 8260C | Date Collected: 03/29/2017 13:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 15:20

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	18	U	130	18
1634-04-4	Methyl tert-butyl ether	3.4	U	13	3.4
108-87-2	Methylcyclohexane	5.6	U	13	5.6
75-09-2	Methylene Chloride	33	B	13	6.6
100-42-5	Styrene	2.9	U	13	2.9
127-18-4	Tetrachloroethene	3.8	U	13	3.8
108-88-3	Toluene	2.9	U	13	2.9
156-60-5	trans-1,2-Dichloroethene	4.0	J	13	3.6
10061-02-6	trans-1,3-Dichloropropene	3.9	U	13	3.9
79-01-6	Trichloroethene	150		13	4.1
75-69-4	Trichlorofluoromethane	6.3	U	13	6.3
75-01-4	Vinyl chloride	5.6	U	13	5.6
1330-20-7	Xylenes, Total	3.0	U	25	3.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-124
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	89		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW14A-033017 | Lab Sample ID: 240-77566-1

Matrix: Water | Lab File ID: U1256407.D

Analysis Method: 8260C | Date Collected: 03/30/2017 08:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 19:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.54	J	1.0	0.25
75-35-4	1,1-Dichloroethene	0.43	J	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	5.2		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW14A-033017 | Lab Sample ID: 240-77566-1

Matrix: Water | Lab File ID: U1256407.D

Analysis Method: 8260C | Date Collected: 03/30/2017 08:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 19:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.89	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	1.1		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-124
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW14C-033017 | Lab Sample ID: 240-77566-2

Matrix: Water | Lab File ID: U1256408.D

Analysis Method: 8260C | Date Collected: 03/30/2017 10:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 20:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW14C-033017 | Lab Sample ID: 240-77566-2

Matrix: Water | Lab File ID: U1256408.D

Analysis Method: 8260C | Date Collected: 03/30/2017 10:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 20:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-124
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW106B/C-033017 | Lab Sample ID: 240-77566-3

Matrix: Water | Lab File ID: U1256409A.D

Analysis Method: 8260C | Date Collected: 03/30/2017 11:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 20:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.58	J	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.34	J	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW106B/C-033017 | Lab Sample ID: 240-77566-3

Matrix: Water | Lab File ID: U1256409A.D

Analysis Method: 8260C | Date Collected: 03/30/2017 11:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 20:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.37	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	5.3		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-124
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW107B/C-033017 | Lab Sample ID: 240-77566-4

Matrix: Water | Lab File ID: U1256410.D

Analysis Method: 8260C | Date Collected: 03/30/2017 12:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 21:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW107B/C-033017 | Lab Sample ID: 240-77566-4

Matrix: Water | Lab File ID: U1256410.D

Analysis Method: 8260C | Date Collected: 03/30/2017 12:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 21:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-124
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: TB-033117 | Lab Sample ID: 240-77566-5

Matrix: Water | Lab File ID: U1256411.D

Analysis Method: 8260C | Date Collected: 03/31/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 21:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: TB-033117 | Lab Sample ID: 240-77566-5

Matrix: Water | Lab File ID: U1256411.D

Analysis Method: 8260C | Date Collected: 03/31/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 21:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-124
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW38A-033117 | Lab Sample ID: 240-77566-6

Matrix: Water | Lab File ID: U1256412.D

Analysis Method: 8260C | Date Collected: 03/31/2017 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 21:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	5.9		1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW38A-033117 | Lab Sample ID: 240-77566-6

Matrix: Water | Lab File ID: U1256412.D

Analysis Method: 8260C | Date Collected: 03/31/2017 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 21:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-124
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW38B-033117 | Lab Sample ID: 240-77566-7

Matrix: Water | Lab File ID: U1256413.D

Analysis Method: 8260C | Date Collected: 03/31/2017 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 22:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW38B-033117 | Lab Sample ID: 240-77566-7

Matrix: Water | Lab File ID: U1256413.D

Analysis Method: 8260C | Date Collected: 03/31/2017 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 22:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-124
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-DUP05-033017 | Lab Sample ID: 240-77566-8

Matrix: Water | Lab File ID: U1256414.D

Analysis Method: 8260C | Date Collected: 03/30/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 22:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.54	J	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.5	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.31	J	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-DUP05-033017 | Lab Sample ID: 240-77566-8

Matrix: Water | Lab File ID: U1256414.D

Analysis Method: 8260C | Date Collected: 03/30/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 22:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	5.2		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-124
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW21A-040317 | Lab Sample ID: 240-77601-1

Matrix: Water | Lab File ID: U1256417A.D

Analysis Method: 8260C | Date Collected: 04/03/2017 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 23:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	1.2		1.0	0.25
75-35-4	1,1-Dichloroethene	0.50	J	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.6	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW21A-040317 | Lab Sample ID: 240-77601-1

Matrix: Water | Lab File ID: U1256417A.D

Analysis Method: 8260C | Date Collected: 04/03/2017 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 23:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.76	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-124
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW21B-040317 | Lab Sample ID: 240-77601-2

Matrix: Water | Lab File ID: U1256403.D

Analysis Method: 8260C | Date Collected: 04/03/2017 10:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 18:18

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.9	U	13	2.9
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	13	4.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.1	U	13	5.1
79-00-5	1,1,2-Trichloroethane	4.3	U	13	4.3
75-34-3	1,1-Dichloroethane	17		13	3.1
75-35-4	1,1-Dichloroethene	160		13	3.4
120-82-1	1,2,4-Trichlorobenzene	3.4	U	13	3.4
96-12-8	1,2-Dibromo-3-Chloropropane	5.9	U	25	5.9
106-93-4	Ethylene Dibromide	2.9	U	13	2.9
95-50-1	1,2-Dichlorobenzene	3.3	U	13	3.3
107-06-2	1,2-Dichloroethane	3.8	U	13	3.8
78-87-5	1,2-Dichloropropane	3.8	U	13	3.8
541-73-1	1,3-Dichlorobenzene	4.0	U	13	4.0
106-46-7	1,4-Dichlorobenzene	2.9	U	13	2.9
78-93-3	2-Butanone (MEK)	13	U	130	13
591-78-6	2-Hexanone	15	U	130	15
108-10-1	4-Methyl-2-pentanone (MIBK)	8.9	U	130	8.9
67-64-1	Acetone	22	U	130	22
71-43-2	Benzene	21		13	3.5
75-27-4	Dichlorobromomethane	3.8	U	13	3.8
75-25-2	Bromoform	5.4	U	13	5.4
74-83-9	Bromomethane	5.3	U	13	5.3
75-15-0	Carbon disulfide	4.3	U	13	4.3
56-23-5	Carbon tetrachloride	4.4	U	13	4.4
108-90-7	Chlorobenzene	4.0	U	13	4.0
75-00-3	Chloroethane	5.1	U	13	5.1
67-66-3	Chloroform	3.9	U	13	3.9
74-87-3	Chloromethane	5.4	U	13	5.4
156-59-2	cis-1,2-Dichloroethene	6.1	J	13	3.8
10061-01-5	cis-1,3-Dichloropropene	3.3	U	13	3.3
110-82-7	Cyclohexane	5.5	U	13	5.5
124-48-1	Chlorodibromomethane	3.1	U	13	3.1
75-71-8	Dichlorodifluoromethane	6.3	U	13	6.3
100-41-4	Ethylbenzene	3.3	U	13	3.3
98-82-8	Isopropylbenzene	12	J	13	2.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW21B-040317 | Lab Sample ID: 240-77601-2

Matrix: Water | Lab File ID: U1256403.D

Analysis Method: 8260C | Date Collected: 04/03/2017 10:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 18:18

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	18	U	130	18
1634-04-4	Methyl tert-butyl ether	3.4	U	13	3.4
108-87-2	Methylcyclohexane	5.6	U	13	5.6
75-09-2	Methylene Chloride	6.6	U	13	6.6
100-42-5	Styrene	2.9	U	13	2.9
127-18-4	Tetrachloroethene	8.5	J	13	3.8
108-88-3	Toluene	2.9	U	13	2.9
156-60-5	trans-1,2-Dichloroethene	3.6	U	13	3.6
10061-02-6	trans-1,3-Dichloropropene	3.9	U	13	3.9
79-01-6	Trichloroethene	570		13	4.1
75-69-4	Trichlorofluoromethane	6.3	U	13	6.3
75-01-4	Vinyl chloride	5.6	U	13	5.6
1330-20-7	Xylenes, Total	3.0	U	25	3.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-124
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW22A-040317 | Lab Sample ID: 240-77601-3

Matrix: Water | Lab File ID: U1256404.D

Analysis Method: 8260C | Date Collected: 04/03/2017 12:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 18:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW22A-040317 | Lab Sample ID: 240-77601-3

Matrix: Water | Lab File ID: U1256404.D

Analysis Method: 8260C | Date Collected: 04/03/2017 12:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 18:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.94	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-124
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW19A-040317 | Lab Sample ID: 240-77601-4

Matrix: Water | Lab File ID: U1256405.D

Analysis Method: 8260C | Date Collected: 04/03/2017 13:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 19:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	2.5		1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.60	J	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW19A-040317 | Lab Sample ID: 240-77601-4

Matrix: Water | Lab File ID: U1256405.D

Analysis Method: 8260C | Date Collected: 04/03/2017 13:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 19:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	1.2		1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-124
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: TB-040317 | Lab Sample ID: 240-77601-5

Matrix: Water | Lab File ID: U1256406.D

Analysis Method: 8260C | Date Collected: 04/03/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 19:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: TB-040317 | Lab Sample ID: 240-77601-5

Matrix: Water | Lab File ID: U1256406.D

Analysis Method: 8260C | Date Collected: 04/03/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 19:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-124
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: TB-040418 | Lab Sample ID: 240-77761-1

Matrix: Water | Lab File ID: UX963008.D

Analysis Method: 8260C | Date Collected: 04/04/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 15:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: TB-040418 | Lab Sample ID: 240-77761-1

Matrix: Water | Lab File ID: UX963008.D

Analysis Method: 8260C | Date Collected: 04/04/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 15:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	85		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW50A-040417 | Lab Sample ID: 240-77761-2

Matrix: Water | Lab File ID: UX963009.D

Analysis Method: 8260C | Date Collected: 04/04/2017 11:18

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 15:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW50A-040417 | Lab Sample ID: 240-77761-2

Matrix: Water | Lab File ID: UX963009.D

Analysis Method: 8260C | Date Collected: 04/04/2017 11:18

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 15:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	7.6		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	89		73-124
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	87		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW90B-040417 | Lab Sample ID: 240-77761-3

Matrix: Water | Lab File ID: UX963010.D

Analysis Method: 8260C | Date Collected: 04/04/2017 12:23

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 16:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	3.0		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.9	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.87	J	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW90B-040417 | Lab Sample ID: 240-77761-3

Matrix: Water | Lab File ID: UX963010.D

Analysis Method: 8260C | Date Collected: 04/04/2017 12:23

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 16:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	28		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-124
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW96A-040417 | Lab Sample ID: 240-77761-4

Matrix: Water | Lab File ID: UX963011.D

Analysis Method: 8260C | Date Collected: 04/04/2017 14:44

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 16:30

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	120	U	500	120
79-34-5	1,1,2,2-Tetrachloroethane	160	U	500	160
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	210	U	500	210
79-00-5	1,1,2-Trichloroethane	170	U	500	170
75-34-3	1,1-Dichloroethane	130	U	500	130
75-35-4	1,1-Dichloroethene	140	U	500	140
120-82-1	1,2,4-Trichlorobenzene	140	U	500	140
96-12-8	1,2-Dibromo-3-Chloropropane	240	U	1000	240
106-93-4	Ethylene Dibromide	120	U	500	120
95-50-1	1,2-Dichlorobenzene	130	U	500	130
107-06-2	1,2-Dichloroethane	150	U	500	150
78-87-5	1,2-Dichloropropane	150	U	500	150
541-73-1	1,3-Dichlorobenzene	160	U	500	160
106-46-7	1,4-Dichlorobenzene	120	U	500	120
78-93-3	2-Butanone (MEK)	510	U	5000	510
591-78-6	2-Hexanone	620	U	5000	620
108-10-1	4-Methyl-2-pentanone (MIBK)	360	U	5000	360
67-64-1	Acetone	880	U	5000	880
71-43-2	Benzene	140	U	500	140
75-27-4	Dichlorobromomethane	150	U	500	150
75-25-2	Bromoform	220	U	500	220
74-83-9	Bromomethane	210	U	500	210
75-15-0	Carbon disulfide	170	U	500	170
56-23-5	Carbon tetrachloride	180	U	500	180
108-90-7	Chlorobenzene	160	U	500	160
75-00-3	Chloroethane	210	U	500	210
67-66-3	Chloroform	160	U	500	160
74-87-3	Chloromethane	220	U	500	220
156-59-2	cis-1,2-Dichloroethene	29000		500	150
10061-01-5	cis-1,3-Dichloropropene	130	U	500	130
110-82-7	Cyclohexane	220	U	500	220
124-48-1	Chlorodibromomethane	130	U	500	130
75-71-8	Dichlorodifluoromethane	250	U	500	250
100-41-4	Ethylbenzene	130	U	500	130
98-82-8	Isopropylbenzene	110	U	500	110

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW96A-040417 | Lab Sample ID: 240-77761-4

Matrix: Water | Lab File ID: UX963011.D

Analysis Method: 8260C | Date Collected: 04/04/2017 14:44

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 16:30

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	720	U	5000	720
1634-04-4	Methyl tert-butyl ether	140	U	500	140
108-87-2	Methylcyclohexane	230	U	500	230
75-09-2	Methylene Chloride	720	B	500	270
100-42-5	Styrene	120	U	500	120
127-18-4	Tetrachloroethene	150	U	500	150
108-88-3	Toluene	120	U	500	120
156-60-5	trans-1,2-Dichloroethene	150	U	500	150
10061-02-6	trans-1,3-Dichloropropene	160	U	500	160
79-01-6	Trichloroethene	3300		500	170
75-69-4	Trichlorofluoromethane	250	U	500	250
75-01-4	Vinyl chloride	230	U	500	230
1330-20-7	Xylenes, Total	120	U	1000	120

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	89		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	86		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW96B-040417 | Lab Sample ID: 240-77761-5

Matrix: Water | Lab File ID: UX963012.D

Analysis Method: 8260C | Date Collected: 04/04/2017 15:52

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 16:54

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.9	U	13	2.9
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	13	4.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.1	U	13	5.1
79-00-5	1,1,2-Trichloroethane	4.3	U	13	4.3
75-34-3	1,1-Dichloroethane	3.1	U	13	3.1
75-35-4	1,1-Dichloroethene	3.4	U	13	3.4
120-82-1	1,2,4-Trichlorobenzene	3.4	U	13	3.4
96-12-8	1,2-Dibromo-3-Chloropropane	5.9	U	25	5.9
106-93-4	Ethylene Dibromide	2.9	U	13	2.9
95-50-1	1,2-Dichlorobenzene	3.3	U	13	3.3
107-06-2	1,2-Dichloroethane	3.8	U	13	3.8
78-87-5	1,2-Dichloropropane	3.8	U	13	3.8
541-73-1	1,3-Dichlorobenzene	4.0	U	13	4.0
106-46-7	1,4-Dichlorobenzene	2.9	U	13	2.9
78-93-3	2-Butanone (MEK)	13	U	130	13
591-78-6	2-Hexanone	15	U	130	15
108-10-1	4-Methyl-2-pentanone (MIBK)	8.9	U	130	8.9
67-64-1	Acetone	22	U	130	22
71-43-2	Benzene	720		13	3.5
75-27-4	Dichlorobromomethane	3.8	U	13	3.8
75-25-2	Bromoform	5.4	U	13	5.4
74-83-9	Bromomethane	5.3	U	13	5.3
75-15-0	Carbon disulfide	4.3	U	13	4.3
56-23-5	Carbon tetrachloride	4.4	U	13	4.4
108-90-7	Chlorobenzene	4.0	U	13	4.0
75-00-3	Chloroethane	5.1	U	13	5.1
67-66-3	Chloroform	3.9	U	13	3.9
74-87-3	Chloromethane	5.4	U	13	5.4
156-59-2	cis-1,2-Dichloroethene	11	J	13	3.8
10061-01-5	cis-1,3-Dichloropropene	3.3	U	13	3.3
110-82-7	Cyclohexane	11	J	13	5.5
124-48-1	Chlorodibromomethane	3.1	U	13	3.1
75-71-8	Dichlorodifluoromethane	6.3	U	13	6.3
100-41-4	Ethylbenzene	6.2	J	13	3.3
98-82-8	Isopropylbenzene	10	J	13	2.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW96B-040417 | Lab Sample ID: 240-77761-5

Matrix: Water | Lab File ID: UX963012.D

Analysis Method: 8260C | Date Collected: 04/04/2017 15:52

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 16:54

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	18	U	130	18
1634-04-4	Methyl tert-butyl ether	34		13	3.4
108-87-2	Methylcyclohexane	5.6	U	13	5.6
75-09-2	Methylene Chloride	15	B	13	6.6
100-42-5	Styrene	2.9	U	13	2.9
127-18-4	Tetrachloroethene	3.8	U	13	3.8
108-88-3	Toluene	2.9	U	13	2.9
156-60-5	trans-1,2-Dichloroethene	3.6	U	13	3.6
10061-02-6	trans-1,3-Dichloropropene	3.9	U	13	3.9
79-01-6	Trichloroethene	12	J	13	4.1
75-69-4	Trichlorofluoromethane	6.3	U	13	6.3
75-01-4	Vinyl chloride	5.6	U	13	5.6
1330-20-7	Xylenes, Total	110		25	3.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	89		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW17A-040517 | Lab Sample ID: 240-77761-6

Matrix: Water | Lab File ID: UX963013.D

Analysis Method: 8260C | Date Collected: 04/05/2017 11:06

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 17:16

Soil Aliquot Vol: | Dilution Factor: 1.25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
108-87-2	Methylcyclohexane	13		1.3	0.56

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW17A-040517 | Lab Sample ID: 240-77761-6

Matrix: Water | Lab File ID: UX963048.D

Analysis Method: 8260C | Date Collected: 04/05/2017 11:06

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 12:10

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.92	U	4.0	0.92
79-34-5	1,1,2,2-Tetrachloroethane	1.3	U	4.0	1.3
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	U	4.0	1.6
79-00-5	1,1,2-Trichloroethane	1.4	U	4.0	1.4
75-34-3	1,1-Dichloroethane	1.0	U	4.0	1.0
75-35-4	1,1-Dichloroethene	1.1	U	4.0	1.1
120-82-1	1,2,4-Trichlorobenzene	1.1	U	4.0	1.1
96-12-8	1,2-Dibromo-3-Chloropropane	1.9	U	8.0	1.9
106-93-4	Ethylene Dibromide	0.92	U	4.0	0.92
95-50-1	1,2-Dichlorobenzene	1.0	U	4.0	1.0
107-06-2	1,2-Dichloroethane	1.2	U	4.0	1.2
78-87-5	1,2-Dichloropropane	1.2	U	4.0	1.2
541-73-1	1,3-Dichlorobenzene	1.3	U	4.0	1.3
106-46-7	1,4-Dichlorobenzene	0.92	U	4.0	0.92
78-93-3	2-Butanone (MEK)	4.1	U	40	4.1
591-78-6	2-Hexanone	4.9	U	40	4.9
108-10-1	4-Methyl-2-pentanone (MIBK)	2.8	U	40	2.8
67-64-1	Acetone	7.0	U	40	7.0
71-43-2	Benzene	110		4.0	1.1
75-27-4	Dichlorobromomethane	1.2	U	4.0	1.2
75-25-2	Bromoform	1.7	U	4.0	1.7
74-83-9	Bromomethane	1.7	U	4.0	1.7
75-15-0	Carbon disulfide	1.4	U	4.0	1.4
56-23-5	Carbon tetrachloride	1.4	U	4.0	1.4
108-90-7	Chlorobenzene	1.3	U	4.0	1.3
75-00-3	Chloroethane	1.6	U	4.0	1.6
67-66-3	Chloroform	1.2	U	4.0	1.2
74-87-3	Chloromethane	1.7	U	4.0	1.7
156-59-2	cis-1,2-Dichloroethene	1.2	U	4.0	1.2
10061-01-5	cis-1,3-Dichloropropene	1.0	U	4.0	1.0
110-82-7	Cyclohexane	32		4.0	1.8
124-48-1	Chlorodibromomethane	1.0	U	4.0	1.0
75-71-8	Dichlorodifluoromethane	2.0	U	4.0	2.0
100-41-4	Ethylbenzene	44		4.0	1.0
98-82-8	Isopropylbenzene	3.2	J	4.0	0.84

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW17A-040517 | Lab Sample ID: 240-77761-6

Matrix: Water | Lab File ID: UX963048.D

Analysis Method: 8260C | Date Collected: 04/05/2017 11:06

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 12:10

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	5.7	U	40	5.7
1634-04-4	Methyl tert-butyl ether	1.1	U	4.0	1.1
75-09-2	Methylene Chloride	2.1	U	4.0	2.1
100-42-5	Styrene	0.92	U	4.0	0.92
127-18-4	Tetrachloroethene	1.2	U	4.0	1.2
108-88-3	Toluene	7.9		4.0	0.92
156-60-5	trans-1,2-Dichloroethene	1.2	U	4.0	1.2
10061-02-6	trans-1,3-Dichloropropene	1.2	U	4.0	1.2
79-01-6	Trichloroethene	7.5		4.0	1.3
75-69-4	Trichlorofluoromethane	2.0	U	4.0	2.0
75-01-4	Vinyl chloride	1.8	U	4.0	1.8
1330-20-7	Xylenes, Total	13		8.0	0.96

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-124
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-132

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW37A-032917 | Lab Sample ID: 240-77416-1

Matrix: Water | Lab File ID: Z24775_43.D

Analysis Method: 522 | Date Collected: 03/29/2017 08:20

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/18/2017 21:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	67		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW37B-032917 | Lab Sample ID: 240-77416-2

Matrix: Water | Lab File ID: Z24775_44.D

Analysis Method: 522 | Date Collected: 03/29/2017 10:05

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/18/2017 21:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.18	J	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	67		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW114A-032917 | Lab Sample ID: 240-77416-3

Matrix: Water | Lab File ID: Z24775_45.D

Analysis Method: 522 | Date Collected: 03/29/2017 11:50

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/18/2017 21:51

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.50		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	49		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW113A-032917 | Lab Sample ID: 240-77416-4

Matrix: Water | Lab File ID: Z24775_46.D

Analysis Method: 522 | Date Collected: 03/29/2017 12:55

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/18/2017 22:07

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	6.9		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	81		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW14A-033017 | Lab Sample ID: 240-77566-1

Matrix: Water | Lab File ID: Z24775_47.D

Analysis Method: 522 | Date Collected: 03/30/2017 08:20

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/18/2017 22:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.6		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	77		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW14C-033017 | Lab Sample ID: 240-77566-2

Matrix: Water | Lab File ID: Z24775_48.D

Analysis Method: 522 | Date Collected: 03/30/2017 10:05

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/18/2017 22:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	61		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW21A-040317 | Lab Sample ID: 240-77601-1

Matrix: Water | Lab File ID: Z24775_49.D

Analysis Method: 522 | Date Collected: 04/03/2017 09:05

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/18/2017 22:58

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.43		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	65		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW21B-040317 | Lab Sample ID: 240-77601-2

Matrix: Water | Lab File ID: Z24791_09.D

Analysis Method: 522 | Date Collected: 04/03/2017 10:25

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/19/2017 12:03

Con. Extract Vol.: 2(mL) | Dilution Factor: 5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115937 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	40		1.0	0.29

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	56		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW22A-040317 | Lab Sample ID: 240-77601-3

Matrix: Water | Lab File ID: Z24775_51.D

Analysis Method: 522 | Date Collected: 04/03/2017 12:05

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/18/2017 23:32

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.82		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	64		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW19A-040317 | Lab Sample ID: 240-77601-4

Matrix: Water | Lab File ID: Z24775_52.D

Analysis Method: 522 | Date Collected: 04/03/2017 13:35

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/18/2017 23:48

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	6.9		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	68		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW90B-040417 | Lab Sample ID: 240-77761-3

Matrix: Water | Lab File ID: Z24775_54.D

Analysis Method: 522 | Date Collected: 04/04/2017 12:23

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/19/2017 00:22

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.9		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	96		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW96A-040417 | Lab Sample ID: 240-77761-4

Matrix: Water | Lab File ID: Z24775_55.D

Analysis Method: 522 | Date Collected: 04/04/2017 14:44

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/19/2017 00:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	4.0		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	60		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW96B-040417 | Lab Sample ID: 240-77761-5

Matrix: Water | Lab File ID: Z24775_56.D

Analysis Method: 522 | Date Collected: 04/04/2017 15:52

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/19/2017 00:56

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.91		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	78		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW17A-040517 | Lab Sample ID: 240-77761-6

Matrix: Water | Lab File ID: Z24775_57.D

Analysis Method: 522 | Date Collected: 04/05/2017 11:06

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/19/2017 01:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.6		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	63		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW07A-040517 | Lab Sample ID: 240-77761-7

Matrix: Water | Lab File ID: Z24775_58.D

Analysis Method: 522 | Date Collected: 04/05/2017 15:11

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/19/2017 01:29

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	4.3		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	85		46-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW37A-032917 Lab Sample ID: 240-77416-1

Matrix: Water Lab File ID: RSK0411023.D

Analysis Method: RSK-175 Date Collected: 03/29/2017 08:20

Sample wt/vol: 33(mL) Date Analyzed: 04/11/2017 17:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 274140 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-85-1	Ethene	0.13	U	0.50	0.13
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	0.080	U	0.50	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	85		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW37B-032917 Lab Sample ID: 240-77416-2

Matrix: Water Lab File ID: RSK0411024.D

Analysis Method: RSK-175 Date Collected: 03/29/2017 10:05

Sample wt/vol: 33(mL) Date Analyzed: 04/11/2017 18:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 274140 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-85-1	Ethene	0.13	U	0.50	0.13
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	0.080	J	0.50	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	83		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW21B-040317 Lab Sample ID: 240-77601-2

Matrix: Water Lab File ID: RSK0412007.D

Analysis Method: RSK-175 Date Collected: 04/03/2017 10:25

Sample wt/vol: 33(mL) Date Analyzed: 04/12/2017 14:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 274378 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-85-1	Ethene	0.33	J	0.50	0.13
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	12		0.50	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	92		76-121

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW37A-032917 | Lab Sample ID: 240-77416-1

Matrix: Water | Lab File ID: xd1420.D

Analysis Method: 680 | Date Collected: 03/29/2017 08:20

Extract. Method: 680 | Date Extracted: 04/07/2017 14:58

Sample wt/vol: 1004.8(mL) | Date Analyzed: 04/14/2017 17:22

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 476005 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.0054	U	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0065	U	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	77		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW37B-032917 | Lab Sample ID: 240-77416-2

Matrix: Water | Lab File ID: xd1421.D

Analysis Method: 680 | Date Collected: 03/29/2017 10:05

Extract. Method: 680 | Date Extracted: 04/07/2017 14:58

Sample wt/vol: 990.1(mL) | Date Analyzed: 04/14/2017 17:51

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 476005 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0057	U	0.10	0.0057
2051-24-3	DCB Decachlorobiphenyl	0.071	U	0.50	0.071
25512-42-9	Dichlorobiphenyl	0.0055	U	0.10	0.0055
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0066	U	0.10	0.0066

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	92		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW114A-032917 | Lab Sample ID: 240-77416-3

Matrix: Water | Lab File ID: xd1422.D

Analysis Method: 680 | Date Collected: 03/29/2017 11:50

Extract. Method: 680 | Date Extracted: 04/07/2017 14:58

Sample wt/vol: 1042(mL) | Date Analyzed: 04/14/2017 18:20

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 476005 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.036	U	0.29	0.036
27323-18-8	Monochlorobiphenyl	0.010	J	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.012	U	0.19	0.012
25323-68-6	Trichlorobiphenyl	0.0062	U	0.096	0.0062

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	76		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW113A-032917 | Lab Sample ID: 240-77416-4

Matrix: Water | Lab File ID: xd1423.D

Analysis Method: 680 | Date Collected: 03/29/2017 12:55

Extract. Method: 680 | Date Extracted: 04/07/2017 14:58

Sample wt/vol: 962.4(mL) | Date Analyzed: 04/14/2017 18:49

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 476005 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.031	U	0.31	0.031
26601-64-9	Hexachlorobiphenyl	0.016	U	0.21	0.016
53742-07-7	Nonachlorobiphenyl	0.051	U	0.52	0.051
55722-26-4	Octachlorobiphenyl	0.039	U	0.31	0.039
27323-18-8	Monochlorobiphenyl	0.0058	U	0.10	0.0058
2051-24-3	DCB Decachlorobiphenyl	0.073	U	0.52	0.073
25512-42-9	Dichlorobiphenyl	0.0056	U	0.10	0.0056
25429-29-2	Pentachlorobiphenyl	0.015	U	0.21	0.015
26914-33-0	Tetrachlorobiphenyl	0.014	U	0.21	0.014
25323-68-6	Trichlorobiphenyl	0.0068	U	0.10	0.0068

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	87		25-113

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW37A-032917 Lab Sample ID: 240-77416-1

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/29/2017 08:20

Reporting Basis: WET Date Received: 03/30/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW37A-032917 Lab Sample ID: 240-77416-1

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/29/2017 08:20

Reporting Basis: WET Date Received: 03/30/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	5000	710	ug/L			1	6010C
7440-09-7	Potassium	7300	5000	70	ug/L		B	1	6010C
7439-95-4	Magnesium	24000	5000	230	ug/L			1	6010C
7440-23-5	Sodium	15000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	3800	1100	140	ug/L			1	6010C
7439-89-6	Iron	690	100	25	ug/L			1	6010C
7439-96-5	Manganese	15	15	5.1	ug/L			1	6010C
7440-36-0	Antimony	2.8	2.0	0.27	ug/L		B	1	6020A
7440-38-2	Arsenic	2.1	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	40	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.33	1.0	0.31	ug/L	J		1	6020A
7440-48-4	Cobalt	2.1	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	1.8	2.0	0.26	ug/L	J	B	1	6020A
7440-50-8	Copper	2.4	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.89	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	2.3	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	1.1	1.0	0.16	ug/L			1	6020A
7782-49-2	Selenium	5.6	5.0	0.48	ug/L			1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	2.0	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	13	20	6.2	ug/L	J		1	6020A
7440-22-4	Silver	0.033	1.0	0.030	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW37B-032917 Lab Sample ID: 240-77416-2

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/29/2017 10:05

Reporting Basis: WET Date Received: 03/30/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	7800	5000	710	ug/L			1	6010C
7440-09-7	Potassium	2600	5000	70	ug/L	J	B	1	6010C
7439-95-4	Magnesium	3900	5000	230	ug/L	J		1	6010C
7440-23-5	Sodium	14000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	3600	1100	140	ug/L			1	6010C
7439-89-6	Iron	330	100	25	ug/L			1	6010C
7439-96-5	Manganese	100	15	5.1	ug/L			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW14A-033017 Lab Sample ID: 240-77566-1

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/30/2017 08:20

Reporting Basis: WET Date Received: 04/01/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW14A-033017 Lab Sample ID: 240-77566-1

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/30/2017 08:20

Reporting Basis: WET Date Received: 04/01/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.62	2.0	0.27	ug/L	J	B	1	6020A
7440-38-2	Arsenic	0.94	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	80	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	13	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.26	2.0	0.26	ug/L	U		1	6020A
7440-50-8	Copper	0.74	2.0	0.36	ug/L	J	B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	14	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	0.21	1.0	0.16	ug/L	J	B	1	6020A
7782-49-2	Selenium	3.0	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	6.2	20	6.2	ug/L	U		1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW14C-033017 Lab Sample ID: 240-77566-2

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/30/2017 10:05

Reporting Basis: WET Date Received: 04/01/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW14C-033017 Lab Sample ID: 240-77566-2

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/30/2017 10:05

Reporting Basis: WET Date Received: 04/01/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.9	2.0	0.27	ug/L	J	B	1	6020A
7440-38-2	Arsenic	0.93	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	77	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	8.6	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	2.0	2.0	0.26	ug/L			1	6020A
7440-50-8	Copper	1.4	2.0	0.36	ug/L	J	B	1	6020A
7439-98-7	Molybdenum	0.52	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	14	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	0.91	1.0	0.16	ug/L	J	B	1	6020A
7782-49-2	Selenium	0.64	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	2.3	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	15	20	6.2	ug/L	J	B	1	6020A
7440-22-4	Silver	0.093	1.0	0.030	ug/L	J	B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW106B/C-033017 Lab Sample ID: 240-77566-3

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/30/2017 11:50

Reporting Basis: WET Date Received: 04/01/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW106B/C-033017 Lab Sample ID: 240-77566-3

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/30/2017 11:50

Reporting Basis: WET Date Received: 04/01/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.7	2.0	0.27	ug/L	J	B	1	6020A
7440-38-2	Arsenic	1.5	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	140	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	26	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.45	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.52	2.0	0.36	ug/L	J	B	1	6020A
7439-98-7	Molybdenum	0.66	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	19	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	0.38	1.0	0.16	ug/L	J	B	1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	8.3	20	6.2	ug/L	J	B	1	6020A
7440-22-4	Silver	0.038	1.0	0.030	ug/L	J	B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW107B/C-033017 Lab Sample ID: 240-77566-4

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/30/2017 12:55

Reporting Basis: WET Date Received: 04/01/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW107B/C-033017 Lab Sample ID: 240-77566-4

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/30/2017 12:55

Reporting Basis: WET Date Received: 04/01/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.77	2.0	0.27	ug/L	J	B	1	6020A
7440-38-2	Arsenic	0.80	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	220	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	19	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	3.4	2.0	0.26	ug/L			1	6020A
7440-50-8	Copper	4.2	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.88	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	55	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	2.8	1.0	0.16	ug/L		B	1	6020A
7782-49-2	Selenium	0.90	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	4.5	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	16000	100	31	ug/L		B	5	6020A
7440-22-4	Silver	0.051	1.0	0.030	ug/L	J	B	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-DUP05-033017 Lab Sample ID: 240-77566-8

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/30/2017 00:00

Reporting Basis: WET Date Received: 04/01/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-DUP05-033017 Lab Sample ID: 240-77566-8

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/30/2017 00:00

Reporting Basis: WET Date Received: 04/01/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.7	2.0	0.27	ug/L	J	B	1	6020A
7440-38-2	Arsenic	1.5	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	140	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	27	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.37	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.44	2.0	0.36	ug/L	J	B	1	6020A
7439-98-7	Molybdenum	0.68	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	21	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	0.34	1.0	0.16	ug/L	J	B	1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	11	20	6.2	ug/L	J	B	1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW21B-040317 Lab Sample ID: 240-77601-2

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2017 10:25

Reporting Basis: WET Date Received: 04/04/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	35000	100	25	ug/L			1	6010C
7439-96-5	Manganese	3400	15	5.1	ug/L			1	6010C
7440-23-5	Sodium	16000	5000	330	ug/L			1	6010C
7440-09-7	Potassium	2800	5000	70	ug/L	J		1	6010C
14808-60-7	SiO2, Silica	15000	1100	140	ug/L			1	6010C
7440-70-2	Calcium	8000	5000	710	ug/L			1	6010C
7439-95-4	Magnesium	7300	5000	230	ug/L			1	6010C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW37A-032917 Lab Sample ID: 240-77416-1

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/29/2017 08:20

Reporting Basis: WET Date Received: 03/30/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	84	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	13	1.0	0.41	mg/L			1	300.0
14797-65-0	Nitrite as N	0.038	0.10	0.038	mg/L	U		1	300.0
14797-55-8	Nitrate as N	2.5	0.10	0.035	mg/L			1	300.0
14808-79-8	Sulfate	360	5.0	0.65	mg/L			5	300.0
	Orthophosphate as P	0.014	0.10	0.0050	mg/L	J		1	4500 P E-1999
	Total Dissolved Solids	640	10	7.4	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW37A-032917 Lab Sample ID: 240-77416-1

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/29/2017 08:20

Reporting Basis: WET Date Received: 03/30/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	3.3	1.0	0.080	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW37B-032917 Lab Sample ID: 240-77416-2

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/29/2017 10:05

Reporting Basis: WET Date Received: 03/30/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	6.4	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	25	1.0	0.41	mg/L			1	300.0
14797-65-0	Nitrite as N	0.038	0.10	0.038	mg/L	U		1	300.0
14797-55-8	Nitrate as N	1.2	0.10	0.035	mg/L			1	300.0
14808-79-8	Sulfate	26	1.0	0.13	mg/L			1	300.0
	Orthophosphate as P	0.047	0.10	0.0050	mg/L	J		1	4500 P E-1999
	Total Dissolved Solids	110	10	7.4	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW37B-032917 Lab Sample ID: 240-77416-2

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/29/2017 10:05

Reporting Basis: WET Date Received: 03/30/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	0.86	1.0	0.080	mg/L	J		1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW21B-040317 Lab Sample ID: 240-77601-2

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2017 10:25

Reporting Basis: WET Date Received: 04/04/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	34	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	79	1.0	0.41	mg/L			1	300.0
14797-65-0	Nitrite as N	0.038	0.10	0.038	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.035	0.10	0.035	mg/L	U		1	300.0
14808-79-8	Sulfate	2.7	1.0	0.13	mg/L			1	300.0
	Total Dissolved Solids	190	10	7.4	mg/L			1	SM 2540C
	Orthophosphate as P	0.023	0.10	0.0050	mg/L	J		1	SM 4500 P E

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW21B-040317 Lab Sample ID: 240-77601-2

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 04/03/2017 10:25

Reporting Basis: WET Date Received: 04/04/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	0.42	1.0	0.080	mg/L	J	B	1	9060

Appendix C

Support Documentation

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-77416-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 522 analysis was performed at TestAmerica Burlington Laboratory. The 680 analysis was performed at TestAmerica Savannah Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 3/30/2017 9:30 AM, 4/1/2017 10:00 AM, 4/4/2017 9:20 AM and 4/6/2017 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 1.1º C, 1.9º C, 1.9º C, 2.5º C and 3.1º C.

1,4-DIOXANE

Samples MRC-MW37A-032917 (240-77416-1), MRC-MW14A-033017 (240-77566-1), MRC-MW21A-040317 (240-77601-1), MRC-MW37B-032917 (240-77416-2), MRC-MW14C-033017 (240-77566-2), MRC-MW21B-040317 (240-77601-2), MRC-MW114A-032917 (240-77416-3), MRC-MW22A-040317 (240-77601-3), MRC-MW90B-040417 (240-77761-3), MRC-MW113A-032917 (240-77416-4), MRC-MW19A-040317 (240-77601-4), MRC-MW96A-040417 (240-77761-4), MRC-MW96B-040417 (240-77761-5), MRC-MW17A-040517 (240-77761-6) and MRC-MW07A-040517 (240-77761-7) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 04/17/2017 and analyzed on 04/18/2017 and 04/19/2017.

Sample MRC-MW21B-040317 (240-77566-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MRC-MW37A-032917 (240-77416-1), MRC-MW14A-033017 (240-77566-1), MRC-MW21A-040317 (240-77601-1), TB-040418 (240-77761-1), MRC-MW37B-032917 (240-77416-2), MRC-MW14C-033017 (240-77566-2), MRC-MW21B-040317 (240-77601-2), MRC-MW50A-040417 (240-77761-2), MRC-MW114A-032917 (240-77416-3), MRC-MW106B/C-033017 (240-77566-3), MRC-MW22A-040317 (240-77601-3), MRC-MW90B-040417 (240-77761-3), MRC-MW113A-032917 (240-77416-4), MRC-MW107B/C-033017 (240-77566-4), MRC-MW19A-040317 (240-77601-4), MRC-MW96A-040417 (240-77761-4), TB-032917 (240-77416-5), TB-033117 (240-77566-5), TB-040317 (240-77601-5), MRC-MW96B-040417 (240-77761-5), MRC-MW102B-032917 (240-77416-6), MRC-MW38A-033117 (240-77566-6), MRC-MW17A-040517 (240-77761-6), MRC-MW38B-033117 (240-77566-7) and MRC-DUP05-033017 (240-77566-8) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 03/31/2017, 04/07/2017, 04/10/2017 and 04/11/2017.

Methylene Chloride was detected in method blank MB 240-273734/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-273938/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-274127/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MRC-MW37B-032917 (240-77416-2)[1.25X], MRC-MW21B-040317 (240-77416-2)[12.5X], MRC-MW114A-032917 (240-77416-3)[10X], MRC-MW113A-032917 (240-77416-4)[20X], MRC-MW96A-040417 (240-77416-4)[500X], MRC-MW96B-040417 (240-77416-5)[12.5X], MRC-MW17A-040517 (240-77416-6)[1.25X], MRC-MW102B-032917 (240-77416-6)[12.5X] and MRC-MW17A-040517 (240-77416-6)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) for analytical batch 272768 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required. TB-032917 (240-77416-5)

The continuing calibration verification (CCV) analyzed in batch 240-273734 was outside the method criteria for the following analytes: 1,2,3-Trichlorobenzene and Chloroethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. MRC-MW37A-032917 (240-77416-1), MRC-MW37B-032917 (240-77416-2), MRC-MW102B-032917 (240-77416-6) and (CCVIS 240-273734/3)

The continuing calibration verification (CCV) analyzed in batch 240-273734 was outside the method criteria for the following analyte: Chloroethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. MRC-MW114A-032917 (240-77416-3) and MRC-MW113A-032917 (240-77416-4)

The continuing calibration verification (CCV) associated with batch 240-273938 recovered above the upper control limit for Dichlorodi fluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. TB-040418 (240-77761-1), MRC-MW50A-040417 (240-77761-2), MRC-MW90B-040417 (240-77761-3), MRC-MW96A-040417 (240-77761-4), MRC-MW96B-040417 (240-77761-5) and (CCVIS 240-273938/3)

The continuing calibration verification (CCV) analyzed in batch 240-274127 was outside the method criteria for the following analytes: 1,1,2 Trichloro-1,2,2- trifluoroethane and carbon disulfide. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. MRC-MW17A-040517 (240-77761-6) and (CCVIS 240-274127/3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED GASES

Samples MRC-MW37A-032917 (240-77416-1), MRC-MW37B-032917 (240-77416-2) and MRC-MW21B-040317 (240-77601-2) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 04/11/2017 and 04/12/2017.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-274378.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples MRC-MW37A-032917 (240-77416-1), MRC-MW37B-032917 (240-77416-2), MRC-MW114A-032917 (240-77416-3) and MRC-MW113A-032917 (240-77416-4) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 04/07/2017 and analyzed on 04/14/2017.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 680-475231 and analytical batch 680-476005 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)

Samples MRC-MW37A-032917 (240-77416-1), MRC-MW37B-032917 (240-77416-2) and MRC-MW21B-040317 (240-77601-2) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 03/31/2017 and 04/05/2017 and analyzed on 04/03/2017 and 04/06/2017.

Potassium was detected in method blank MB 240-272772/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)
Samples MRC-MW37A-032917 (240-77416-1), MRC-MW14A-033017 (240-77566-1), MRC-MW14C-033017 (240-77566-2), MRC-MW106B/C-033017 (240-77566-3), MRC-MW107B/C-033017 (240-77566-4) and MRC-DUP05-033017 (240-77566-8) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 03/31/2017 and 04/03/2017 and analyzed on 04/04/2017 and 04/05/2017.

Several analytes were detected in method blank MB 240-272772/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Antimony was detected in method blank MB 240-272983/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 240-272983/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Sample MRC-MW107B/C-033017 (240-77566-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY
Samples MRC-MW37A-032917 (240-77416-1), MRC-MW14A-033017 (240-77566-1), MRC-MW14C-033017 (240-77566-2), MRC-MW106B/C-033017 (240-77566-3), MRC-MW107B/C-033017 (240-77566-4) and MRC-DUP05-033017 (240-77566-8) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 03/31/2017 and 04/03/2017 and analyzed on 04/03/2017 and 04/04/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY
Samples MRC-MW37A-032917 (240-77416-1), MRC-MW37B-032917 (240-77416-2) and MRC-MW21B-040317 (240-77601-2) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 04/03/2017 and 04/07/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS
Samples MRC-MW37A-032917 (240-77416-1), MRC-MW37B-032917 (240-77416-2) and MRC-MW21B-040317 (240-77601-2) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 04/04/2017 and 04/05/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS
Samples MRC-MW37A-032917 (240-77416-1), MRC-MW37B-032917 (240-77416-2) and MRC-MW21B-040317 (240-77601-2) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 03/30/2017 and 04/04/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS
Samples MRC-MW37A-032917 (240-77416-1), MRC-MW37B-032917 (240-77416-2) and MRC-MW21B-040317 (240-77601-2) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 03/30/2017, 04/03/2017 and 04/04/2017.

Sample MRC-MW37A-032917 (240-77416-1)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL PHOSPHORUS
Sample MRC-MW21B-040317 (240-77601-2) was analyzed for total phosphorus in accordance with SM 4500 P E. The samples were analyzed on 04/06/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ORTHOPHOSPHATE AS P
Samples MRC-MW37A-032917 (240-77416-1), MRC-MW37B-032917 (240-77416-2) and MRC-MW21B-040317 (240-77601-2) were analyzed for orthophosphate as P in accordance with SM 4500 P E. The samples were analyzed on 03/30/2017 and 04/04/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED ORGANIC CARBON

Samples MRC-MW37A-032917 (240-77416-1), MRC-MW37B-032917 (240-77416-2) and MRC-MW21B-040317 (240-77601-2) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 04/04/2017 and 04/12/2017.

Dissolved Organic Carbon was detected in method blank MB 240-274401/4 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA TITRATION

Samples MRC-MW37A-032917 (240-77416-1), MRC-MW37B-032917 (240-77416-2) and MRC-MW21B-040317 (240-77601-2) were analyzed for Ammonia Titration in accordance with Standard Methods 4500 NH3-C. The samples were prepared and analyzed on 04/04/2017 and 04/11/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

2.2/C1.9
3.4/C3.1

North Canton
4101 Shuffel Street, N. W.
North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Michael Martin	Site Contact: Stu Cameron	Date: 3/29/2017	COC No:
Tetra Tech	Tel/Fax: 410-707-5259 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No. 112IC07776-13
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			SDG No.
(301) 528-3002 Phone	TAT if different from Below: 21 DAYS			
(301) 528-3000 FAX	☐ 2 weeks			Sampler: S. Cameron
Project Name: MRC Ground Water Sampling	☐ 1 week			
Site: Middle River Complex, Maryland	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs (8260C)	1,4-Dioxane	Total Metals	PCB Homologs	Chlorinated Benzenes	Cl, NO3, NO2, ortho-P, SO2, TDS	Alkalinity	Ammonia-N, phosphate	Dissolved organic carbon	Dissolved Gases (CH4, ethane, ethene)	Total iron, total manganese	Sample Specific Notes:
MRC-MW37A-032917	3/29/2017	820	GW	Water	18	N	x	x	x	x		x	x	x	x	x	x	
MRC-MW37B-032917	3/29/2017	1005	GW	Water	17	N	x	x		x		x	x	x	x	x	x	
MRC-MW114A-032917	3/29/2017	1150	GW	Water	7	N	x	x		x	x							
MRC-MW113A-032917	3/29/2017	1255	GW	Water	7	N	x	x		x	x							
TB-032917	3/29/2017	--	--	Water	2	N	x											
MRC-MW102B-032817	3/29/2017	1355	GW	Water	3	N	x											VOC samples collected again per lab request
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____							2	2	4	1	2	1	1	3	3	2	4	

240-77416 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: Use sample from VOC vials for Chlorinated Benzene analysis.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Stuart Cameron	Tetra Tech, Inc.	3-29-17 / 1530		TA	3-30-17 930
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 77416**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 3-30-17 Opened on 3-30-17

FedEx 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble~~ Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☑ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____ Yes No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # :** 73416
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
client	8	2.2	1.9	ice
2	7	3.4	3.1	ice

1,4/Cl,1

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Michael Martin	Site Contact: Stu Cameron	Date: 3/31/2017	COC No:
Tetra Tech	Tel/Fax: 410-707-5259 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	**Analysis Turnaround Time**			Job No.
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			112IC07776-13
(301) 528-3002 Phone	TAT if different from Below: 21 DAYS			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MRC Ground Water Sampling	☐ 1 week			Sampler: S. Cameron
Site: Middle River Complex, Maryland	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs (8260C)	1,4-Dioxane	Total Metals	Sample Specific Notes:
MRC-MW14A-033017	3/30/2017	820	GW	Water	6	N	x	x	x	
MRC-MW14C-033017	3/30/2017	1005	GW	Water	16	N	x	x	x	
MRC-MW106B/C-033017	3/30/2017	1150	GW	Water	4	N	x		x	
MRC-MW107B/C-033017	3/30/2017	1255	GW	Water	4	N	x		x	
TB-033117	3/31/2017	--	--	Water	2	N	x			
MRC-MW38A-033117	3/31/2017	~~0905~~ 0930	GW	Water	3	N	x			
MRC-MW38B-033117	3/31/2017	1225	GW	Water	3	N	x			
MRC-DUP05-033017	3/30/17	0000	GW	Water	4	N	X		X	

240-77566 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

2 2 4

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Stuart Cameron	**Tetra Tech, Inc.**	3317/1700			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 775e6**
Canton Facility

Client Tetra Tech Site Name MRC Cooler unpacked by: Gary Burns

Cooler Received on 4/1/17 Opened on 4/1/17

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 1.4 °C Corrected Cooler Temp. 1.1 °C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes (No)
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Are these work share samples? Yes (No)

If yes, Questions 11-15 have been checked at the originating laboratory.

11. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? (Yes) No
13. Were air bubbles >6 mm in any VOA vials? Yes (No) NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # B630301VB (Yes) No
15. Was a LL Hg or Me Hg trip blank present? Yes (No)

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

MW14A - COC time = 0820, label times = 1045
MW14C - COC time = 1005, label times = 1210 (# cont = 6)
MW106B/C - COC time = 1150, label times = 1330
MW107B/C - COC time = 1255, label times = 1510
- will log all times per COC.

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW14A-033017	240-77566-D-1	Amber Glass 250mL - hydrochloric			
MRC-MW14A-033017	240-77566-E-1	Amber Glass 250mL - hydrochloric			
MRC-MW14A-033017	240-77566-F-1	Plastic 250ml - with Nitric Acid	<2		
MRC-MW14C-033017	240-77566-D-2	Amber Glass 250mL - hydrochloric			
MRC-MW14C-033017	240-77566-E-2	Amber Glass 250mL - hydrochloric			
MRC-MW14C-033017	240-77566-F-2	Plastic 250ml - with Nitric Acid	<2		
MRC-MW106B/C-033017	240-77566-D-3	Plastic 250ml - with Nitric Acid	<2		
MRC-MW107B/C-033017	240-77566-D-4	Plastic 250ml - with Nitric Acid	<2		
MRC-DUP05-033017	240-77566-D-8	Plastic 250ml - with Nitric Acid	<2		

180325

2.21.9

BALTIMORE

North Canton
4101 Shuffel Street, N. W.

North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Michael Martin	Site Contact: Stu Cameron	Date: 4/3/2017	COC No:
Tetra Tech	Tel/Fax: 410-707-5259 (cell)	Lab Contact: John McFadden	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 112IC07776-13
Germantown, MD 20874	Calendar (C) or Work Days (W) _____			
(301) 528-3002 Phone	TAT if different from Below: 21 DAYS			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MRC Ground Water Sampling	☐ 1 week			Sampler: S. Cameron
Site: Middle River Complex, Maryland	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs (8260C)	1,4-Dioxane	Cl, NO3, NO2, ortho-P, SO2, TDS	Alkalinity	Ammonia-N, phosphate	Dissolved organic carbon	Dissolved Gases (CH4, ethane, ethene)	Total iron, total manganese	Sample Specific Notes:
MRC-MW21A-040317	4/3/2017	905	GW	Water	5	N	x	x							
MRC-MW21B-040317	4/3/2017	1025	GW	Water	15	N	x	x	x	x	x	x	x	x	
MRC-MW22A-040317	4/3/2017	1205	GW	Water	5	N	x	x							
MRC-MW19A-040317	4/3/2017	1335	GW	Water	5	N	x	x							
TB-040317	4/3/2017	--	--	Water	2	N	x								
															VOC samples collected again per lab request

240-77601 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____	2	2	1	1	3	3	2	4

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: **Use sample from VOC vials for Chlorinated Benzene analysis.**

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Stuart Cameron	Tetra Tech, Inc.	4-3-17 / 1430		TestAmerica	4-3-2017/1430
Relinquished by:	Company: TestAmerica	Date/Time: 4-3-2017/1540	Received by:	Company: FAN	Date/Time: 4/4/17. 9:20
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 2, dated 03/06/2012

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 77601
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: [signature]
Cooler Received on 4/4/17 Opened on 4/4/17
FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 2.2 °C Corrected Cooler Temp. 1.9 °C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # B6303006 Yes No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes No 4/4/17 BM

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Ref: SOP NC-SC-0005, Sample Receiving
\\tacorp\corp\QA\QA_Facilities\Canton-QA\Document-Management\Work-Instruction\In Revision\WI-NC-099-022817 Cooler Receipt Form.doc djl

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW21A-040317	240-77601-D-1	Amber Glass 250mL - hydrochloric			
MRC-MW21A-040317	240-77601-E-1	Amber Glass 250mL - hydrochloric			
MRC-MW21B-040317	240-77601-J-2	Amber Glass 250mL - hydrochloric			
MRC-MW21B-040317	240-77601-K-2	Amber Glass 250mL - hydrochloric			
MRC-MW21B-040317	240-77601-M-2	Plastic 250ml - with Sulfuric Acid	<2		
MRC-MW21B-040317	240-77601-N-2	Plastic 500ml - with Nitric Acid	<2		
MRC-MW22A-040317	240-77601-D-3	Amber Glass 250mL - hydrochloric			
MRC-MW22A-040317	240-77601-E-3	Amber Glass 250mL - hydrochloric			
MRC-MW19A-040317	240-77601-D-4	Amber Glass 250mL - hydrochloric			
MRC-MW19A-040317	240-77601-E-4	Amber Glass 250mL - hydrochloric			

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

2.8/C2.5

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.1
Client Contact: Mr. Stuart Cameron	Phone: 301 951-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 2
Company: Tetra Tech, Inc.				Job #:

Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Germantown	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: MD, 20874			
Phone: 301 528-3022	PO #: 1093454		
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776		
Project Name: MRC 2017 GW	Project #: 24015639		
Site: Middle River Center	SSOW#:		Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List: A	1,4 Dioxane (522)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
TB-040418	4/4/18	—	G	Water			2	1		
MRC-MW50A-040417		1118		Water			3	1		
MRC-MW90B-040417		1223		Water			3	2		
MRC-MW-96A-040417		1444		Water			3	2		
MRC-MW-96B-040417		1552		Water			3	2		
MRC-MW17A-040517	4/5/17	1106		Water			3	2		
MRC-MW07A-040517		1511		Water			—	2		
				Water						
				Water						
				Water						
				Water						

240-77761 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Walt Pryor	Date/Time: 4/5/17/1830	Company: TT INC	Received by:	Date/Time: 4.6.17 915	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 77761**
Canton Facility

Client Tetra tech Site Name _____ Cooler unpacked by:

Cooler Received on 4-6-17 Opened on 4-6-17

FedEx: 1st Grd ~~Exp~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box ~~Client Cooler~~ Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 2.8 °C Corrected Cooler Temp. 2.5 °C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 ~~Yes~~ No
   -Were custody seals on the outside of the cooler(s) signed & dated? ~~Yes~~ No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes ~~No~~
3. Shippers' packing slip attached to the cooler(s)? ~~Yes~~ No
4. Did custody papers accompany the sample(s)? ~~Yes~~ No
5. Were the custody papers relinquished & signed in the appropriate place? ~~Yes~~ No
6. Was/were the person(s) who collected the samples clearly identified on the COC? ~~Yes~~ No
7. Did all bottles arrive in good condition (Unbroken)? ~~Yes~~ No
8. Could all bottle labels be reconciled with the COC? ~~Yes~~ No
9. Were correct bottle(s) used for the test(s) indicated? ~~Yes~~ No
10. Sufficient quantity received to perform indicated analyses? ~~Yes~~ No
11. Are these work share samples? Yes ~~No~~
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? ~~Yes~~ No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? ~~Yes~~ No
13. Were air bubbles >6 mm in any VOA vials? Yes ~~No~~ NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ ~~Yes~~ No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes ~~No~~

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW90B-040417	240-77761-D-3	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW90B-040417	240-77761-E-3	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW96A-040417	240-77761-D-4	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW96A-040417	240-77761-E-4	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW96B-040417	240-77761-D-5	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW96B-040417	240-77761-E-5	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW17A-040517	240-77761-D-6	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW17A-040517	240-77761-E-6	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW07A-040517	240-77761-A-7	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW07A-040517	240-77761-B-7	Amber Glass 250mL - hydrochloric	<2	_____	_____

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-77416-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
680	Polychlorinated Biphenyls (PCBs) (GC/MS)	EPA	TAL SAV
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
4500 NH3 C-1997	Ammonia	SM	TAL CAN
4500 P E-1999	Orthophosphate	SM	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN
SM 4500 P E	Orthophosphate	SM	TAL CAN
350.2			TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-77416-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-77416-1	MRC-MW37A-032917	Water	03/29/17 08:20	03/30/17 09:30
240-77416-2	MRC-MW37B-032917	Water	03/29/17 10:05	03/30/17 09:30
240-77416-3	MRC-MW114A-032917	Water	03/29/17 11:50	03/30/17 09:30
240-77416-4	MRC-MW113A-032917	Water	03/29/17 12:55	03/30/17 09:30
240-77416-5	TB-032917	Water	03/29/17 00:00	03/30/17 09:30
240-77416-6	MRC-MW102B-032917	Water	03/29/17 13:55	03/30/17 09:30
240-77566-1	MRC-MW14A-033017	Water	03/30/17 08:20	04/01/17 10:00
240-77566-2	MRC-MW14C-033017	Water	03/30/17 10:05	04/01/17 10:00
240-77566-3	MRC-MW106B/C-033017	Water	03/30/17 11:50	04/01/17 10:00
240-77566-4	MRC-MW107B/C-033017	Water	03/30/17 12:55	04/01/17 10:00
240-77566-5	TB-033117	Water	03/31/17 00:00	04/01/17 10:00
240-77566-6	MRC-MW38A-033117	Water	03/31/17 09:30	04/01/17 10:00
240-77566-7	MRC-MW38B-033117	Water	03/31/17 12:25	04/01/17 10:00
240-77566-8	MRC-DUP05-033017	Water	03/30/17 00:00	04/01/17 10:00
240-77601-1	MRC-MW21A-040317	Water	04/03/17 09:05	04/04/17 09:20
240-77601-2	MRC-MW21B-040317	Water	04/03/17 10:25	04/04/17 09:20
240-77601-3	MRC-MW22A-040317	Water	04/03/17 12:05	04/04/17 09:20
240-77601-4	MRC-MW19A-040317	Water	04/03/17 13:35	04/04/17 09:20
240-77601-5	TB-040317	Water	04/03/17 00:00	04/04/17 09:20
240-77761-1	TB-040418	Water	04/04/17 00:00	04/06/17 09:15
240-77761-2	MRC-MW50A-040417	Water	04/04/17 11:18	04/06/17 09:15
240-77761-3	MRC-MW90B-040417	Water	04/04/17 12:23	04/06/17 09:15
240-77761-4	MRC-MW96A-040417	Water	04/04/17 14:44	04/06/17 09:15
240-77761-5	MRC-MW96B-040417	Water	04/04/17 15:52	04/06/17 09:15
240-77761-6	MRC-MW17A-040517	Water	04/05/17 11:06	04/06/17 09:15
240-77761-7	MRC-MW07A-040517	Water	04/05/17 15:11	04/06/17 09:15

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

GC/MS VOA

Analysis Batch: 272768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-5	TB-032917	Total/NA	Water	8260C	
MB 240-272768/6	Method Blank	Total/NA	Water	8260C	
LCS 240-272768/4	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 273734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	8260C	
240-77416-2	MRC-MW37B-032917	Total/NA	Water	8260C	
240-77416-3	MRC-MW114A-032917	Total/NA	Water	8260C	
240-77416-4	MRC-MW113A-032917	Total/NA	Water	8260C	
240-77416-6	MRC-MW102B-032917	Total/NA	Water	8260C	
MB 240-273734/7	Method Blank	Total/NA	Water	8260C	
LCS 240-273734/4	Lab Control Sample	Total/NA	Water	8260C	
240-77416-3 MS	MRC-MW114A-032917	Total/NA	Water	8260C	
240-77416-3 MSD	MRC-MW114A-032917	Total/NA	Water	8260C	

Analysis Batch: 273820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77566-1	MRC-MW14A-033017	Total/NA	Water	8260C	
240-77566-2	MRC-MW14C-033017	Total/NA	Water	8260C	
240-77566-3	MRC-MW106B/C-033017	Total/NA	Water	8260C	
240-77566-4	MRC-MW107B/C-033017	Total/NA	Water	8260C	
240-77566-5	TB-033117	Total/NA	Water	8260C	
240-77566-6	MRC-MW38A-033117	Total/NA	Water	8260C	
240-77566-7	MRC-MW38B-033117	Total/NA	Water	8260C	
240-77566-8	MRC-DUP05-033017	Total/NA	Water	8260C	
240-77601-1	MRC-MW21A-040317	Total/NA	Water	8260C	
240-77601-2	MRC-MW21B-040317	Total/NA	Water	8260C	
240-77601-3	MRC-MW22A-040317	Total/NA	Water	8260C	
240-77601-4	MRC-MW19A-040317	Total/NA	Water	8260C	
240-77601-5	TB-040317	Total/NA	Water	8260C	
MB 240-273820/7	Method Blank	Total/NA	Water	8260C	
LCS 240-273820/4	Lab Control Sample	Total/NA	Water	8260C	
240-77601-2 MS	MRC-MW21B-040317	Total/NA	Water	8260C	
240-77601-2 MSD	MRC-MW21B-040317	Total/NA	Water	8260C	

Analysis Batch: 273938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77761-1	TB-040418	Total/NA	Water	8260C	
240-77761-2	MRC-MW50A-040417	Total/NA	Water	8260C	
240-77761-3	MRC-MW90B-040417	Total/NA	Water	8260C	
240-77761-4	MRC-MW96A-040417	Total/NA	Water	8260C	
240-77761-5	MRC-MW96B-040417	Total/NA	Water	8260C	
240-77761-6	MRC-MW17A-040517	Total/NA	Water	8260C	
MB 240-273938/7	Method Blank	Total/NA	Water	8260C	
LCS 240-273938/4	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 274011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-3	MRC-MW114A-032917	Total/NA	Water	8260C	
240-77416-4	MRC-MW113A-032917	Total/NA	Water	8260C	

GC/MS VOA (Continued)

Analysis Batch: 274011 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-274011/8	Method Blank	Total/NA	Water	8260C	
LCS 240-274011/4	Lab Control Sample	Total/NA	Water	8260C	
240-77416-3 MS	MRC-MW114A-032917	Total/NA	Water	8260C	
240-77416-3 MSD	MRC-MW114A-032917	Total/NA	Water	8260C	

Analysis Batch: 274127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77761-6	MRC-MW17A-040517	Total/NA	Water	8260C	
MB 240-274127/7	Method Blank	Total/NA	Water	8260C	
LCS 240-274127/4	Lab Control Sample	Total/NA	Water	8260C	
240-77761-6 MS	MRC-MW17A-040517	Total/NA	Water	8260C	
240-77761-6 MSD	MRC-MW17A-040517	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 115891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	3535A	
240-77416-2	MRC-MW37B-032917	Total/NA	Water	3535A	
240-77416-3	MRC-MW114A-032917	Total/NA	Water	3535A	
240-77416-4	MRC-MW113A-032917	Total/NA	Water	3535A	
240-77566-1	MRC-MW14A-033017	Total/NA	Water	3535A	
240-77566-2	MRC-MW14C-033017	Total/NA	Water	3535A	
240-77601-1	MRC-MW21A-040317	Total/NA	Water	3535A	
240-77601-2	MRC-MW21B-040317	Total/NA	Water	3535A	
240-77601-3	MRC-MW22A-040317	Total/NA	Water	3535A	
240-77601-4	MRC-MW19A-040317	Total/NA	Water	3535A	
240-77761-3	MRC-MW90B-040417	Total/NA	Water	3535A	
240-77761-4	MRC-MW96A-040417	Total/NA	Water	3535A	
240-77761-5	MRC-MW96B-040417	Total/NA	Water	3535A	
240-77761-6	MRC-MW17A-040517	Total/NA	Water	3535A	
240-77761-7	MRC-MW07A-040517	Total/NA	Water	3535A	
MB 200-115891/1-A	Method Blank	Total/NA	Water	3535A	
LLCS 200-115891/2-A	Lab Control Sample	Total/NA	Water	3535A	
LLCSD 200-115891/3-A	Lab Control Sample Dup	Total/NA	Water	3535A	

Analysis Batch: 115901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	522	115891
240-77416-2	MRC-MW37B-032917	Total/NA	Water	522	115891
240-77416-3	MRC-MW114A-032917	Total/NA	Water	522	115891
240-77416-4	MRC-MW113A-032917	Total/NA	Water	522	115891
240-77566-1	MRC-MW14A-033017	Total/NA	Water	522	115891
240-77566-2	MRC-MW14C-033017	Total/NA	Water	522	115891
240-77601-1	MRC-MW21A-040317	Total/NA	Water	522	115891
240-77601-3	MRC-MW22A-040317	Total/NA	Water	522	115891
240-77601-4	MRC-MW19A-040317	Total/NA	Water	522	115891
240-77761-3	MRC-MW90B-040417	Total/NA	Water	522	115891
240-77761-4	MRC-MW96A-040417	Total/NA	Water	522	115891
240-77761-5	MRC-MW96B-040417	Total/NA	Water	522	115891

GC/MS Semi VOA (Continued)

Analysis Batch: 115901 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77761-6	MRC-MW17A-040517	Total/NA	Water	522	115891
240-77761-7	MRC-MW07A-040517	Total/NA	Water	522	115891
MB 200-115891/1-A	Method Blank	Total/NA	Water	522	115891
LLCS 200-115891/2-A	Lab Control Sample	Total/NA	Water	522	115891
LLCSD 200-115891/3-A	Lab Control Sample Dup	Total/NA	Water	522	115891

Analysis Batch: 115937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Total/NA	Water	522	115891

Prep Batch: 475231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	680	
240-77416-2	MRC-MW37B-032917	Total/NA	Water	680	
240-77416-3	MRC-MW114A-032917	Total/NA	Water	680	
240-77416-4	MRC-MW113A-032917	Total/NA	Water	680	
MB 680-475231/9-A	Method Blank	Total/NA	Water	680	
LCS 680-475231/10-A	Lab Control Sample	Total/NA	Water	680	

Analysis Batch: 476005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	680	475231
240-77416-2	MRC-MW37B-032917	Total/NA	Water	680	475231
240-77416-3	MRC-MW114A-032917	Total/NA	Water	680	475231
240-77416-4	MRC-MW113A-032917	Total/NA	Water	680	475231
MB 680-475231/9-A	Method Blank	Total/NA	Water	680	475231
LCS 680-475231/10-A	Lab Control Sample	Total/NA	Water	680	475231

GC VOA

Analysis Batch: 274140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	RSK-175	
240-77416-2	MRC-MW37B-032917	Total/NA	Water	RSK-175	
MB 240-274140/4	Method Blank	Total/NA	Water	RSK-175	
LCS 240-274140/5	Lab Control Sample	Total/NA	Water	RSK-175	

Analysis Batch: 274378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Total/NA	Water	RSK-175	
MB 240-274378/4	Method Blank	Total/NA	Water	RSK-175	
LCS 240-274378/5	Lab Control Sample	Total/NA	Water	RSK-175	

Metals

Prep Batch: 272772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total Recoverable	Water	3005A	
240-77416-2	MRC-MW37B-032917	Total Recoverable	Water	3005A	
MB 240-272772/1-A	Method Blank	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 272772 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-272772/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-272772/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 272774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	7470A	
MB 240-272774/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-272774/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 272983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77566-1	MRC-MW14A-033017	Total Recoverable	Water	3005A	
240-77566-2	MRC-MW14C-033017	Total Recoverable	Water	3005A	
240-77566-3	MRC-MW106B/C-033017	Total Recoverable	Water	3005A	
240-77566-4	MRC-MW107B/C-033017	Total Recoverable	Water	3005A	
240-77566-8	MRC-DUP05-033017	Total Recoverable	Water	3005A	
MB 240-272983/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-272983/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 272984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77566-1	MRC-MW14A-033017	Total/NA	Water	7470A	
240-77566-2	MRC-MW14C-033017	Total/NA	Water	7470A	
240-77566-3	MRC-MW106B/C-033017	Total/NA	Water	7470A	
240-77566-4	MRC-MW107B/C-033017	Total/NA	Water	7470A	
240-77566-8	MRC-DUP05-033017	Total/NA	Water	7470A	
MB 240-272984/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-272984/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 273150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	7470A	272774
MB 240-272774/1-A	Method Blank	Total/NA	Water	7470A	272774
LCS 240-272774/2-A	Lab Control Sample	Total/NA	Water	7470A	272774

Analysis Batch: 273205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total Recoverable	Water	6010C	272772
240-77416-2	MRC-MW37B-032917	Total Recoverable	Water	6010C	272772
MB 240-272772/1-A	Method Blank	Total Recoverable	Water	6010C	272772
LCS 240-272772/2-A	Lab Control Sample	Total Recoverable	Water	6010C	272772

Analysis Batch: 273252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77566-1	MRC-MW14A-033017	Total/NA	Water	7470A	272984
240-77566-2	MRC-MW14C-033017	Total/NA	Water	7470A	272984
240-77566-3	MRC-MW106B/C-033017	Total/NA	Water	7470A	272984
240-77566-4	MRC-MW107B/C-033017	Total/NA	Water	7470A	272984
240-77566-8	MRC-DUP05-033017	Total/NA	Water	7470A	272984
MB 240-272984/1-A	Method Blank	Total/NA	Water	7470A	272984
LCS 240-272984/2-A	Lab Control Sample	Total/NA	Water	7470A	272984

Analysis Batch: 273335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total Recoverable	Water	6020A	272772
240-77566-1	MRC-MW14A-033017	Total Recoverable	Water	6020A	272983
240-77566-2	MRC-MW14C-033017	Total Recoverable	Water	6020A	272983
240-77566-3	MRC-MW106B/C-033017	Total Recoverable	Water	6020A	272983
240-77566-4	MRC-MW107B/C-033017	Total Recoverable	Water	6020A	272983
240-77566-8	MRC-DUP05-033017	Total Recoverable	Water	6020A	272983
MB 240-272772/1-A	Method Blank	Total Recoverable	Water	6020A	272772
MB 240-272983/1-A	Method Blank	Total Recoverable	Water	6020A	272983
LCS 240-272772/3-A	Lab Control Sample	Total Recoverable	Water	6020A	272772
LCS 240-272983/2-A	Lab Control Sample	Total Recoverable	Water	6020A	272983

Prep Batch: 273377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Total Recoverable	Water	3005A	
MB 240-273377/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-273377/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 273538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77566-1	MRC-MW14A-033017	Total Recoverable	Water	6020A	272983
240-77566-4	MRC-MW107B/C-033017	Total Recoverable	Water	6020A	272983
240-77566-4	MRC-MW107B/C-033017	Total Recoverable	Water	6020A	272983
MB 240-272983/1-A	Method Blank	Total Recoverable	Water	6020A	272983
LCS 240-272983/2-A	Lab Control Sample	Total Recoverable	Water	6020A	272983

Analysis Batch: 273782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Total Recoverable	Water	6010C	273377
MB 240-273377/1-A	Method Blank	Total Recoverable	Water	6010C	273377
LCS 240-273377/2-A	Lab Control Sample	Total Recoverable	Water	6010C	273377

General Chemistry

Analysis Batch: 272628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	300.0	
240-77416-2	MRC-MW37B-032917	Total/NA	Water	300.0	
MB 240-272628/27	Method Blank	Total/NA	Water	300.0	
MB 240-272628/3	Method Blank	Total/NA	Water	300.0	
LCS 240-272628/28	Lab Control Sample	Total/NA	Water	300.0	
LCS 240-272628/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 272629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	300.0	
240-77416-2	MRC-MW37B-032917	Total/NA	Water	300.0	
MB 240-272629/27	Method Blank	Total/NA	Water	300.0	
MB 240-272629/3	Method Blank	Total/NA	Water	300.0	
LCS 240-272629/28	Lab Control Sample	Total/NA	Water	300.0	
LCS 240-272629/4	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 272692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	4500 P E-1999	
240-77416-2	MRC-MW37B-032917	Total/NA	Water	4500 P E-1999	
MB 240-272692/3	Method Blank	Total/NA	Water	4500 P E-1999	
LCS 240-272692/4	Lab Control Sample	Total/NA	Water	4500 P E-1999	

Analysis Batch: 272988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	300.0	
MB 240-272988/3	Method Blank	Total/NA	Water	300.0	
LCS 240-272988/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 273095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	2320B-1997	
240-77416-2	MRC-MW37B-032917	Total/NA	Water	2320B-1997	
MB 240-273095/5	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-273095/4	Lab Control Sample	Total/NA	Water	2320B-1997	

Prep Batch: 273182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	4500 NH3 B-1997	
240-77416-2	MRC-MW37B-032917	Total/NA	Water	4500 NH3 B-1997	
MB 240-273182/1-A	Method Blank	Total/NA	Water	4500 NH3 B-1997	
LCS 240-273182/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-1997	

Analysis Batch: 273195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	4500 NH3 C-1997	273182
240-77416-2	MRC-MW37B-032917	Total/NA	Water	4500 NH3 C-1997	273182
MB 240-273182/1-A	Method Blank	Total/NA	Water	4500 NH3 C-1997	273182
LCS 240-273182/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 C-1997	273182

Analysis Batch: 273230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Total/NA	Water	SM 2540C	
240-77416-2	MRC-MW37B-032917	Total/NA	Water	SM 2540C	
MB 240-273230/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-273230/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 273270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Total/NA	Water	300.0	
MB 240-273270/3	Method Blank	Total/NA	Water	300.0	
LCS 240-273270/4	Lab Control Sample	Total/NA	Water	300.0	
240-77601-2 MS	MRC-MW21B-040317	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 273270 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2 MSD	MRC-MW21B-040317	Total/NA	Water	300.0	

Analysis Batch: 273271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Total/NA	Water	300.0	
MB 240-273271/3	Method Blank	Total/NA	Water	300.0	
LCS 240-273271/4	Lab Control Sample	Total/NA	Water	300.0	
240-77601-2 MS	MRC-MW21B-040317	Total/NA	Water	300.0	
240-77601-2 MSD	MRC-MW21B-040317	Total/NA	Water	300.0	

Analysis Batch: 273288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Total/NA	Water	SM 4500 P E	
MB 240-273288/3	Method Blank	Total/NA	Water	SM 4500 P E	
LCS 240-273288/4	Lab Control Sample	Total/NA	Water	SM 4500 P E	
240-77601-2 MS	MRC-MW21B-040317	Total/NA	Water	SM 4500 P E	
240-77601-2 MSD	MRC-MW21B-040317	Total/NA	Water	SM 4500 P E	

Analysis Batch: 273317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77416-1	MRC-MW37A-032917	Dissolved	Water	9060	
240-77416-2	MRC-MW37B-032917	Dissolved	Water	9060	
MB 240-273317/4	Method Blank	Dissolved	Water	9060	
LLCS 240-273317/5	Lab Control Sample	Dissolved	Water	9060	
240-77416-1 MS	MRC-MW37A-032917	Dissolved	Water	9060	
240-77416-1 MSD	MRC-MW37A-032917	Dissolved	Water	9060	

Analysis Batch: 273380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Total/NA	Water	SM 2540C	
MB 240-273380/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-273380/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 273991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Total/NA	Water	2320B-1997	
MB 240-273991/3	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-273991/2	Lab Control Sample	Total/NA	Water	2320B-1997	

Prep Batch: 274268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Total/NA	Water	4500 NH3 B-1997	

Analysis Batch: 274273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Total/NA	Water	4500 NH3 C-1997	274268

General Chemistry (Continued)

Analysis Batch: 274401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-77601-2	MRC-MW21B-040317	Dissolved	Water	9060	
MB 240-274401/4	Method Blank	Dissolved	Water	9060	
LLCS 240-274401/5	Lab Control Sample	Dissolved	Water	9060	
240-77601-2 MS	MRC-MW21B-040317	Dissolved	Water	9060	
240-77601-2 MSD	MRC-MW21B-040317	Dissolved	Water	9060	

Prep Batch: 274268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-274268/1-A	Method Blank			4500 NH3 B-1997	
LCS 240-274268/2-A	Lab Control Sample			4500 NH3 B-1997	

Analysis Batch: 274273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-274268/1-A	Method Blank			350.2	274268
LCS 240-274268/2-A	Lab Control Sample			350.2	274268

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: BFB70329.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX11 BFB Injection Time: 09:21

Analysis Batch No.: 272388

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	43.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	97.7	
175	5.0 - 9.0 % of mass 174	6.7	(6.9) 1
176	95.0 - 101.0 % of mass 174	95.7	(97.9) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272388/2	UXJ1042.D	03/29/2017	09:53
	STD8260 240-272388/3	UXJ1043.D	03/29/2017	10:15
	STD8260 240-272388/4	UXJ1044.D	03/29/2017	10:38
	STD8260 240-272388/5	UXJ1045.D	03/29/2017	11:01
	STD8260 240-272388/6	UXJ1046.D	03/29/2017	11:24
	STD8260 240-272388/7	UXJ1047.D	03/29/2017	11:46
	STD6 240-272388/8	UXJ1049.D	03/29/2017	12:31
	STD5 240-272388/9	UXJ1050.D	03/29/2017	12:54
	STD4 240-272388/10	UXJ1051.D	03/29/2017	13:16
	STD3 240-272388/11	UXJ1052.D	03/29/2017	13:39
	STD2 240-272388/12	UXJ1053.D	03/29/2017	14:02
	STD1 240-272388/13	UXJ1054.D	03/29/2017	14:24
	ICV 240-272388/15	UXJ1055.D	03/29/2017	14:47
	ICV 240-272388/14	UXJ1056.D	03/29/2017	15:09

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: BFB70331.D BFB Injection Date: 03/31/2017

Instrument ID: A3UX11 BFB Injection Time: 09:45

Analysis Batch No.: 272768

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.7	
75	30.0 - 60.0 % of mass 95	44.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	93.8	
175	5.0 - 9.0 % of mass 174	6.9	(7.4) 1
176	95.0 - 101.0 % of mass 174	91.8	(97.8) 1
177	5.0 - 9.0 % of mass 176	6.2	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-272768/2	UXJ1120.D	03/31/2017	10:13
	LCS 240-272768/4	UXJ1121.D	03/31/2017	10:35
	CCV 240-272768/3	UXJ1122.D	03/31/2017	10:58
	MB 240-272768/6	UXJ1124.D	03/31/2017	11:44
TB-032917	240-77416-5	UXJ1127.D	03/31/2017	12:52
	200-37906-B-3 MS	UXJ1145.D	03/31/2017	19:41
	200-37906-B-3 MSD	UXJ1146.D	03/31/2017	20:04

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: BFB3508.D BFB Injection Date: 03/30/2017

Instrument ID: A3UX12 BFB Injection Time: 12:55

Analysis Batch No.: 272636

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.8	
75	30.0 - 60.0 % of mass 95	44.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	80.3	
175	5.0 - 9.0 % of mass 174	6.1	(7.7) 1
176	95.0 - 101.0 % of mass 174	79.2	(98.6) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272636/6	U1256165.D	03/30/2017	14:15
	STD8260 240-272636/7	U1256166.D	03/30/2017	14:40
	STD8260 240-272636/8	U1256167.D	03/30/2017	15:04
	ICIS 240-272636/9	U1256168a.D	03/30/2017	15:28
	STD8260 240-272636/10	U1256169.D	03/30/2017	15:53
	STD8260 240-272636/11	U1256170.D	03/30/2017	16:17
	ICV 240-272636/19	U1256172.D	03/30/2017	17:09

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: BFB3516.D BFB Injection Date: 04/07/2017

Instrument ID: A3UX12 BFB Injection Time: 15:23

Analysis Batch No.: 273820

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.3	
75	30.0 - 60.0 % of mass 95	45.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	77.3	
175	5.0 - 9.0 % of mass 174	5.6	(7.2) 1
176	95.0 - 101.0 % of mass 174	73.9	(95.6) 1
177	5.0 - 9.0 % of mass 176	4.4	(5.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-273820/3	U1256397.D	04/07/2017	15:51
	LCS 240-273820/4	U1256398.D	04/07/2017	16:15
	CCV 240-273820/5	U1256399.D	04/07/2017	16:40
	MB 240-273820/7	U1256401.D	04/07/2017	17:28
MRC-MW21B-040317	240-77601-2	U1256403.D	04/07/2017	18:18
MRC-MW22A-040317	240-77601-3	U1256404.D	04/07/2017	18:43
MRC-MW19A-040317	240-77601-4	U1256405.D	04/07/2017	19:07
TB-040317	240-77601-5	U1256406.D	04/07/2017	19:32
MRC-MW14A-033017	240-77566-1	U1256407.D	04/07/2017	19:57
MRC-MW14C-033017	240-77566-2	U1256408.D	04/07/2017	20:20
MRC-MW106B/C-033017	240-77566-3	U1256409A.D	04/07/2017	20:44
MRC-MW107B/C-033017	240-77566-4	U1256410.D	04/07/2017	21:08
TB-033117	240-77566-5	U1256411.D	04/07/2017	21:32
MRC-MW38A-033117	240-77566-6	U1256412.D	04/07/2017	21:57
MRC-MW38B-033117	240-77566-7	U1256413.D	04/07/2017	22:22
MRC-DUP05-033017	240-77566-8	U1256414.D	04/07/2017	22:47
MRC-MW21A-040317	240-77601-1	U1256417A.D	04/07/2017	23:59
MRC-MW21B-040317 MS	240-77601-2 MS	U1256422.D	04/08/2017	02:02
MRC-MW21B-040317 MSD	240-77601-2 MSD	U1256423.D	04/08/2017	02:27

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: BFB5200.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX16 BFB Injection Time: 13:36

Analysis Batch No.: 272263

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	76.3	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272263/6	UXM1388.D	03/29/2017	14:02
	STD8260 240-272263/7	UXM1389.D	03/29/2017	14:25
	STD8260 240-272263/8	UXM1390.D	03/29/2017	14:48
	ICIS 240-272263/9	UXM1391.D	03/29/2017	15:11
	STD8260 240-272263/10	UXM1392.D	03/29/2017	15:34
	STD8260 240-272263/11	UXM1393.D	03/29/2017	15:56
	ICV 240-272263/20	UXM1402.D	03/29/2017	19:27

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: BFB5211.D BFB Injection Date: 04/10/2017

Instrument ID: A3UX16 BFB Injection Time: 11:55

Analysis Batch No.: 274011

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	49.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.9	(1.1) 1
174	50.0 - 120.00 % of mass 95	81.0	
175	5.0 - 9.0 % of mass 174	6.5	(8.0) 1
176	95.0 - 101.0 % of mass 174	78.3	(96.6) 1
177	5.0 - 9.0 % of mass 176	5.5	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-274011/3	UXM1627.D	04/10/2017	12:23
	LCS 240-274011/4	UXM1628.D	04/10/2017	12:46
	CCV 240-274011/6	UXM1630.D	04/10/2017	13:32
	MB 240-274011/8	UXM1632.D	04/10/2017	14:19
MRC-MW114A-032917	240-77416-3	UXM1633.D	04/10/2017	14:43
MRC-MW113A-032917	240-77416-4	UXM1634.D	04/10/2017	15:06
MRC-MW114A-032917 MS	240-77416-3 MS	UXM1635.D	04/10/2017	15:30
MRC-MW114A-032917 MSD	240-77416-3 MSD	UXM1636.D	04/10/2017	15:53

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: BFB3479.D BFB Injection Date: 10/31/2016

Instrument ID: A3UX9 BFB Injection Time: 12:14

Analysis Batch No.: 253710

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	81.8	
175	5.0 - 9.0 % of mass 174	5.9	(7.2) 1
176	95.0 - 101.0 % of mass 174	80.9	(98.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-253710/8	UX959470.D	10/31/2016	13:31
	STD8260 240-253710/9	UX959471.D	10/31/2016	13:55
	STD8260 240-253710/10	UX959472.D	10/31/2016	14:20
	ICIS 240-253710/11	UX959473.D	10/31/2016	14:44
	STD8260 240-253710/12	UX959474.D	10/31/2016	15:08
	STD8260 240-253710/13	UX959475.D	10/31/2016	15:31
	STDA9 240-253710/15	UX959477.D	10/31/2016	16:20
	STDA9 240-253710/16	UX959478.D	10/31/2016	16:44
	STDA9 240-253710/17	UX959479.D	10/31/2016	17:08
	STDA9 240-253710/18	UX959480.D	10/31/2016	17:32
	STDA9 240-253710/19	UX959481.D	10/31/2016	17:56
	STDA9 240-253710/20	UX959482.D	10/31/2016	18:20
	ICV 240-253710/22	UX959484.D	10/31/2016	19:09
	ICV 240-253710/23	UX959485.D	10/31/2016	19:33

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: BFB3620.D BFB Injection Date: 04/07/2017

Instrument ID: A3UX9 BFB Injection Time: 08:24

Analysis Batch No.: 273734

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.4	
75	30.0 - 60.0 % of mass 95	50.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	89.1	
175	5.0 - 9.0 % of mass 174	6.2	(7.0) 1
176	95.0 - 101.0 % of mass 174	84.9	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-273734/3	UX962956.D	04/07/2017	08:52
	LCS 240-273734/4	UX962957.D	04/07/2017	09:16
	CCV 240-273734/5	UX962958.D	04/07/2017	09:40
	MB 240-273734/7	UX962960.D	04/07/2017	10:28
MRC-MW37A-032917	240-77416-1	UX962966.D	04/07/2017	13:45
MRC-MW37B-032917	240-77416-2	UX962967.D	04/07/2017	14:09
MRC-MW114A-032917	240-77416-3	UX962968.D	04/07/2017	14:33
MRC-MW113A-032917	240-77416-4	UX962969.D	04/07/2017	14:57
MRC-MW102B-032917	240-77416-6	UX962970.D	04/07/2017	15:20
MRC-MW114A-032917 MS	240-77416-3 MS	UX962971.D	04/07/2017	15:44
MRC-MW114A-032917 MSD	240-77416-3 MSD	UX962972.D	04/07/2017	16:08

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: BFB3621.D BFB Injection Date: 04/10/2017

Instrument ID: A3UX9 BFB Injection Time: 08:11

Analysis Batch No.: 273938

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.0	
75	30.0 - 60.0 % of mass 95	50.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.3) 1
174	50.0 - 120.00 % of mass 95	89.2	
175	5.0 - 9.0 % of mass 174	6.6	(7.4) 1
176	95.0 - 101.0 % of mass 174	86.7	(97.3) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-273938/3	UX962992.D	04/10/2017	08:36
	LCS 240-273938/4	UX962993.D	04/10/2017	09:00
	CCV 240-273938/5	UX962994.D	04/10/2017	09:24
	MB 240-273938/7	UX962996.D	04/10/2017	10:12
	240-77684-A-1 MS	UX963005.D	04/10/2017	14:07
	240-77684-A-1 MSD	UX963006.D	04/10/2017	14:31
TB-040418	240-77761-1	UX963008.D	04/10/2017	15:19
MRC-MW50A-040417	240-77761-2	UX963009.D	04/10/2017	15:43
MRC-MW90B-040417	240-77761-3	UX963010.D	04/10/2017	16:07
MRC-MW96A-040417	240-77761-4	UX963011.D	04/10/2017	16:30
MRC-MW96B-040417	240-77761-5	UX963012.D	04/10/2017	16:54
MRC-MW17A-040517	240-77761-6	UX963013.D	04/10/2017	17:16

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: BFB3623.D BFB Injection Date: 04/11/2017

Instrument ID: A3UX9 BFB Injection Time: 08:24

Analysis Batch No.: 274127

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.9	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	91.2	
175	5.0 - 9.0 % of mass 174	7.7	(8.5) 1
176	95.0 - 101.0 % of mass 174	89.1	(97.7) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-274127/3	UX963042.D	04/11/2017	08:51
	LCS 240-274127/4	UX963043.D	04/11/2017	09:15
	CCV 240-274127/5	UX963044.D	04/11/2017	09:39
	MB 240-274127/7	UX963047.D	04/11/2017	10:51
MRC-MW17A-040517	240-77761-6	UX963048.D	04/11/2017	12:10
MRC-MW17A-040517 MS	240-77761-6 MS	UX963064.D	04/11/2017	18:33
MRC-MW17A-040517 MSD	240-77761-6 MSD	UX963065.D	04/11/2017	18:55

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272388/7	UXJ1047.D
Level 2	STD8260 240-272388/6	UXJ1046.D
Level 3	STD8260 240-272388/5	UXJ1045.D
Level 4	STD8260 240-272388/4	UXJ1044.D
Level 5	STD8260 240-272388/3	UXJ1043.D
Level 6	STD8260 240-272388/2	UXJ1042.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1603 0.1921	0.1584	0.1613	0.1577	0.2044	Ave		0.1724			0.1000	11.9		20.0			
Chloromethane	0.2491 0.2109	0.2162	0.2162	0.2125	0.2167	Ave		0.2203			0.1000	6.5		20.0			
Vinyl chloride	0.2103 0.2025	0.2093	0.2060	0.2048	0.2103	Ave		0.2072			0.1000	1.6		20.0			
Butadiene	0.2056 0.1636	0.2480	0.1949	0.1967	0.1922	Ave		0.2001				13.7		20.0			
Bromomethane	0.1553 0.0933	0.1256	0.1058	0.0931	0.0957	Lin1	0.0644	0.0913			0.0500				0.9990		0.9900
Chloroethane	0.0971 0.1004	0.0998	0.1019	0.1022	0.1044	Ave		0.1010			0.0500	2.5		20.0			
Dichlorofluoromethane	0.3749 0.2550	0.3438	0.2709	0.2723	0.2754	Ave		0.2987				16.2		20.0			
Trichlorofluoromethane	0.1860 0.2357	0.2264	0.2197	0.2191	0.2346	Ave		0.2202			0.1000	8.3		20.0			
Ethyl ether	0.2372 0.2220	0.2254	0.2359	0.2329	0.2374	Ave		0.2318				2.8		20.0			
Acrolein	0.0267 0.0275	0.0209	0.0286	0.0301	0.0297	Ave		0.0272				12.3		20.0			
1,1-Dichloroethene	0.2239 0.2146	0.2383	0.2370	0.2366	0.2233	Ave		0.2290			0.1000	4.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1418 0.1374	0.1710	0.1400	0.1336	0.1320	Ave		0.1426			0.0500	10.1		20.0			
Acetone	0.0899 0.0698	0.0697	0.0777	0.0559	0.0734	Ave		0.0728			0.0100	15.3		20.0			
Iodomethane	0.2762 0.2939	0.3233	0.3405	0.3400	0.3239	Ave		0.3163				8.2		20.0			
Carbon disulfide	0.6049 0.6014	0.6235	0.6432	0.6631	0.6332	Ave		0.6282			0.1000	3.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.1541 0.2155	0.1768	0.1947	0.2032	0.2137	Ave		0.1930				12.3		20.0			
Methyl acetate	0.1502 0.1439	0.1483	0.1486	0.1498	0.1534	Ave		0.1490			0.1000	2.1		20.0			
Methylene Chloride	0.4225 0.2443	0.3330	0.2888	0.2680	0.2558	Lin1	0.1884	0.2432			0.1000				1.0000		0.9900
2-Methyl-2-propanol	0.0133 0.0126	0.0144	0.0137	0.0132	0.0136	Ave		0.0135				4.2		20.0			
Acrylonitrile	0.0804 0.0744	0.0752	0.0758	0.0762	0.0786	Ave		0.0768				3.0		20.0			
Methyl tert-butyl ether	0.6853 0.6998	0.6812	0.7122	0.7138	0.7495	Ave		0.7070			0.1000	3.5		20.0			
trans-1,2-Dichloroethene	0.3541 0.2770	0.2899	0.2860	0.2800	0.2806	Ave		0.2946			0.1000	10.0		20.0			
Hexane	0.0647 0.0606	0.0855	0.0650	0.0582	0.0615	Ave		0.0659				15.0		20.0			
1,1-Dichloroethane	0.4828 0.4698	0.4605	0.4785	0.4697	0.4675	Ave		0.4715			0.2000	1.7		20.0			
Vinyl acetate	0.4885 0.4256	0.4150	0.4259	0.4249	0.4476	Ave		0.4379				6.2		20.0			
cis-1,2-Dichloroethene	0.3086 0.3045	0.2831	0.3157	0.3080	0.3059	Ave		0.3043			0.1000	3.6		20.0			
2,2-Dichloropropane	0.2969 0.2429	0.2849	0.2880	0.2767	0.2713	Ave		0.2768				6.8		20.0			
2-Butanone (MEK)	0.0856 0.1002	0.0900	0.0976	0.0889	0.1087	Ave		0.0952			0.0100	9.1		20.0			
Chlorobromomethane	0.1424 0.1414	0.1351	0.1455	0.1402	0.1415	Ave		0.1410				2.4		20.0			
Tetrahydrofuran	0.0584 0.0535	0.0541	0.0553	0.0558	0.0577	Ave		0.0558				3.5		20.0			
Chloroform	0.4596 0.4385	0.4269	0.4516	0.4355	0.4415	Ave		0.4423			0.2000	2.6		20.0			
1,1,1-Trichloroethane	0.3520 0.3112	0.3333	0.3329	0.3290	0.3267	Ave		0.3308			0.1000	4.0		20.0			
Cyclohexane	0.3226 0.3693	0.4157	0.3644	0.3648	0.3705	Ave		0.3679			0.1000	8.0		20.0			
1,1-Dichloropropene	0.3531 0.3655	0.3433	0.3642	0.3628	0.3640	Ave		0.3588				2.5		20.0			
Carbon tetrachloride	0.2696 0.2833	0.2771	0.2852	0.2897	0.2925	Ave		0.2829			0.1000	3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0054 0.0062	0.0056	0.0058	0.0059	0.0070	Ave		0.0060				9.7		20.0			
1,2-Dichloroethane	0.3038 0.3081	0.3005	0.3092	0.3092	0.3114	Ave		0.3070			0.1000	1.3		20.0			
Benzene	1.2544 1.1967	1.1474	1.1805	1.1846	1.1868	Ave		1.1917			0.5000	2.9		20.0			
n-Heptane	0.0588 0.0618	0.0778	0.0537	0.0525	0.0574	Ave		0.0603				15.2		20.0			
Trichloroethene	0.3031 0.2996	0.2845	0.2958	0.3029	0.3024	Ave		0.2980			0.1500	2.4		20.0			
Methylcyclohexane	0.3651 0.3604	0.4206	0.3558	0.3398	0.3500	Ave		0.3653			0.1000	7.8		20.0			
1,2-Dichloropropane	0.2753 0.2798	0.2700	0.2777	0.2773	0.2807	Ave		0.2768			0.1000	1.4		20.0			
Dibromomethane	0.1511 0.1376	0.1410	0.1479	0.1450	0.1454	Ave		0.1447				3.3		20.0			
1,4-Dioxane	0.0006 0.0014	0.0012	0.0017	0.0016	0.0017	Qua	-0.035	0.0020	-0.000001						0.9990		0.9900
Dichlorobromomethane	0.3248 0.3256	0.3060	0.3186	0.3193	0.3277	Ave		0.3203			0.1500	2.5		20.0			
2-Chloroethyl vinyl ether	0.1488 0.1525	0.1435	0.1598	0.1595	0.1611	Ave		0.1542				4.6		20.0			
cis-1,3-Dichloropropene	0.3667 0.4576	0.3819	0.4293	0.4377	0.4543	Ave		0.4213			0.1500	9.1		20.0			
4-Methyl-2-pentanone (MIBK)	0.1897 0.1912	0.1791	0.1957	0.1952	0.2115	Ave		0.1937			0.0500	5.5		20.0			
Toluene	1.7741 1.7554	1.5882	1.7205	1.6569	1.7145	Ave		1.7016			0.4000	4.0		20.0			
trans-1,3-Dichloropropene	0.4332 0.5340	0.4332	0.4862	0.5054	0.5330	Ave		0.4875			0.1000	9.4		20.0			
Ethyl methacrylate	0.4609 0.4782	0.4371	0.4723	0.4791	0.5093	Ave		0.4728				5.0		20.0			
1,1,2-Trichloroethane	0.2737 0.2926	0.2812	0.3069	0.2998	0.3074	Ave		0.2936			0.1000	4.7		20.0			
Tetrachloroethene	0.3257 0.3259	0.3075	0.3204	0.3167	0.3259	Ave		0.3204			0.1500	2.3		20.0			
1,3-Dichloropropane	0.5508 0.5441	0.4982	0.5436	0.5418	0.5561	Ave		0.5391				3.8		20.0			
2-Hexanone	0.1763 0.2095	0.1515	0.2001	0.1850	0.2254	Ave		0.1913			0.0500	13.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2250 0.3372	0.2446	0.2890	0.3106	0.3252	Ave		0.2886				15.6		20.0			
Ethylene Dibromide	0.3157 0.2835	0.2981	0.2940	0.2886	0.2900	Ave		0.2950				3.8		20.0			
Chlorobenzene	1.0772 1.0502	0.9549	1.0420	1.0189	1.0365	Ave		1.0299			0.3000	4.0		20.0			
1,1,1,2-Tetrachloroethane	0.3328 0.3558	0.3181	0.3487	0.3520	0.3500	Ave		0.3429				4.2		20.0			
Ethylbenzene	0.5781 0.5679	0.5240	0.5615	0.5550	0.5641	Ave		0.5585				3.3		20.0			
m-Xylene & p-Xylene	0.7120 0.6936	0.6416	0.6926	0.6836	0.7009	Ave		0.6874				3.5		20.0			
o-Xylene	0.6710 0.6584	0.6124	0.6755	0.6620	0.6659	Ave		0.6575				3.5		20.0			
Styrene	1.1948 1.2052	1.0973	1.2038	1.1677	1.2000	Ave		1.1781			0.3000	3.6		20.0			
Bromoform	0.1088 0.2086	0.1276	0.1561	0.1793	0.2007	Lin1	-0.138	0.2067			0.1000				0.9970		0.9900
Isopropylbenzene	1.5677 1.6128	1.4753	1.5937	1.5519	1.5881	Ave		1.5649			0.1000	3.1		20.0			
1,1,2,2-Tetrachloroethane	0.6626 0.6723	0.6522	0.6683	0.6985	0.7133	Ave		0.6779			0.3000	3.4		20.0			
Bromobenzene	0.9267 0.9186	0.8563	0.8967	0.8864	0.9068	Ave		0.8986				2.8		20.0			
1,2,3-Trichloropropane	0.3173 0.2076	0.2047	0.2131	0.2102	0.2217	Ave		0.2291				19.0		20.0			
trans-1,4-Dichloro-2-butene	0.1101 0.1501	0.1042	0.0985	0.0982	0.1305	Ave		0.1153				18.1		20.0			
N-Propylbenzene	0.9053 0.8876	0.8180	0.8521	0.8411	0.8542	Ave		0.8597				3.7		20.0			
2-Chlorotoluene	0.8878 0.7638	0.7625	0.7958	0.7737	0.7491	Ave		0.7888				6.5		20.0			
1,3,5-Trimethylbenzene	2.4481 2.5421	2.3447	2.4454	2.4236	2.4490	Ave		2.4421				2.6		20.0			
4-Chlorotoluene	0.8789 0.8143	0.8094	0.7888	0.7925	0.7814	Ave		0.8109				4.4		20.0			
tert-Butylbenzene	2.1204 2.1411	2.0019	2.0719	2.0467	2.0821	Ave		2.0774				2.4		20.0			
1,2,4-Trimethylbenzene	2.6319 2.6041	2.4369	2.4811	2.4859	2.5064	Ave		2.5244				3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 09:53 Calibration End Date: 03/29/2017 11:46 Calibration ID: 39174

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.7503 2.8029	2.5631	2.6283	2.6548	2.6674	Ave		2.6778				3.2		20.0			
1,3-Dichlorobenzene	1.5265 1.4672	1.3965	1.5191	1.4340	1.4524	Ave		1.4660			0.6000	3.4		20.0			
4-Isopropyltoluene	2.3033 2.4239	2.2080	2.2762	2.2933	2.3300	Ave		2.3058				3.1		20.0			
1,4-Dichlorobenzene	1.5825 1.5295	1.4512	1.5325	1.4911	1.4999	Ave		1.5145			0.5000	2.9		20.0			
n-Butylbenzene	1.9521 1.8489	1.7283	1.8047	1.7726	1.7963	Ave		1.8172				4.2		20.0			
1,2-Dichlorobenzene	1.4123 1.3422	1.2790	1.3396	1.3381	1.3553	Ave		1.3444			0.4000	3.2		20.0			
1,2-Dibromo-3-Chloropropane	0.0941 0.1214	0.1100	0.1123	0.1225	0.1306	Ave		0.1151			0.0500	11.1		20.0			
1,2,4-Trichlorobenzene	0.7459 0.7159	0.6811	0.6942	0.6932	0.6843	Ave		0.7024			0.2000	3.5		20.0			
Hexachlorobutadiene	0.3422 0.3089	0.3100	0.3209	0.3128	0.3015	Ave		0.3161				4.5		20.0			
Naphthalene	1.6223 1.5604	1.4977	1.5542	1.5956	1.6680	Ave		1.5830				3.7		20.0			
1,2,3-Trichlorobenzene	0.5850 0.5964	0.5669	0.5945	0.5957	0.5961	Ave		0.5891				2.0		20.0			
Dibromofluoromethane (Surr)	0.2660 0.2297	0.2382	0.2290	0.2327	0.2318	Ave		0.2379				5.9		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2934 0.2612	0.2774	0.2726	0.2714	0.2754	Ave		0.2752				3.8		20.0			
Toluene-d8 (Surr)	1.4632 1.4815	1.4274	1.4333	1.4143	1.4441	Ave		1.4440				1.7		20.0			
4-Bromofluorobenzene (Surr)	0.5365 0.4571	0.4569	0.4798	0.4735	0.4735	Ave		0.4796				6.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 12:31 Calibration End Date: 03/29/2017 14:24 Calibration ID: 39177

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-272388/13	UXJ1054.D
Level 2	STD2 240-272388/12	UXJ1053.D
Level 3	STD3 240-272388/11	UXJ1052.D
Level 4	STD4 240-272388/10	UXJ1051.D
Level 5	STD5 240-272388/9	UXJ1050.D
Level 6	STD6 240-272388/8	UXJ1049.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0177 0.0192	0.0183	0.0174	0.0175	0.0187	Ave		0.0181				4.0		20.0			
Isopropyl ether	0.2504 0.2743	0.2527	0.2649	0.2630	0.2649	Ave		0.2617				3.4		20.0			
2-Chloro-1,3-butadiene	0.4822 0.4590	0.4644	0.4565	0.4414	0.4465	Ave		0.4583				3.1		20.0			
Tert-butyl ethyl ether	0.8190 0.8783	0.8155	0.8407	0.8244	0.8449	Ave		0.8371				2.8		20.0			
Ethyl acetate	0.2094 0.1991	0.1864	0.1900	0.1839	0.1924	Ave		0.1936				4.9		20.0			
Propionitrile	0.0233 0.0251	0.0240	0.0245	0.0235	0.0244	Ave		0.0241				2.8		20.0			
Methacrylonitrile	0.1310 0.1426	0.1323	0.1303	0.1287	0.1345	Ave		0.1333				3.7		20.0			
Tert-amyl methyl ether	0.7290 0.8063	0.7294	0.7543	0.7328	0.7718	Ave		0.7539				4.1		20.0			
n-Butanol	0.0054 0.0043	0.0056	0.0053	0.0049	0.0052	Ave		0.0051				9.0		20.0			
Ethyl acrylate	0.3056 0.3065	0.2876	0.2823	0.2856	0.2944	Ave		0.2937				3.5		20.0			
Methyl methacrylate	0.2016 0.2089	0.2030	0.2018	0.1933	0.2019	Ave		0.2018				2.5		20.0			
2-Nitropropane	0.0460 0.0498	0.0547	0.0494	0.0467	0.0477	Ave		0.0491				6.4		20.0			
n-Butyl acetate	0.3308 0.3553	0.3267	0.3137	0.3184	0.3402	Ave		0.3308				4.6		20.0			
1-Chlorohexane	0.4951 0.4554	0.4882	0.4566	0.4410	0.4395	Ave		0.4626				5.1		20.0			
Cyclohexanone	0.0203 0.0112	0.0160	0.0142	0.0126	0.0129	Lin1	0.0975	0.0115							0.9960		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272388

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 12:31 Calibration End Date: 03/29/2017 14:24 Calibration ID: 39177

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1862 0.2182	0.1804	0.1963	0.1900	0.2053	Lin1	-0.106	0.2126							0.9980		0.9900
1,2,3-Trimethylbenzene	2.4872 2.6199	2.3926	2.5984	2.4932	2.5689	Ave		2.5267				3.4		20.0			
Benzyl chloride	0.3185 0.3337	0.2902	0.3197	0.3054	0.3297	Lin1	-0.045	0.3303							0.9990		0.9900
1,3,5-Trichlorobenzene	0.8421 0.8033	0.7516	0.8419	0.7982	0.7756	Ave		0.8021				4.5		20.0			
2-Methylnaphthalene	1.0018 0.8689	0.9813	0.9552	0.9202	0.9360	Ave		0.9439				5.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272636/6	U1256165.D
Level 2	STD8260 240-272636/7	U1256166.D
Level 3	STD8260 240-272636/8	U1256167.D
Level 4	ICIS 240-272636/9	U1256168a.D
Level 5	STD8260 240-272636/10	U1256169.D
Level 6	STD8260 240-272636/11	U1256170.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3798 0.4766	0.3214	0.4275	0.4725	0.4854	Ave		0.4272			0.1000	15.3		20.0			
Chloromethane	0.5018 0.5166	0.4950	0.5342	0.5144	0.5206	Ave		0.5137			0.1000	2.7		20.0			
Vinyl chloride	0.4946 0.5486	0.4759	0.5444	0.5327	0.5490	Ave		0.5242			0.1000	6.0		20.0			
Butadiene	0.4937 0.5211	0.4355	0.5011	0.5174	0.5331	Ave		0.5003				6.9		20.0			
Bromomethane	0.2405 0.2668	0.2512	0.2726	0.2645	0.2780	Ave		0.2623			0.0500	5.3		20.0			
Chloroethane	0.3009 0.3306	0.2714	0.3204	0.3113	0.3307	Ave		0.3109			0.0500	7.2		20.0			
Dichlorofluoromethane	0.6919 0.6606	0.5826	0.6566	0.6472	0.6648	Ave		0.6506				5.6		20.0			
Trichlorofluoromethane	0.3709 0.5153	0.3240	0.4721	0.4860	0.5147	Ave		0.4471			0.1000	18.0		20.0			
Ethyl ether	0.2324 0.2745	0.2641	0.2762	0.2765	0.2741	Ave		0.2663				6.5		20.0			
Acrolein	0.0343 0.0441	0.0286	0.0455	0.0441	0.0446	Ave		0.0402				17.5		20.0			
1,1-Dichloroethene	0.5546 0.6162	0.5673	0.6038	0.5773	0.6104	Ave		0.5883			0.1000	4.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2905 0.3480	0.2826	0.3105	0.3279	0.3444	Ave		0.3173			0.0500	8.6		20.0			
Acetone	+++++ 0.1200	0.1724	0.1041	0.1083	0.1221	Lin1	0.0734	0.1166			0.0100				0.9960		0.9900
Iodomethane	0.4944 0.5532	0.5254	0.5564	0.5281	0.5503	Ave		0.5346				4.4		20.0			
Carbon disulfide	1.2572 1.0916	1.1908	1.0252	1.0345	1.0856	Ave		1.1141			0.1000	8.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	+++++ 0.3042	0.2591	0.3130	0.4835	0.3622	Ave		0.3444				25.0	*	20.0			
Methyl acetate	0.1773 0.2193	0.2236	0.2275	0.2192	0.2190	Ave		0.2143			0.1000	8.6		20.0			
Methylene Chloride	+++++ 0.4872	1.5296	0.5897	0.4995	0.4909	Lin1	1.0661	0.4653			0.1000				1.0000		0.9900
2-Methyl-2-propanol	0.0268 0.0310	0.0250	0.0313	0.0301	0.0314	Ave		0.0293				9.3		20.0			
Acrylonitrile	0.1181 0.1255	0.1222	0.1281	0.1254	0.1256	Ave		0.1241				2.8		20.0			
trans-1,2-Dichloroethene	0.4332 0.4658	0.4192	0.4531	0.4396	0.4597	Ave		0.4451			0.1000	4.0		20.0			
Methyl tert-butyl ether	0.8236 0.8305	0.7263	0.8018	0.7920	0.8238	Ave		0.7997			0.1000	4.9		20.0			
Hexane	0.3388 0.3851	0.3177	0.3437	0.3710	0.3907	Ave		0.3578				8.1		20.0			
1,1-Dichloroethane	0.5402 0.5652	0.5243	0.5659	0.5564	0.5697	Ave		0.5536			0.2000	3.2		20.0			
Vinyl acetate	0.3784 0.4974	0.3781	0.4477	0.4491	0.4815	Ave		0.4387				11.5		20.0			
2,2-Dichloropropane	0.2093 0.2395	0.1974	0.2246	0.2389	0.2510	Ave		0.2268				9.0		20.0			
cis-1,2-Dichloroethene	0.4743 0.4849	0.4668	0.4920	0.4699	0.4886	Ave		0.4794			0.1000	2.2		20.0			
2-Butanone (MEK)	0.1508 0.1552	0.1393	0.1388	0.1470	0.1592	Ave		0.1484			0.0100	5.6		20.0			
Chlorobromomethane	0.2661 0.2642	0.2938	0.2616	0.2701	0.2615	Ave		0.2696				4.6		20.0			
Tetrahydrofuran	0.0903 0.0898	0.0892	0.0934	0.0887	0.0899	Ave		0.0902				1.8		20.0			
Chloroform	0.4815 0.5310	0.5015	0.5333	0.5232	0.5323	Ave		0.5171			0.2000	4.1		20.0			
1,1,1-Trichloroethane	0.3363 0.3596	0.2926	0.3480	0.3544	0.3724	Ave		0.3439			0.1000	8.1		20.0			
Cyclohexane	0.4286 0.5333	0.4700	0.4740	0.5035	0.5299	Ave		0.4899			0.1000	8.2		20.0			
1,1-Dichloropropene	0.4223 0.4484	0.4000	0.4370	0.4395	0.4522	Ave		0.4332				4.5		20.0			
Carbon tetrachloride	0.2426 0.3478	0.2568	0.3048	0.3164	0.3416	Ave		0.3017			0.1000	14.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0048 0.0087	0.0046	0.0074	0.0073	0.0083	Lin1	-0.070	0.0083							0.9960		0.9900
Benzene	1.3655 1.4239	1.3310	1.4028	1.3828	1.4152	Ave		1.3869			0.5000	2.5		20.0			
1,2-Dichloroethane	0.3799 0.4037	0.3568	0.4100	0.3873	0.4069	Ave		0.3908			0.1000	5.2		20.0			
n-Heptane	+++++ 0.1879	0.7476	0.2166	0.1987	0.1940	Lin1	0.5549	0.1767							0.9990		0.9900
Trichloroethene	0.3369 0.3552	0.3575	0.3489	0.3421	0.3532	Ave		0.3490			0.1500	2.3		20.0			
Methylcyclohexane	0.4044 0.4857	0.4143	0.4244	0.4604	0.4774	Ave		0.4444			0.1000	7.8		20.0			
1,2-Dichloropropane	0.3108 0.3459	0.3005	0.3509	0.3385	0.3477	Ave		0.3324			0.1000	6.4		20.0			
Dibromomethane	0.2333 0.2211	0.1946	0.2240	0.2228	0.2234	Ave		0.2199				6.0		20.0			
1,4-Dioxane	+++++ 0.0041	0.0019	0.0037	0.0032	0.0037	Lin1	-0.049	0.0039							0.9930		0.9900
Dichlorobromomethane	0.3381 0.3950	0.3299	0.3717	0.3674	0.3851	Ave		0.3645			0.1500	7.1		20.0			
2-Chloroethyl vinyl ether	0.1131 0.1401	0.0993	0.1215	0.1256	0.1330	Ave		0.1221				11.9		20.0			
cis-1,3-Dichloropropene	0.3667 0.5663	0.3833	0.5045	0.5069	0.5488	Ave		0.4794			0.1500	17.6		20.0			
4-Methyl-2-pentanone (MIBK)	0.2894 0.2768	0.2436	0.2688	0.2683	0.2778	Ave		0.2708			0.0500	5.7		20.0			
Toluene	2.0480 1.9258	1.7897	1.9470	1.8851	1.9530	Ave		1.9248			0.4000	4.4		20.0			
trans-1,3-Dichloropropene	0.3721 0.6229	0.4055	0.5396	0.5651	0.6185	Lin1	-0.171	0.6116			0.1000				0.9980		0.9900
Ethyl methacrylate	0.4494 0.5770	0.4203	0.5309	0.5432	0.5842	Ave		0.5175				13.1		20.0			
1,1,2-Trichloroethane	0.3870 0.3781	0.3892	0.3805	0.3799	0.3820	Ave		0.3828			0.1000	1.1		20.0			
Tetrachloroethene	0.4069 0.4429	0.3989	0.4345	0.4265	0.4538	Ave		0.4272			0.1500	4.9		20.0			
1,3-Dichloropropane	0.6108 0.7292	0.7360	0.7395	0.7235	0.7318	Ave		0.7118				7.0		20.0			
2-Hexanone	0.2236 0.2785	0.2173	0.2442	0.2563	0.2893	Ave		0.2515			0.0500	11.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2610 0.3862	0.2876	0.3315	0.3494	0.3776	Ave		0.3322				14.9		20.0			
Ethylene Dibromide	0.3559 0.3752	0.3561	0.3754	0.3729	0.3887	Ave		0.3707				3.4		20.0			
Chlorobenzene	1.2636 1.2675	1.2242	1.2644	1.2368	1.2814	Ave		1.2563			0.3000	1.7		20.0			
1,1,1,2-Tetrachloroethane	0.3125 0.4030	0.3124	0.3651	0.3716	0.3961	Ave		0.3601				11.0		20.0			
Ethylbenzene	0.5804 0.6750	0.5503	0.6585	0.6500	0.6848	Ave		0.6332				8.7		20.0			
m-Xylene & p-Xylene	0.7334 0.8442	0.7084	0.8197	0.8178	0.8584	Ave		0.7970				7.7		20.0			
o-Xylene	0.7700 0.8411	0.7261	0.8165	0.8054	0.8545	Ave		0.8023				5.9		20.0			
Styrene	1.2532 1.4940	1.2081	1.4153	1.4240	1.4954	Ave		1.3817			0.3000	8.9		20.0			
Bromoform	+++++ 0.2534	0.1295	0.2001	0.2131	0.2471	Lin1	-0.158	0.2463			0.1000				0.9950		0.9900
Isopropylbenzene	1.6354 1.9795	1.6278	1.8819	1.8811	1.9883	Ave		1.8323			0.1000	8.8		20.0			
1,1,2,2-Tetrachloroethane	1.0080 0.9169	0.9231	0.9165	0.9466	0.9451	Ave		0.9427			0.3000	3.7		20.0			
Bromobenzene	0.9563 0.9487	0.8895	0.9650	0.9256	0.9585	Ave		0.9406				3.0		20.0			
1,2,3-Trichloropropane	0.3010 0.3043	0.2803	0.3217	0.3117	0.3130	Ave		0.3053				4.7		20.0			
trans-1,4-Dichloro-2-butene	0.0997 0.2140	0.0769	0.1379	0.1646	0.1937	Qua	-0.093	0.1481	0.0011338						1.0000		0.9900
N-Propylbenzene	0.8059 0.9528	0.8174	0.9052	0.9203	0.9591	Ave		0.8934				7.4		20.0			
2-Chlorotoluene	0.6908 0.8373	0.7954	0.8286	0.8369	0.8618	Ave		0.8085				7.6		20.0			
1,3,5-Trimethylbenzene	2.5646 2.8894	2.4958	2.7445	2.8008	2.8865	Ave		2.7303				6.1		20.0			
4-Chlorotoluene	0.8868 0.9055	0.8747	0.8883	0.8823	0.9172	Ave		0.8925				1.8		20.0			
tert-Butylbenzene	2.1890 2.3837	2.1160	2.3291	2.3301	2.3973	Ave		2.2909				4.9		20.0			
1,2,4-Trimethylbenzene	2.7829 3.0685	2.6833	2.9725	3.0191	3.1020	Ave		2.9381				5.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.1279 3.4067	2.9456	3.2539	3.2645	3.4405	Ave		3.2398				5.7		20.0			
1,3-Dichlorobenzene	1.6949 1.7509	1.5897	1.7326	1.7351	1.7754	Ave		1.7131			0.6000	3.8		20.0			
4-Isopropyltoluene	2.6277 3.0158	2.5390	2.8553	2.9315	3.0317	Ave		2.8335				7.3		20.0			
1,4-Dichlorobenzene	1.9156 1.8053	1.7885	1.8271	1.7914	1.8188	Ave		1.8245			0.5000	2.6		20.0			
n-Butylbenzene	2.1422 2.4570	2.0092	2.2766	2.3454	2.4687	Ave		2.2832				7.9		20.0			
1,2-Dichlorobenzene	1.7500 1.6992	1.5453	1.7047	1.6996	1.6947	Ave		1.6822			0.4000	4.2		20.0			
1,2-Dibromo-3-Chloropropane	0.1586 0.1963	0.1312	0.1751	0.1838	0.1849	Ave		0.1717			0.0500	13.7		20.0			
1,2,4-Trichlorobenzene	1.0232 1.0048	0.9198	0.9750	0.9843	0.9997	Ave		0.9845			0.2000	3.6		20.0			
Hexachlorobutadiene	0.3806 0.4187	0.3870	0.3865	0.4120	0.4151	Ave		0.4000				4.3		20.0			
Naphthalene	2.3168 2.7476	2.1622	2.5637	2.6125	2.7152	Ave		2.5196				9.2		20.0			
1,2,3-Trichlorobenzene	0.7700 0.8915	0.8371	0.8678	0.8716	0.8989	Ave		0.8562				5.5		20.0			
Dibromofluoromethane (Surr)	0.2719 0.2850	0.2713	0.2984	0.2826	0.2860	Ave		0.2825				3.6		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2948 0.3335	0.3199	0.3468	0.3381	0.3394	Ave		0.3288				5.7		20.0			
Toluene-d8 (Surr)	1.5231 1.6132	1.4413	1.6273	1.5894	1.6540	Ave		1.5747				5.0		20.0			
4-Bromofluorobenzene (Surr)	0.6141 0.6057	0.5506	0.5970	0.5845	0.6185	Ave		0.5951				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2774 0.3284	0.2911	0.3262	0.3261	0.3503	Ave		0.3166			0.1000	8.5		20.0			
Chloromethane	0.4243 0.3631	0.3916	0.3790	0.3773	0.3916	Ave		0.3878			0.1000	5.4		20.0			
Vinyl chloride	0.4087 0.3605	0.3465	0.3612	0.3711	0.3829	Ave		0.3718			0.1000	5.8		20.0			
Butadiene	0.2591 0.3141	0.2556	0.2954	0.3159	0.3217	Ave		0.2937				10.0		20.0			
Bromomethane	0.2462 0.2319	0.2336	0.2325	0.2219	0.2327	Ave		0.2332			0.0500	3.3		20.0			
Chloroethane	0.2194 0.2239	0.1843	0.2273	0.2249	0.2316	Ave		0.2186			0.0500	7.9		20.0			
Dichlorofluoromethane	0.6271 0.5827	0.5458	0.5988	0.5826	0.6147	Ave		0.5919				4.8		20.0			
Trichlorofluoromethane	0.3569 0.4333	0.3855	0.4259	0.4347	0.4592	Ave		0.4159			0.1000	9.0		20.0			
Ethyl ether	0.2759 0.2366	0.2379	0.2543	0.2398	0.2563	Ave		0.2501				6.1		20.0			
Acrolein	0.0384 0.0319	0.0312	0.0336	0.0327	0.0346	Ave		0.0337				7.6		20.0			
1,1-Dichloroethene	0.3099 0.2842	0.2647	0.2795	0.2888	0.2999	Ave		0.2878			0.1000	5.5		20.0			
Acetone	+++++ 0.0788	0.1310	0.0907	0.0866	0.0925	Lin1	0.1043	0.0835			0.0100				0.9940		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0921 0.1845	0.1404	0.1678	0.1754	0.1718	Lin1	-0.045	0.1793			0.0500				0.9990		0.9900
Iodomethane	0.4817 0.4537	0.4441	0.4516	0.4592	0.4825	Ave		0.4621				3.5		20.0			
Carbon disulfide	1.0384 0.9437	0.8950	0.9260	0.9397	0.9657	Ave		0.9514			0.1000	5.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2088 0.1945	0.1889	0.2169	0.1917	0.2068	Ave		0.2013				5.5		20.0			
Methyl acetate	0.1785 0.1542	0.1585	0.1607	0.1601	0.1623	Ave		0.1624			0.1000	5.1		20.0			
Methylene Chloride	+++++ 0.3133	0.8626	0.3413	0.3195	0.3388	Lin1	0.5333	0.3080			0.1000				0.9980		0.9900
2-Methyl-2-propanol	0.0315 0.0189	0.0213	0.0195	0.0198	0.0198	Lin1	0.0481	0.0192							0.9990		0.9900
Acrylonitrile	0.0953 0.0828	0.0857	0.0840	0.0837	0.0870	Ave		0.0864				5.4		20.0			
trans-1,2-Dichloroethene	0.3210 0.3162	0.2997	0.3159	0.3101	0.3333	Ave		0.3161			0.1000	3.5		20.0			
Methyl tert-butyl ether	0.8745 0.8162	0.7894	0.8187	0.8126	0.8733	Ave		0.8308			0.1000	4.2		20.0			
Hexane	0.2939 0.2948	0.2970	0.2722	0.2810	0.2994	Ave		0.2897				3.7		20.0			
1,1-Dichloroethane	0.5521 0.5175	0.4733	0.5210	0.5179	0.5529	Ave		0.5224			0.2000	5.6		20.0			
Vinyl acetate	0.4516 0.4009	0.3877	0.4037	0.3918	0.4198	Ave		0.4093				5.8		20.0			
2,2-Dichloropropane	0.3794 0.3532	0.3453	0.3576	0.3513	0.3722	Ave		0.3598				3.7		20.0			
2-Butanone (MEK)	0.1322 0.0875	0.0867	0.0946	0.0931	0.0992	Ave		0.0989			0.0100	17.1		20.0			
cis-1,2-Dichloroethene	0.3587 0.3537	0.3367	0.3467	0.3429	0.3721	Ave		0.3518			0.1000	3.6		20.0			
Chlorobromomethane	0.1291 0.1502	0.1431	0.1505	0.1467	0.1612	Ave		0.1468				7.2		20.0			
Tetrahydrofuran	+++++ 0.0556	0.0583	0.0569	0.0577	0.0598	Ave		0.0577				2.7		20.0			
Chloroform	0.5471 0.5284	0.5180	0.5158	0.5179	0.5629	Ave		0.5317			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.4142 0.4390	0.4248	0.4405	0.4404	0.4618	Ave		0.4368			0.1000	3.7		20.0			
Cyclohexane	0.4351 0.4326	0.4108	0.4111	0.4328	0.4318	Ave		0.4257			0.1000	2.7		20.0			
1,1-Dichloropropene	0.3936 0.4033	0.3495	0.3997	0.4002	0.4212	Ave		0.3946				6.1		20.0			
Carbon tetrachloride	0.3835 0.3598	0.3382	0.3513	0.3550	0.3753	Ave		0.3605			0.1000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0065 0.0062	0.0053	0.0067	0.0067	0.0067	Ave		0.0063				8.6		20.0			
Benzene	1.3724 1.2227	1.1219	1.2218	1.2050	1.2842	Ave		1.2380			0.5000	6.8		20.0			
1,2-Dichloroethane	0.3910 0.3932	0.3705	0.4014	0.3955	0.4214	Ave		0.3955			0.1000	4.2		20.0			
n-Heptane	+++++ 0.1323	0.7828	0.1743	0.1452	0.1373	Lin1	0.6515	0.1191							0.9980		0.9900
Trichloroethene	0.3404 0.3089	0.2946	0.3129	0.3013	0.3193	Ave		0.3129			0.1500	5.1		20.0			
Methylcyclohexane	0.3962 0.4020	0.4164	0.3842	0.3811	0.4140	Ave		0.3990			0.1000	3.7		20.0			
1,2-Dichloropropane	0.2659 0.2739	0.2677	0.2805	0.2770	0.2933	Ave		0.2764			0.1000	3.6		20.0			
Dibromomethane	0.1841 0.1580	0.1557	0.1636	0.1609	0.1664	Ave		0.1648				6.2		20.0			
1,4-Dioxane	0.0022 0.0024	0.0021	0.0025	0.0025	0.0025	Ave		0.0024				6.7		20.0			
Dichlorobromomethane	0.3832 0.3821	0.3551	0.3780	0.3743	0.4067	Ave		0.3799			0.1500	4.4		20.0			
2-Chloroethyl vinyl ether	0.1585 0.1357	0.1250	0.1429	0.1377	0.1476	Ave		0.1413				8.0		20.0			
cis-1,3-Dichloropropene	0.4496 0.4653	0.4268	0.4592	0.4537	0.4927	Ave		0.4579			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.2293 0.1854	0.2069	0.2005	0.2004	0.2030	Ave		0.2043			0.0500	7.0		20.0			
Toluene	1.5034 1.5997	1.3726	1.5269	1.5051	1.6319	Ave		1.5233			0.4000	6.0		20.0			
trans-1,3-Dichloropropene	0.4548 0.4818	0.4333	0.4674	0.4569	0.4997	Ave		0.4656			0.1000	5.0		20.0			
Ethyl methacrylate	0.3803 0.3740	0.3185	0.3922	0.3811	0.3898	Ave		0.3726				7.3		20.0			
1,1,2-Trichloroethane	0.2635 0.2687	0.2498	0.2723	0.2568	0.2811	Ave		0.2654			0.1000	4.2		20.0			
1,3-Dichloropropane	0.5065 0.4731	0.4472	0.4815	0.4621	0.4985	Ave		0.4781				4.6		20.0			
Tetrachloroethene	0.2542 0.2756	0.2173	0.2564	0.2573	0.2785	Ave		0.2566			0.1500	8.5		20.0			
2-Hexanone	0.2078 0.1535	0.1472	0.1718	0.1662	0.1729	Ave		0.1699			0.0500	12.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2932 0.3159	0.2671	0.2991	0.3025	0.3261	Ave		0.3007				6.8		20.0			
Ethylene Dibromide	0.2219 0.2665	0.2582	0.2665	0.2598	0.2776	Ave		0.2584				7.4		20.0			
Chlorobenzene	1.0529 0.9678	0.8811	0.9699	0.9300	1.0081	Ave		0.9683			0.3000	6.2		20.0			
1,1,1,2-Tetrachloroethane	0.3063 0.3556	0.3094	0.3415	0.3391	0.3631	Ave		0.3358				7.0		20.0			
Ethylbenzene	0.4877 0.5488	0.4527	0.5317	0.5213	0.5696	Ave		0.5186				8.2		20.0			
m-Xylene & p-Xylene	0.6411 0.6835	0.5972	0.6660	0.6424	0.7068	Ave		0.6562				5.8		20.0			
o-Xylene	0.6365 0.7126	0.5894	0.6714	0.6629	0.7222	Ave		0.6658				7.4		20.0			
Styrene	1.1100 1.1992	0.9655	1.1476	1.1234	1.2429	Ave		1.1314			0.3000	8.4		20.0			
Bromoform	+++++ 0.1965	0.1499	0.1847	0.1835	0.2004	Ave		0.1830			0.1000	10.9		20.0			
Isopropylbenzene	1.5431 1.7556	1.4920	1.6914	1.6192	1.7882	Ave		1.6482			0.1000	7.1		20.0			
1,1,2,2-Tetrachloroethane	0.6083 0.5668	0.5706	0.5874	0.5668	0.5898	Ave		0.5816			0.3000	2.8		20.0			
Bromobenzene	0.7214 0.6938	0.6411	0.6888	0.6748	0.7324	Ave		0.6921				4.7		20.0			
1,2,3-Trichloropropane	0.1987 0.1777	0.1412	0.1899	0.1788	0.1886	Ave		0.1791				11.2		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1649	0.1477	0.1661	0.1620	0.1691	Ave		0.1620				5.2		20.0			
N-Propylbenzene	0.6918 0.7372	0.6194	0.7268	0.7170	0.7728	Ave		0.7108				7.3		20.0			
2-Chlorotoluene	0.5891 0.6524	0.6072	0.6547	0.6350	0.6848	Ave		0.6372				5.4		20.0			
1,3,5-Trimethylbenzene	2.0957 2.3598	2.0166	2.3008	2.2541	2.4702	Ave		2.2495				7.5		20.0			
4-Chlorotoluene	0.6633 0.6930	0.6450	0.6920	0.6739	0.7178	Ave		0.6808				3.8		20.0			
tert-Butylbenzene	1.7635 1.9140	1.6247	1.8363	1.8095	2.0418	Ave		1.8316				7.7		20.0			
1,2,4-Trimethylbenzene	2.3247 2.5091	2.1504	2.4221	2.3653	2.6095	Ave		2.3968				6.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.5150 2.6729	2.2201	2.4881	2.5159	2.6914	Ave		2.5172				6.7		20.0			
1,3-Dichlorobenzene	1.4670 1.3679	1.2338	1.3477	1.3117	1.4211	Ave		1.3582			0.6000	6.0		20.0			
4-Isopropyltoluene	2.1129 2.3459	1.8695	2.2357	2.2077	2.3896	Ave		2.1935				8.5		20.0			
1,4-Dichlorobenzene	1.4955 1.4123	1.3794	1.3886	1.3663	1.4845	Ave		1.4211			0.5000	3.9		20.0			
n-Butylbenzene	1.7339 1.9743	1.5905	1.8048	1.8379	1.9843	Ave		1.8210				8.2		20.0			
1,2-Dichlorobenzene	1.2562 1.3098	1.1778	1.2902	1.2925	1.3695	Ave		1.2827			0.4000	4.9		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1052	0.0364	0.0995	0.1035	0.1060	Lin1	-0.070	0.1069			0.0500				1.0000		0.9900
1,2,4-Trichlorobenzene	0.6877 0.6736	0.5503	0.6622	0.6682	0.6940	Ave		0.6560			0.2000	8.1		20.0			
Hexachlorobutadiene	0.2877 0.2599	0.2632	0.2675	0.2544	0.2579	Ave		0.2651				4.5		20.0			
Naphthalene	1.6027 1.5994	1.4701	1.5619	1.6108	1.6507	Ave		1.5826				3.9		20.0			
1,2,3-Trichlorobenzene	0.6150 0.5347	0.5152	0.5434	0.5219	0.5373	Ave		0.5446				6.6		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2685	0.2395	0.2729	0.2637	0.2857	Ave		0.2661				6.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3228	0.3015	0.3260	0.3254	0.3428	Ave		0.3237				4.5		20.0			
Toluene-d8 (Surr)	+++++ 1.3214	1.1456	1.2974	1.2474	1.3716	Ave		1.2767				6.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5071	0.4952	0.5030	0.4775	0.5277	Ave		0.5021				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-253710/8	UX959470.D
Level 2	STD8260 240-253710/9	UX959471.D
Level 3	STD8260 240-253710/10	UX959472.D
Level 4	ICIS 240-253710/11	UX959473.D
Level 5	STD8260 240-253710/12	UX959474.D
Level 6	STD8260 240-253710/13	UX959475.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2740 0.3110	0.2716	0.2989	0.2939	0.3264	Ave		0.2960			0.1000	7.2		20.0			
Chloromethane	0.3760 0.3337	0.3407	0.3694	0.3368	0.3588	Ave		0.3526			0.1000	5.1		20.0			
Vinyl chloride	0.3009 0.3414	0.3318	0.3722	0.3407	0.3619	Ave		0.3415			0.1000	7.3		20.0			
Butadiene	+++++ 0.3268	0.2168	0.2797	0.3026	0.3283	Ave		0.2909				15.8		20.0			
Bromomethane	0.1937 0.2501	0.1952	0.2199	0.2077	0.2234	Ave		0.2150			0.0500	9.8		20.0			
Chloroethane	0.1543 0.2476	0.1912	0.2494	0.2301	0.2469	Ave		0.2199			0.0500	17.7		20.0			
Dichlorofluoromethane	0.3725 0.5509	0.4178	0.5768	0.5402	0.5830	Ave		0.5069				17.6		20.0			
Trichlorofluoromethane	0.3107 0.4549	0.3855	0.4467	0.4326	0.4727	Ave		0.4172			0.1000	14.4		20.0			
Ethyl ether	0.1906 0.2453	0.2082	0.2425	0.2372	0.2480	Ave		0.2286				10.3		20.0			
Acrolein	0.0379 0.0356	0.0299	0.0323	0.0329	0.0360	Ave		0.0341				8.6		20.0			
1,1-Dichloroethene	0.3555 0.5265	0.4280	0.5369	0.4991	0.5281	Ave		0.4790			0.1000	15.1		20.0			
Acetone	+++++ 0.1056	0.1566	0.1192	0.1039	0.0988	Lin1	0.1173	0.1029			0.0100				0.9980		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.2848	0.1673	0.2782	0.2606	0.2864	Ave		0.2555			0.0500	19.7		20.0			
Iodomethane	0.3928 0.4627	0.4110	0.4526	0.4319	0.4610	Ave		0.4353				6.6		20.0			
Carbon disulfide	0.7849 0.8581	1.0236	0.8141	0.7260	0.8171	Ave		0.8373			0.1000	12.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.3504 0.3857	0.3632	0.3389	0.3492	0.3769	Ave		0.3607				5.0		20.0			
Methyl acetate	0.2313 0.2140	0.2276	0.2155	0.2066	0.2192	Ave		0.2190			0.1000	4.2		20.0			
Methylene Chloride	+++++ 0.3576	0.4410	0.3959	0.3491	0.3706	Ave		0.3828			0.1000	9.7		20.0			
2-Methyl-2-propanol	0.0247 0.0298	0.0214	0.0271	0.0260	0.0285	Ave		0.0262				11.3		20.0			
Acrylonitrile	0.0917 0.1045	0.0887	0.1017	0.1002	0.1038	Ave		0.0984				6.7		20.0			
trans-1,2-Dichloroethene	0.3245 0.3491	0.3572	0.3524	0.3424	0.3605	Ave		0.3477			0.1000	3.7		20.0			
Methyl tert-butyl ether	0.7869 0.8678	0.7533	0.8472	0.8294	0.8677	Ave		0.8254			0.1000	5.6		20.0			
Hexane	0.2438 0.2902	0.2349	0.2662	0.2595	0.2778	Ave		0.2621				7.9		20.0			
1,1-Dichloroethane	0.4042 0.4522	0.4181	0.4501	0.4390	0.4558	Ave		0.4365			0.2000	4.8		20.0			
Vinyl acetate	0.4045 0.4353	0.4208	0.3889	0.3960	0.4425	Ave		0.4147				5.2		20.0			
cis-1,2-Dichloroethene	0.3148 0.3690	0.4060	0.3712	0.3562	0.3704	Ave		0.3646			0.1000	8.1		20.0			
2-Butanone (MEK)	0.1329 0.1042	0.1093	0.1263	0.1044	0.1134	Ave		0.1151			0.0100	10.4		20.0			
2,2-Dichloropropane	0.1901 0.2047	0.1713	0.2006	0.1957	0.2025	Ave		0.1941				6.4		20.0			
Chlorobromomethane	0.2096 0.2081	0.1998	0.2125	0.2003	0.2083	Ave		0.2064				2.5		20.0			
Tetrahydrofuran	0.0720 0.0795	0.0759	0.0825	0.0775	0.0815	Ave		0.0782				4.9		20.0			
Chloroform	0.3597 0.4300	0.3989	0.4331	0.4234	0.4333	Ave		0.4131			0.2000	7.1		20.0			
1,1,1-Trichloroethane	0.2584 0.3174	0.2802	0.3075	0.3090	0.3145	Ave		0.2978			0.1000	7.9		20.0			
Cyclohexane	0.2974 0.3060	0.2183	0.2760	0.2912	0.3026	Ave		0.2819			0.1000	11.7		20.0			
1,1-Dichloropropene	0.3395 0.3666	0.3387	0.3505	0.3501	0.3605	Ave		0.3510				3.2		20.0			
Carbon tetrachloride	0.2613 0.3093	0.2264	0.2724	0.2772	0.3000	Ave		0.2744			0.1000	10.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0084 0.0093	0.0074	0.0078	0.0085	0.0097	Ave		0.0085				10.1		20.0			
Benzene	0.9773 1.0660	1.0220	1.0742	1.0397	1.0682	Ave		1.0412			0.5000	3.6		20.0			
1,2-Dichloroethane	0.3961 0.3697	0.3827	0.3803	0.3625	0.3771	Ave		0.3781			0.1000	3.1		20.0			
n-Heptane	+++++ 0.1709	0.2884	0.1629	0.1584	0.1591	Lin1	0.1055	0.1629							0.9970		0.9900
Trichloroethene	0.2541 0.2829	0.2997	0.2875	0.2799	0.2864	Ave		0.2817			0.1500	5.4		20.0			
Methylcyclohexane	0.2846 0.3569	0.2848	0.3042	0.3184	0.3339	Ave		0.3138			0.1000	9.1		20.0			
1,2-Dichloropropane	0.2495 0.2481	0.1942	0.2495	0.2437	0.2470	Ave		0.2387			0.1000	9.2		20.0			
Dibromomethane	0.1552 0.1739	0.1655	0.1743	0.1666	0.1769	Ave		0.1687				4.7		20.0			
1,4-Dioxane	+++++ 0.0032	0.0024	0.0029	0.0030	0.0035	Ave		0.0030				13.8		20.0			
Dichlorobromomethane	0.3054 0.3294	0.2754	0.3271	0.3062	0.3291	Ave		0.3121			0.1500	6.8		20.0			
2-Chloroethyl vinyl ether	0.1560 0.1849	0.1341	0.1797	0.1726	0.1870	Ave		0.1691				12.1		20.0			
cis-1,3-Dichloropropene	0.2523 0.4313	0.2934	0.3728	0.3872	0.4186	Ave		0.3593			0.1500	19.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2026 0.2453	0.2461	0.2500	0.2299	0.2496	Ave		0.2373			0.0500	7.8		20.0			
Toluene	1.4206 1.4774	1.4725	1.5025	1.4923	1.5137	Ave		1.4798			0.4000	2.2		20.0			
trans-1,3-Dichloropropene	0.2796 0.5131	0.2726	0.4215	0.4591	0.4920	Lin1	-0.174	0.4989			0.1000				0.9970		0.9900
Ethyl methacrylate	0.3130 0.4707	0.3237	0.4263	0.4409	0.4731	Ave		0.4079				17.6		20.0			
1,1,2-Trichloroethane	0.3081 0.2999	0.2772	0.3080	0.3024	0.3068	Ave		0.3004			0.1000	3.9		20.0			
1,3-Dichloropropane	0.6075 0.5716	0.5788	0.5768	0.5793	0.5784	Ave		0.5821				2.2		20.0			
Tetrachloroethene	0.3586 0.3405	0.3383	0.3436	0.3387	0.3416	Ave		0.3436			0.1500	2.2		20.0			
2-Hexanone	0.2018 0.2018	0.1934	0.2073	0.1915	0.2197	Ave		0.2026			0.0500	5.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.1404 0.3065	0.1885	0.2484	0.2756	0.2950	Lin1	-0.105	0.2984							0.9980		0.9900
Ethylene Dibromide	0.2818 0.3054	0.3040	0.3311	0.3104	0.3187	Ave		0.3086				5.4		20.0			
Chlorobenzene	0.9750 1.0017	0.9551	1.0118	1.0056	1.0282	Ave		0.9962			0.3000	2.7		20.0			
1,1,1,2-Tetrachloroethane	0.2813 0.3318	0.2359	0.3172	0.3274	0.3332	Ave		0.3045				12.7		20.0			
Ethylbenzene	0.4404 0.5339	0.4911	0.5201	0.5113	0.5358	Ave		0.5054				7.1		20.0			
m-Xylene & p-Xylene	0.5992 0.6588	0.5788	0.6697	0.6570	0.6729	Ave		0.6394				6.3		20.0			
o-Xylene	0.5545 0.6792	0.5872	0.6405	0.6521	0.6814	Ave		0.6325				8.1		20.0			
Styrene	0.8056 1.1519	0.9111	1.1233	1.1040	1.1602	Ave		1.0427			0.3000	14.2		20.0			
Bromoform	+++++ 0.1766	0.0859	0.1170	0.1416	0.1675	Lin1	-0.133	0.1694			0.1000				0.9910		0.9900
Isopropylbenzene	1.2431 1.5845	1.3447	1.5455	1.5475	1.6237	Ave		1.4815			0.1000	10.2		20.0			
1,1,2,2-Tetrachloroethane	0.7108 0.7699	0.7110	0.7430	0.7870	0.8001	Ave		0.7536			0.3000	5.1		20.0			
Bromobenzene	0.8207 0.7612	0.6939	0.7347	0.7577	0.7503	Ave		0.7530				5.5		20.0			
1,2,3-Trichloropropane	0.2485 0.2711	0.3099	0.2817	0.2863	0.2921	Ave		0.2816				7.4		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1738	0.0625	0.0690	0.1124	0.1260	Ave		0.1087				41.8	*	20.0			
N-Propylbenzene	0.6363 0.8060	0.6257	0.7201	0.7721	0.8051	Ave		0.7275				11.2		20.0			
2-Chlorotoluene	0.7681 0.7075	0.6942	0.6721	0.7044	0.7140	Ave		0.7100				4.5		20.0			
1,3,5-Trimethylbenzene	1.8942 2.3715	2.1949	2.1735	2.3146	2.3769	Ave		2.2209				8.2		20.0			
4-Chlorotoluene	0.5507 0.7519	0.7443	0.6934	0.7605	0.7709	Ave		0.7119				11.7		20.0			
tert-Butylbenzene	2.0342 2.0192	1.6703	2.0785	2.1994	2.0101	Ave		2.0019				8.8		20.0			
1,2,4-Trimethylbenzene	2.1059 2.4987	2.1501	2.3475	2.3966	2.5422	Ave		2.3402				7.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	0.4930 0.6053	0.4674	0.5469	0.5678	0.6023	Ave		0.5471				10.4		20.0			
1,3-Dichlorobenzene	1.4747 1.4345	1.3741	1.3942	1.4360	1.4594	Ave		1.4288			0.6000	2.7		20.0			
4-Isopropyltoluene	1.9791 2.4964	1.8194	2.2548	2.3826	2.4732	Ave		2.2342				12.4		20.0			
1,4-Dichlorobenzene	1.5384 1.4732	1.4645	1.4443	1.4810	1.5290	Ave		1.4884			0.5000	2.5		20.0			
n-Butylbenzene	1.9787 2.0882	1.7947	1.8431	1.9428	2.0350	Ave		1.9471				5.8		20.0			
1,2-Dichlorobenzene	1.4745 1.4141	1.3672	1.4031	1.4539	1.4554	Ave		1.4280			0.4000	2.8		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1722	0.0650	0.1512	0.1567	0.1716	Lin1	-0.120	0.1719			0.0500				0.9990		0.9900
1,2,4-Trichlorobenzene	0.8436 0.9146	0.6838	0.8064	0.8665	0.8854	Ave		0.8334			0.2000	9.8		20.0			
Hexachlorobutadiene	0.4432 0.3312	0.3109	0.2943	0.3070	0.3063	Ave		0.3322				16.8		20.0			
Naphthalene	2.4514 2.7719	2.3780	2.4048	2.6107	2.6834	Ave		2.5500				6.4		20.0			
1,2,3-Trichlorobenzene	0.9107 0.8620	0.7802	0.7873	0.8217	0.8212	Ave		0.8305				5.9		20.0			
Dibromofluoromethane (Surr)	0.1929 0.2274	0.2019	0.2216	0.2329	0.2400	Ave		0.2195				8.4		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2494 0.2961	0.2965	0.3087	0.2986	0.3032	Ave		0.2921				7.3		20.0			
Toluene-d8 (Surr)	1.2398 1.2745	1.2319	1.2744	1.2585	1.3026	Ave		1.2636				2.1		20.0			
4-Bromofluorobenzene (Surr)	0.3856 0.4810	0.4277	0.4870	0.4711	0.5020	Ave		0.4591				9.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 16:20 Calibration End Date: 10/31/2016 18:20 Calibration ID: 36880

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-253710/15	UX959477.D
Level 2	STDA9 240-253710/16	UX959478.D
Level 3	STDA9 240-253710/17	UX959479.D
Level 4	STDA9 240-253710/18	UX959480.D
Level 5	STDA9 240-253710/19	UX959481.D
Level 6	STDA9 240-253710/20	UX959482.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0462 0.0341	0.0380	0.0362	0.0374	0.0347	Ave		0.0378				11.6		20.0			
Isopropyl ether	0.2411 0.2427	0.2510	0.2287	0.2353	0.2432	Ave		0.2403				3.2		20.0			
2-Chloro-1,3-butadiene	0.3500 0.3971	0.3535	0.3964	0.3741	0.3925	Ave		0.3773				5.7		20.0			
Tert-butyl ethyl ether	0.7493 0.8180	0.7652	0.8130	0.7715	0.7909	Ave		0.7846				3.5		20.0			
Ethyl acetate	0.2552 0.2432	0.2676	0.2501	0.2379	0.2457	Ave		0.2500				4.2		20.0			
Propionitrile	0.0334 0.0392	0.0406	0.0396	0.0386	0.0402	Ave		0.0386				6.8		20.0			
Methacrylonitrile	0.1529 0.1719	0.1571	0.1673	0.1623	0.1710	Ave		0.1638				4.7		20.0			
Tert-amyl methyl ether	0.6988 0.8308	0.7203	0.7975	0.7951	0.8047	Ave		0.7745				6.8		20.0			
n-Butanol	0.0061 0.0075	0.0052	0.0065	0.0070	0.0078	Ave		0.0067				14.5		20.0			
Ethyl acrylate	0.3101 0.3442	0.2921	0.3205	0.3303	0.3499	Ave		0.3245				6.7		20.0			
Methyl methacrylate	0.2051 0.2483	0.2053	0.2285	0.2360	0.2479	Ave		0.2285				8.6		20.0			
2-Nitropropane	0.0404 0.0550	0.0464	0.0421	0.0448	0.0501	Ave		0.0465				11.6		20.0			
n-Butyl acetate	0.4390 0.4832	0.3631	0.4272	0.4553	0.4863	Ave		0.4424				10.3		20.0			
1-Chlorohexane	+++++ 0.4359	0.3811	0.4213	0.4176	0.4335	Ave		0.4179				5.3		20.0			
Cyclohexanone	0.0147 0.0208	0.0163	0.0189	0.0226	0.0235	Ave		0.0195				17.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 16:20 Calibration End Date: 10/31/2016 18:20 Calibration ID: 36880

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.2215 0.2552	0.2410	0.3068	0.2335	0.2853	Lin1	-0.025	0.2640							0.9940		0.9900
1,2,3-Trimethylbenzene	2.5280 2.7740	2.3307	2.6593	2.6053	2.7573	Ave		2.6091				6.3		20.0			
Benzyl chloride	+++++ 0.3104	0.1551	0.2171	0.2455	0.2956	Lin1	-0.225	0.2981							0.9920		0.9900
1,3,5-Trichlorobenzene	0.8848 0.9975	0.8091	0.9600	0.9942	0.9772	Ave		0.9371				8.0		20.0			
2-Methylnaphthalene	0.7810 1.5380	0.7327	1.1797	1.4144	1.4289	Lin1	-1.148	1.4842							0.9960		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-272388/15 Calibration Date: 03/29/2017 14:47

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1055.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2379	0.1992		0.0100	0.0120	-16.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2138		0.00929	0.0120	-22.3*	20.0
Toluene-d8 (Surr)	Ave	1.444	1.204		0.00997	0.0120	-16.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.4028		0.0100	0.0120	-16.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-272388/15 Calibration Date: 03/29/2017 14:47

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 12:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 14:24

Lab File ID: UXJ1055.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0181	0.0162		0.0895	0.100	-10.5	20.0
Isopropyl ether	Ave	0.2617	0.2631		0.0101	0.0100	0.5	20.0
2-Chloro-1,3-butadiene	Ave	0.4583	0.4307		0.00940	0.0100	-6.0	20.0
Tert-butyl ethyl ether	Ave	0.8371	0.7949		0.00950	0.0100	-5.0	20.0
Ethyl acetate	Ave	0.1936	0.1718		0.0178	0.0200	-11.2	50.0
Propionitrile	Ave	0.0241	0.0220		0.0913	0.100	-8.7	20.0
Methacrylonitrile	Ave	0.1333	0.1221		0.0916	0.100	-8.4	20.0
Tert-amyl methyl ether	Ave	0.7539	0.7317		0.00970	0.0100	-3.0	20.0
n-Butanol	Ave	0.0051	0.0033		0.162	0.250	-35.1*	20.0
Ethyl acrylate	Ave	0.2937	0.2711		0.00923	0.0100	-7.7	20.0
Methyl methacrylate	Ave	0.2018	0.1859		0.0184	0.0200	-7.8	20.0
2-Nitropropane	Ave	0.0491	0.0453		0.0185	0.0200	-7.7	20.0
n-Butyl acetate	Ave	0.3308	0.2978		0.00900	0.0100	-10.0	30.0
1-Chlorohexane	Ave	0.4626	0.4255		0.00920	0.0100	-8.0	20.0
Cyclohexanone	Lin1		0.0086		0.0665	0.100	-33.5*	20.0
Pentachloroethane	Lin1		0.1984		0.0192	0.0200	-4.2	20.0
1,2,3-Trimethylbenzene	Ave	2.527	2.416		0.00956	0.0100	-4.4	20.0
Benzyl chloride	Lin1		0.2778		0.00855	0.0100	-14.5	20.0
1,3,5-Trichlorobenzene	Ave	0.8021	0.7284		0.00908	0.0100	-9.2	20.0
2-Methylnaphthalene	Ave	0.9439	0.6804		0.0144	0.0200	-27.9*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1724	0.1520	0.1000	0.00882	0.0100	-11.8	20.0
Chloromethane	Ave	0.2203	0.1934	0.1000	0.00878	0.0100	-12.2	20.0
Vinyl chloride	Ave	0.2072	0.1812	0.1000	0.00875	0.0100	-12.5	20.0
Butadiene	Ave	0.2001	0.1707		0.00853	0.0100	-14.7	30.0
Bromomethane	Lin1		0.0803	0.0500	0.00808	0.0100	-19.2	20.0
Chloroethane	Ave	0.1010	0.0911	0.0500	0.00903	0.0100	-9.7	20.0
Dichlorofluoromethane	Ave	0.2987	0.2255		0.00755	0.0100	-24.5*	20.0
Trichlorofluoromethane	Ave	0.2202	0.1985	0.1000	0.00901	0.0100	-9.9	20.0
Ethyl ether	Ave	0.2318	0.2049		0.00884	0.0100	-11.6	20.0
Acrolein	Ave	0.0272	0.0288		0.0529	0.0500	5.7	50.0
1,1-Dichloroethene	Ave	0.2290	0.1927	0.1000	0.00842	0.0100	-15.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1426	0.1116	0.0500	0.00783	0.0100	-21.7*	20.0
Acetone	Ave	0.0728	0.0341	0.0100	0.00937	0.0200	-53.2*	50.0
Iodomethane	Ave	0.3163	0.2412		0.00763	0.0100	-23.7*	20.0
Carbon disulfide	Ave	0.6282	0.5005	0.1000	0.00797	0.0100	-20.3*	20.0
3-Chloro-1-propene	Ave	0.1930	0.1810		0.00938	0.0100	-6.2	20.0
Methyl acetate	Ave	0.1490	0.1241	0.1000	0.0416	0.0500	-16.8	20.0
Methylene Chloride	Lin1		0.2495	0.1000	0.00949	0.0100	-5.1	50.0
2-Methyl-2-propanol	Ave	0.0135	0.0092		0.0686	0.100	-31.4	50.0
Acrylonitrile	Ave	0.0768	0.0647		0.0842	0.100	-15.8	20.0
Methyl tert-butyl ether	Ave	0.7070	0.6302	0.1000	0.00891	0.0100	-10.9	20.0
trans-1,2-Dichloroethene	Ave	0.2946	0.2591	0.1000	0.00879	0.0100	-12.1	20.0
Hexane	Ave	0.0659	0.0491		0.00744	0.0100	-25.6*	20.0
1,1-Dichloroethane	Ave	0.4715	0.4226	0.2000	0.00896	0.0100	-10.4	20.0
Vinyl acetate	Ave	0.4379	0.3731		0.00852	0.0100	-14.8	50.0
2,2-Dichloropropane	Ave	0.2768	0.2325		0.00840	0.0100	-16.0	20.0
2-Butanone (MEK)	Ave	0.0952	0.0659	0.0100	0.0138	0.0200	-30.8*	20.0
cis-1,2-Dichloroethene	Ave	0.3043	0.2828	0.1000	0.00929	0.0100	-7.1	20.0
Chlorobromomethane	Ave	0.1410	0.1239		0.00879	0.0100	-12.1	20.0
Tetrahydrofuran	Ave	0.0558	0.0443		0.0159	0.0200	-20.6*	20.0
Chloroform	Ave	0.4423	0.3996	0.2000	0.00903	0.0100	-9.7	20.0
1,1,1-Trichloroethane	Ave	0.3308	0.2958	0.1000	0.00894	0.0100	-10.6	20.0
Cyclohexane	Ave	0.3679	0.3157	0.1000	0.00858	0.0100	-14.2	20.0
1,1-Dichloropropene	Ave	0.3588	0.3320		0.00925	0.0100	-7.5	20.0
Carbon tetrachloride	Ave	0.2829	0.2512	0.1000	0.00888	0.0100	-11.2	20.0
Isobutyl alcohol	Ave	0.0060	0.0043		0.179	0.250	-28.4*	20.0
1,2-Dichloroethane	Ave	0.3070	0.2757	0.1000	0.00898	0.0100	-10.2	20.0
Benzene	Ave	1.192	1.080	0.5000	0.00906	0.0100	-9.4	20.0
n-Heptane	Ave	0.0603	0.0475		0.00787	0.0100	-21.3*	20.0
Trichloroethene	Ave	0.2980	0.2656	0.1500	0.00891	0.0100	-10.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3653	0.2928	0.1000	0.00802	0.0100	-19.8	20.0
1,2-Dichloropropane	Ave	0.2768	0.2561	0.1000	0.00925	0.0100	-7.5	20.0
Dibromomethane	Ave	0.1447	0.1263		0.00873	0.0100	-12.7	20.0
1,4-Dioxane	Qua		0.0008		0.0990	0.200	-50.5*	50.0
Dichlorobromomethane	Ave	0.3203	0.2954	0.1500	0.00922	0.0100	-7.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1542	0.1392		0.00903	0.0100	-9.7	20.0
cis-1,3-Dichloropropene	Ave	0.4213	0.4040	0.1500	0.00959	0.0100	-4.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1937	0.1614	0.0500	0.0167	0.0200	-16.7	20.0
Toluene	Ave	1.702	1.557	0.4000	0.00915	0.0100	-8.5	20.0
trans-1,3-Dichloropropene	Ave	0.4875	0.4476	0.1000	0.00918	0.0100	-8.2	20.0
Ethyl methacrylate	Ave	0.4728	0.4224		0.00893	0.0100	-10.7	20.0
1,1,2-Trichloroethane	Ave	0.2936	0.2688	0.1000	0.00916	0.0100	-8.4	20.0
Tetrachloroethene	Ave	0.3204	0.2926	0.1500	0.00913	0.0100	-8.7	20.0
1,3-Dichloropropane	Ave	0.5391	0.4881		0.00905	0.0100	-9.5	20.0
2-Hexanone	Ave	0.1913	0.1463	0.0500	0.0153	0.0200	-23.5*	20.0
Chlorodibromomethane	Ave	0.2886	0.2708		0.00938	0.0100	-6.2	20.0
Ethylene Dibromide	Ave	0.2950	0.2590		0.00878	0.0100	-12.2	20.0
Chlorobenzene	Ave	1.030	0.9464	0.3000	0.00919	0.0100	-8.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3429	0.3303		0.00963	0.0100	-3.7	20.0
Ethylbenzene	Ave	0.5585	0.5055		0.00905	0.0100	-9.5	20.0
m-Xylene & p-Xylene	Ave	0.6874	0.6356		0.00925	0.0100	-7.5	20.0
o-Xylene	Ave	0.6575	0.6107		0.00929	0.0100	-7.1	20.0
Styrene	Ave	1.178	1.093	0.3000	0.00928	0.0100	-7.2	20.0
Bromoform	Lin1		0.1552	0.1000	0.00818	0.0100	-18.2	20.0
Isopropylbenzene	Ave	1.565	1.437	0.1000	0.00918	0.0100	-8.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6779	0.6005	0.3000	0.00886	0.0100	-11.4	20.0
Bromobenzene	Ave	0.8986	0.8270		0.00920	0.0100	-8.0	20.0
1,2,3-Trichloropropane	Ave	0.2291	0.1944		0.00848	0.0100	-15.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1153	0.0968		0.00839	0.0100	-16.1	20.0
N-Propylbenzene	Ave	0.8597	0.7745		0.00901	0.0100	-9.9	20.0
2-Chlorotoluene	Ave	0.7888	0.7065		0.00896	0.0100	-10.4	20.0
1,3,5-Trimethylbenzene	Ave	2.442	2.239		0.00917	0.0100	-8.3	20.0
4-Chlorotoluene	Ave	0.8109	0.7310		0.00901	0.0100	-9.9	20.0
tert-Butylbenzene	Ave	2.077	1.870		0.00900	0.0100	-10.0	20.0
1,2,4-Trimethylbenzene	Ave	2.524	2.289		0.00907	0.0100	-9.3	20.0
sec-Butylbenzene	Ave	2.678	2.378		0.00888	0.0100	-11.2	20.0
1,3-Dichlorobenzene	Ave	1.466	1.342	0.6000	0.00916	0.0100	-8.4	20.0
4-Isopropyltoluene	Ave	2.306	2.072		0.00898	0.0100	-10.2	20.0
1,4-Dichlorobenzene	Ave	1.514	1.395	0.5000	0.00921	0.0100	-7.9	20.0
n-Butylbenzene	Ave	1.817	1.579		0.00869	0.0100	-13.1	20.0
1,2-Dichlorobenzene	Ave	1.344	1.222	0.4000	0.00909	0.0100	-9.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-272388/14 Calibration Date: 03/29/2017 15:09

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1056.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1151	0.1007	0.0500	0.00874	0.0100	-12.6	50.0
1,2,4-Trichlorobenzene	Ave	0.7024	0.5999	0.2000	0.00854	0.0100	-14.6	50.0
Hexachlorobutadiene	Ave	0.3161	0.2508		0.00793	0.0100	-20.7*	20.0
Naphthalene	Ave	1.583	1.363		0.00861	0.0100	-13.9	50.0
1,2,3-Trichlorobenzene	Ave	0.5891	0.5323		0.00904	0.0100	-9.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2379	0.1846		0.00928	0.0120	-22.4*	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2096		0.00911	0.0120	-23.9*	20.0
Toluene-d8 (Surr)	Ave	1.444	1.157		0.00958	0.0120	-19.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.3742		0.00933	0.0120	-22.0*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1724	0.2005	0.1000	0.0116	0.0100	16.3	20.0
Chloromethane	Ave	0.2203	0.2078	0.1000	0.00943	0.0100	-5.7	20.0
Vinyl chloride	Ave	0.2072	0.1893	0.1000	0.00914	0.0100	-8.6	20.0
Butadiene	Ave	0.2001	0.1618		0.00808	0.0100	-19.2	20.0
Bromomethane	Lin1		0.0773	0.0500	0.00776	0.0100	-22.4*	20.0
Chloroethane	Ave	0.1010	0.0848	0.0500	0.00840	0.0100	-16.0	20.0
Dichlorofluoromethane	Ave	0.2987	0.2453		0.00821	0.0100	-17.9	20.0
Trichlorofluoromethane	Ave	0.2202	0.2168	0.1000	0.00984	0.0100	-1.6	20.0
Ethyl ether	Ave	0.2318	0.2093		0.00903	0.0100	-9.7	20.0
Acrolein	Ave	0.0272	0.0246		0.0451	0.0500	-9.8	50.0
1,1-Dichloroethene	Ave	0.2290	0.2173	0.1000	0.00949	0.0100	-5.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.1426	0.1252	0.0500	0.00878	0.0100	-12.2	20.0
Acetone	Ave	0.0728	0.0507	0.0100	0.0139	0.0200	-30.3	50.0
Iodomethane	Ave	0.3163	0.2760		0.00873	0.0100	-12.7	20.0
Carbon disulfide	Ave	0.6282	0.5479	0.1000	0.00872	0.0100	-12.8	20.0
3-Chloro-1-propene	Ave	0.1930	0.1668		0.00864	0.0100	-13.6	20.0
Methyl acetate	Ave	0.1490	0.1307	0.1000	0.0439	0.0500	-12.3	20.0
Methylene Chloride	Lin1		0.2616	0.1000	0.00998	0.0100	-0.2	50.0
2-Methyl-2-propanol	Ave	0.0135	0.0110		0.0814	0.100	-18.6	50.0
Acrylonitrile	Ave	0.0768	0.0669		0.0872	0.100	-12.8	20.0
Methyl tert-butyl ether	Ave	0.7070	0.6705	0.1000	0.00948	0.0100	-5.2	20.0
trans-1,2-Dichloroethene	Ave	0.2946	0.2762	0.1000	0.00938	0.0100	-6.2	20.0
Hexane	Ave	0.0659	0.0605		0.00918	0.0100	-8.2	20.0
1,1-Dichloroethane	Ave	0.4715	0.4402	0.2000	0.00934	0.0100	-6.6	20.0
Vinyl acetate	Ave	0.4379	0.3709		0.00847	0.0100	-15.3	50.0
2,2-Dichloropropane	Ave	0.2768	0.2419		0.00874	0.0100	-12.6	20.0
2-Butanone (MEK)	Ave	0.0952	0.0758	0.0100	0.0159	0.0200	-20.4*	20.0
cis-1,2-Dichloroethene	Ave	0.3043	0.3084	0.1000	0.0101	0.0100	1.3	20.0
Chlorobromomethane	Ave	0.1410	0.1388		0.00984	0.0100	-1.6	20.0
Tetrahydrofuran	Ave	0.0558	0.0466		0.0167	0.0200	-16.4	20.0
Chloroform	Ave	0.4423	0.4335	0.2000	0.00980	0.0100	-2.0	20.0
1,1,1-Trichloroethane	Ave	0.3308	0.3156	0.1000	0.00954	0.0100	-4.6	20.0
Cyclohexane	Ave	0.3679	0.3580	0.1000	0.00973	0.0100	-2.7	20.0
1,1-Dichloropropene	Ave	0.3588	0.3527		0.00983	0.0100	-1.7	20.0
Carbon tetrachloride	Ave	0.2829	0.2672	0.1000	0.00944	0.0100	-5.6	20.0
Isobutyl alcohol	Ave	0.0060	0.0048		0.202	0.250	-19.0	20.0
1,2-Dichloroethane	Ave	0.3070	0.2937	0.1000	0.00957	0.0100	-4.3	20.0
Benzene	Ave	1.192	1.140	0.5000	0.00957	0.0100	-4.3	20.0
n-Heptane	Ave	0.0603	0.0582		0.00965	0.0100	-3.5	20.0
Trichloroethene	Ave	0.2980	0.2952	0.1500	0.00990	0.0100	-1.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3653	0.3484	0.1000	0.00954	0.0100	-4.6	20.0
1,2-Dichloropropane	Ave	0.2768	0.2599	0.1000	0.00939	0.0100	-6.1	20.0
Dibromomethane	Ave	0.1447	0.1360		0.00940	0.0100	-6.0	20.0
1,4-Dioxane	Qua		0.0008		0.0980	0.200	-51.0*	50.0
Dichlorobromomethane	Ave	0.3203	0.2890	0.1500	0.00902	0.0100	-9.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1542	0.1406		0.0182	0.0200	-8.8	20.0
cis-1,3-Dichloropropene	Ave	0.4213	0.3740	0.1500	0.00888	0.0100	-11.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1937	0.1613	0.0500	0.0167	0.0200	-16.7	20.0
Toluene	Ave	1.702	1.635	0.4000	0.00961	0.0100	-3.9	20.0
trans-1,3-Dichloropropene	Ave	0.4875	0.3938	0.1000	0.00808	0.0100	-19.2	20.0
Ethyl methacrylate	Ave	0.4728	0.4224		0.00893	0.0100	-10.7	20.0
1,1,2-Trichloroethane	Ave	0.2936	0.2877	0.1000	0.00980	0.0100	-2.0	20.0
Tetrachloroethene	Ave	0.3204	0.3158	0.1500	0.00986	0.0100	-1.4	20.0
1,3-Dichloropropane	Ave	0.5391	0.5115		0.00949	0.0100	-5.1	20.0
2-Hexanone	Ave	0.1913	0.1439	0.0500	0.0150	0.0200	-24.8*	20.0
Chlorodibromomethane	Ave	0.2886	0.2361		0.00818	0.0100	-18.2	20.0
Ethylene Dibromide	Ave	0.2950	0.2751		0.00932	0.0100	-6.8	20.0
Chlorobenzene	Ave	1.030	0.997	0.3000	0.00968	0.0100	-3.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3429	0.3204		0.00935	0.0100	-6.5	20.0
Ethylbenzene	Ave	0.5585	0.5409		0.00968	0.0100	-3.2	20.0
m-Xylene & p-Xylene	Ave	0.6874	0.6686		0.00973	0.0100	-2.7	20.0
o-Xylene	Ave	0.6575	0.6420		0.00976	0.0100	-2.4	20.0
Styrene	Ave	1.178	1.135	0.3000	0.00964	0.0100	-3.6	20.0
Bromoform	Lin1		0.1122	0.1000	0.00610	0.0100	-39.0*	20.0
Isopropylbenzene	Ave	1.565	1.521	0.1000	0.00972	0.0100	-2.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6779	0.6238	0.3000	0.00920	0.0100	-8.0	20.0
Bromobenzene	Ave	0.8986	0.9018		0.0100	0.0100	0.4	20.0
1,2,3-Trichloropropane	Ave	0.2291	0.1991		0.00869	0.0100	-13.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1153	0.0490		0.00425	0.0100	-57.5*	20.0
N-Propylbenzene	Ave	0.8597	0.8464		0.00984	0.0100	-1.6	20.0
2-Chlorotoluene	Ave	0.7888	0.7428		0.00942	0.0100	-5.8	20.0
1,3,5-Trimethylbenzene	Ave	2.442	2.442		0.0100	0.0100	0.0	20.0
4-Chlorotoluene	Ave	0.8109	0.7822		0.00965	0.0100	-3.5	20.0
tert-Butylbenzene	Ave	2.077	2.031		0.00978	0.0100	-2.2	20.0
1,2,4-Trimethylbenzene	Ave	2.524	2.484		0.00984	0.0100	-1.6	20.0
sec-Butylbenzene	Ave	2.678	2.649		0.00989	0.0100	-1.1	20.0
1,3-Dichlorobenzene	Ave	1.466	1.442	0.6000	0.00984	0.0100	-1.6	20.0
4-Isopropyltoluene	Ave	2.306	2.250		0.00976	0.0100	-2.4	20.0
1,4-Dichlorobenzene	Ave	1.514	1.470	0.5000	0.00971	0.0100	-2.9	20.0
n-Butylbenzene	Ave	1.817	1.748		0.00962	0.0100	-3.8	20.0
1,2-Dichlorobenzene	Ave	1.344	1.330	0.4000	0.00989	0.0100	-1.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-272768/2 Calibration Date: 03/31/2017 10:13

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 09:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 11:46

Lab File ID: UXJ1120.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1151	0.0975	0.0500	0.00847	0.0100	-15.3	50.0
1,2,4-Trichlorobenzene	Ave	0.7024	0.6567	0.2000	0.00935	0.0100	-6.5	50.0
Hexachlorobutadiene	Ave	0.3161	0.2927		0.00926	0.0100	-7.4	20.0
Naphthalene	Ave	1.583	1.427		0.00901	0.0100	-9.9	50.0
1,2,3-Trichlorobenzene	Ave	0.5891	0.5351		0.00908	0.0100	-9.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2379	0.2377		0.00999	0.0100	-0.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2752	0.2698		0.00980	0.0100	-2.0	20.0
Toluene-d8 (Surr)	Ave	1.444	1.435		0.00994	0.0100	-0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4796	0.4696		0.00979	0.0100	-2.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCV 240-272768/3 Calibration Date: 03/31/2017 10:58

Instrument ID: A3UX11 Calib Start Date: 03/29/2017 12:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 14:24

Lab File ID: UXJ1122.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0181	0.0172		0.0947	0.100	-5.3	20.0
Isopropyl ether	Ave	0.2617	0.2634		0.0101	0.0100	0.6	20.0
2-Chloro-1,3-butadiene	Ave	0.4583	0.4158		0.00907	0.0100	-9.3	20.0
Tert-butyl ethyl ether	Ave	0.8371	0.8003		0.00956	0.0100	-4.4	20.0
Ethyl acetate	Ave	0.1936	0.1847		0.0191	0.0200	-4.6	50.0
Propionitrile	Ave	0.0241	0.0226		0.0937	0.100	-6.3	20.0
Methacrylonitrile	Ave	0.1333	0.1254		0.0941	0.100	-5.9	20.0
Tert-amyl methyl ether	Ave	0.7539	0.7487		0.00993	0.0100	-0.7	20.0
n-Butanol	Ave	0.0051	0.0035		0.171	0.250	-31.5*	20.0
Ethyl acrylate	Ave	0.2937	0.2810		0.00957	0.0100	-4.3	20.0
Methyl methacrylate	Ave	0.2018	0.1879		0.0186	0.0200	-6.9	20.0
2-Nitropropane	Ave	0.0491	0.0458		0.0187	0.0200	-6.6	20.0
n-Butyl acetate	Ave	0.3308	0.3081		0.00931	0.0100	-6.9	20.0
1-Chlorohexane	Ave	0.4626	0.4331		0.00936	0.0100	-6.4	20.0
Cyclohexanone	Lin1		0.0087		0.0672	0.100	-32.8*	20.0
Pentachloroethane	Lin1		0.1619		0.0157	0.0200	-21.3	
1,2,3-Trimethylbenzene	Ave	2.527	2.475		0.00979	0.0100	-2.1	20.0
Benzyl chloride	Lin1		0.3049		0.00937	0.0100	-6.3	
1,3,5-Trichlorobenzene	Ave	0.8021	0.7516		0.00937	0.0100	-6.3	20.0
2-Methylnaphthalene	Ave	0.9439	0.7518		0.0159	0.0200	-20.4*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-272636/19 Calibration Date: 03/30/2017 17:09

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256172.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4272	0.3938	0.1000	0.0184	0.0200	-7.8	20.0
Chloromethane	Ave	0.5137	0.4827	0.1000	0.0188	0.0200	-6.0	20.0
Vinyl chloride	Ave	0.5242	0.5142	0.1000	0.0196	0.0200	-1.9	20.0
Butadiene	Ave	0.5003	0.4863		0.0194	0.0200	-2.8	30.0
Bromomethane	Ave	0.2623	0.2562	0.0500	0.0195	0.0200	-2.3	20.0
Chloroethane	Ave	0.3109	0.3181	0.0500	0.0205	0.0200	2.3	20.0
Dichlorofluoromethane	Ave	0.6506	0.6495		0.0200	0.0200	-0.2	20.0
Trichlorofluoromethane	Ave	0.4471	0.4961	0.1000	0.0222	0.0200	10.9	20.0
Ethyl ether	Ave	0.2663	0.2843		0.0214	0.0200	6.8	20.0
Acrolein	Ave	0.0402	0.0521		0.130	0.100	29.6	50.0
1,1-Dichloroethene	Ave	0.5883	0.6308	0.1000	0.0214	0.0200	7.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3173	0.3503	0.0500	0.0221	0.0200	10.4	20.0
Acetone	Lin1		0.0856	0.0100	0.0287	0.0400	-28.2	50.0
Iodomethane	Ave	0.5346	0.5663		0.0212	0.0200	5.9	20.0
Carbon disulfide	Ave	1.114	1.153	0.1000	0.0207	0.0200	3.5	20.0
3-Chloro-1-propene	Ave	0.3444	0.4503		0.0261	0.0200	30.7*	20.0
Methyl acetate	Ave	0.2143	0.2225	0.1000	0.0415	0.0400	3.8	20.0
Methylene Chloride	Lin1		0.4987	0.1000	0.0191	0.0200	-4.3	50.0
2-Methyl-2-propanol	Ave	0.0293	0.0332		0.226	0.200	13.2	50.0
Acrylonitrile	Ave	0.1241	0.1275		0.205	0.200	2.7	20.0
Methyl tert-butyl ether	Ave	0.7997	0.8122	0.1000	0.0203	0.0200	1.6	20.0
trans-1,2-Dichloroethene	Ave	0.4451	0.4745	0.1000	0.0213	0.0200	6.6	20.0
Hexane	Ave	0.3578	0.4036		0.0226	0.0200	12.8	20.0
1,1-Dichloroethane	Ave	0.5536	0.5725	0.2000	0.0207	0.0200	3.4	20.0
Vinyl acetate	Ave	0.4387	0.5577		0.0254	0.0200	27.1	50.0
2,2-Dichloropropane	Ave	0.2268	0.2373		0.0209	0.0200	4.6	20.0
cis-1,2-Dichloroethene	Ave	0.4794	0.4835	0.1000	0.0202	0.0200	0.9	20.0
2-Butanone (MEK)	Ave	0.1484	0.1404	0.0100	0.0379	0.0400	-5.4	20.0
Chlorobromomethane	Ave	0.2696	0.2593		0.0192	0.0200	-3.8	20.0
Tetrahydrofuran	Ave	0.0902	0.0914		0.0405	0.0400	1.3	20.0
Chloroform	Ave	0.5171	0.5274	0.2000	0.0204	0.0200	2.0	20.0
1,1,1-Trichloroethane	Ave	0.3439	0.3578	0.1000	0.0208	0.0200	4.0	20.0
Cyclohexane	Ave	0.4899	0.5377	0.1000	0.0220	0.0200	9.8	20.0
1,1-Dichloropropene	Ave	0.4332	0.4507		0.0208	0.0200	4.0	20.0
Carbon tetrachloride	Ave	0.3017	0.3282	0.1000	0.0218	0.0200	8.8	20.0
Isobutyl alcohol	Lin1		0.0085		0.518	0.500	3.7	20.0
Benzene	Ave	1.387	1.441	0.5000	0.0208	0.0200	3.9	20.0
1,2-Dichloroethane	Ave	0.3908	0.3964	0.1000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.2109		0.0207	0.0200	3.6	20.0
Trichloroethene	Ave	0.3490	0.3498	0.1500	0.0200	0.0200	0.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-272636/19 Calibration Date: 03/30/2017 17:09

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256172.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4444	0.4784	0.1000	0.0215	0.0200	7.6	20.0
1,2-Dichloropropane	Ave	0.3324	0.3500	0.1000	0.0211	0.0200	5.3	20.0
Dibromomethane	Ave	0.2199	0.2198		0.0200	0.0200	-0.0	20.0
1,4-Dioxane	Lin1		0.0043		0.451	0.400	12.8	50.0
Dichlorobromomethane	Ave	0.3645	0.3873	0.1500	0.0212	0.0200	6.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1221	0.1307		0.0214	0.0200	7.1	20.0
cis-1,3-Dichloropropene	Ave	0.4794	0.5432	0.1500	0.0227	0.0200	13.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2708	0.2766	0.0500	0.0409	0.0400	2.2	20.0
Toluene	Ave	1.925	1.934	0.4000	0.0201	0.0200	0.5	20.0
trans-1,3-Dichloropropene	Lin1		0.5770	0.1000	0.0191	0.0200	-4.3	20.0
Ethyl methacrylate	Ave	0.5175	0.5589		0.0216	0.0200	8.0	20.0
1,1,2-Trichloroethane	Ave	0.3828	0.3860	0.1000	0.0202	0.0200	0.9	20.0
Tetrachloroethene	Ave	0.4272	0.4388	0.1500	0.0205	0.0200	2.7	20.0
1,3-Dichloropropane	Ave	0.7118	0.7163		0.0201	0.0200	0.6	20.0
2-Hexanone	Ave	0.2515	0.2513	0.0500	0.0400	0.0400	-0.1	20.0
Chlorodibromomethane	Ave	0.3322	0.3621		0.0218	0.0200	9.0	20.0
Ethylene Dibromide	Ave	0.3707	0.3784		0.0204	0.0200	2.1	20.0
Chlorobenzene	Ave	1.256	1.257	0.3000	0.0200	0.0200	0.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3601	0.3845		0.0214	0.0200	6.8	20.0
Ethylbenzene	Ave	0.6332	0.6610		0.0209	0.0200	4.4	20.0
m-Xylene & p-Xylene	Ave	0.7970	0.8258		0.0207	0.0200	3.6	20.0
o-Xylene	Ave	0.8023	0.8155		0.0203	0.0200	1.6	20.0
Styrene	Ave	1.382	1.434	0.3000	0.0208	0.0200	3.8	20.0
Bromoform	Lin1		0.2314	0.1000	0.0194	0.0200	-2.9	20.0
Isopropylbenzene	Ave	1.832	1.928	0.1000	0.0210	0.0200	5.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9427	0.9583	0.3000	0.0203	0.0200	1.7	20.0
Bromobenzene	Ave	0.9406	0.9531		0.0203	0.0200	1.3	20.0
1,2,3-Trichloropropane	Ave	0.3053	0.3246		0.0213	0.0200	6.3	20.0
trans-1,4-Dichloro-2-butene	Qua		0.2010		0.0235	0.0200	17.6	20.0
N-Propylbenzene	Ave	0.8934	0.9509		0.0213	0.0200	6.4	20.0
2-Chlorotoluene	Ave	0.8085	0.8388		0.0207	0.0200	3.7	20.0
1,3,5-Trimethylbenzene	Ave	2.730	2.854		0.0209	0.0200	4.5	20.0
4-Chlorotoluene	Ave	0.8925	0.9150		0.0205	0.0200	2.5	20.0
tert-Butylbenzene	Ave	2.291	2.381		0.0208	0.0200	3.9	20.0
1,2,4-Trimethylbenzene	Ave	2.938	3.006		0.0205	0.0200	2.3	20.0
sec-Butylbenzene	Ave	3.240	3.368		0.0208	0.0200	4.0	20.0
1,3-Dichlorobenzene	Ave	1.713	1.763	0.6000	0.0206	0.0200	2.9	20.0
4-Isopropyltoluene	Ave	2.833	3.028		0.0214	0.0200	6.9	20.0
1,4-Dichlorobenzene	Ave	1.824	1.819	0.5000	0.0199	0.0200	-0.3	20.0
n-Butylbenzene	Ave	2.283	2.368		0.0207	0.0200	3.7	20.0
1,2-Dichlorobenzene	Ave	1.682	1.709	0.4000	0.0203	0.0200	1.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-272636/19 Calibration Date: 03/30/2017 17:09

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256172.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1717	0.1951	0.0500	0.0227	0.0200	13.6	50.0
1,2,4-Trichlorobenzene	Ave	0.9845	0.9731	0.2000	0.0198	0.0200	-1.2	50.0
Hexachlorobutadiene	Ave	0.4000	0.4373		0.0219	0.0200	9.3	20.0
Naphthalene	Ave	2.520	2.633		0.0209	0.0200	4.5	50.0
1,2,3-Trichlorobenzene	Ave	0.8562	0.8941		0.0209	0.0200	4.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2825	0.2659		0.0155	0.0165	-5.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3288	0.3241		0.0163	0.0165	-1.4	20.0
Toluene-d8 (Surr)	Ave	1.575	1.513		0.0159	0.0165	-3.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5951	0.5598		0.0155	0.0165	-5.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-273820/3 Calibration Date: 04/07/2017 15:51

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256397.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4272	0.5120	0.1000	0.0240	0.0200	19.9	20.0
Chloromethane	Ave	0.5137	0.5570	0.1000	0.0217	0.0200	8.4	20.0
Vinyl chloride	Ave	0.5242	0.5496	0.1000	0.0210	0.0200	4.8	20.0
Butadiene	Ave	0.5003	0.4594		0.0184	0.0200	-8.2	20.0
Bromomethane	Ave	0.2623	0.2836	0.0500	0.0216	0.0200	8.1	20.0
Chloroethane	Ave	0.3109	0.3332	0.0500	0.0214	0.0200	7.2	20.0
Dichlorofluoromethane	Ave	0.6506	0.6703		0.0206	0.0200	3.0	20.0
Trichlorofluoromethane	Ave	0.4471	0.5333	0.1000	0.0239	0.0200	19.3	20.0
Ethyl ether	Ave	0.2663	0.2609		0.0196	0.0200	-2.0	20.0
Acrolein	Ave	0.0402	0.0470		0.117	0.100	16.8	50.0
1,1-Dichloroethene	Ave	0.5883	0.5967	0.1000	0.0203	0.0200	1.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3173	0.3351	0.0500	0.0211	0.0200	5.6	20.0
Acetone	Lin1		0.1109	0.0100	0.0374	0.0400	-6.5	50.0
Iodomethane	Ave	0.5346	0.4985		0.0186	0.0200	-6.8	20.0
Carbon disulfide	Ave	1.114	1.308	0.1000	0.0235	0.0200	17.4	20.0
3-Chloro-1-propene	Ave	0.3444	0.2899		0.0168	0.0200	-15.8	20.0
Methyl acetate	Ave	0.2143	0.2047	0.1000	0.0955	0.100	-4.5	20.0
Methylene Chloride	Lin1		0.5181	0.1000	0.0200	0.0200	-0.1	50.0
2-Methyl-2-propanol	Ave	0.0293	0.0263		0.180	0.200	-10.1	50.0
Acrylonitrile	Ave	0.1241	0.1149		0.185	0.200	-7.4	20.0
trans-1,2-Dichloroethene	Ave	0.4451	0.4574	0.1000	0.0206	0.0200	2.8	20.0
Methyl tert-butyl ether	Ave	0.7997	0.7785	0.1000	0.0195	0.0200	-2.7	20.0
Hexane	Ave	0.3578	0.3825		0.0214	0.0200	6.9	20.0
1,1-Dichloroethane	Ave	0.5536	0.5584	0.2000	0.0202	0.0200	0.9	20.0
Vinyl acetate	Ave	0.4387	0.4323		0.0197	0.0200	-1.5	50.0
2,2-Dichloropropane	Ave	0.2268	0.2278		0.0201	0.0200	0.4	20.0
cis-1,2-Dichloroethene	Ave	0.4794	0.4777	0.1000	0.0199	0.0200	-0.3	20.0
2-Butanone (MEK)	Ave	0.1484	0.1364	0.0100	0.0368	0.0400	-8.1	20.0
Chlorobromomethane	Ave	0.2696	0.2694		0.0200	0.0200	-0.0	20.0
Tetrahydrofuran	Ave	0.0902	0.0801		0.0355	0.0400	-11.2	20.0
Chloroform	Ave	0.5171	0.5185	0.2000	0.0201	0.0200	0.3	20.0
1,1,1-Trichloroethane	Ave	0.3439	0.3472	0.1000	0.0202	0.0200	1.0	20.0
Cyclohexane	Ave	0.4899	0.4272	0.1000	0.0174	0.0200	-12.8	20.0
1,1-Dichloropropene	Ave	0.4332	0.4439		0.0205	0.0200	2.5	20.0
Carbon tetrachloride	Ave	0.3017	0.3280	0.1000	0.0217	0.0200	8.7	20.0
Isobutyl alcohol	Lin1		0.0076		0.467	0.500	-6.5	20.0
Benzene	Ave	1.387	1.416	0.5000	0.0204	0.0200	2.1	20.0
1,2-Dichloroethane	Ave	0.3908	0.3883	0.1000	0.0199	0.0200	-0.6	20.0
n-Heptane	Lin1		0.1976		0.0192	0.0200	-3.9	20.0
Trichloroethene	Ave	0.3490	0.3424	0.1500	0.0196	0.0200	-1.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-273820/3 Calibration Date: 04/07/2017 15:51

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256397.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4444	0.4640	0.1000	0.0209	0.0200	4.4	20.0
1,2-Dichloropropane	Ave	0.3324	0.3352	0.1000	0.0202	0.0200	0.8	20.0
Dibromomethane	Ave	0.2199	0.2116		0.0192	0.0200	-3.8	20.0
1,4-Dioxane	Lin1		0.0036		0.379	0.400	-5.1	50.0
Dichlorobromomethane	Ave	0.3645	0.3903	0.1500	0.0214	0.0200	7.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1221	0.1307		0.0428	0.0400	7.1	20.0
cis-1,3-Dichloropropene	Ave	0.4794	0.5239	0.1500	0.0219	0.0200	9.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2708	0.2502	0.0500	0.0370	0.0400	-7.6	20.0
Toluene	Ave	1.925	1.964	0.4000	0.0204	0.0200	2.0	20.0
trans-1,3-Dichloropropene	Lin1		0.6000	0.1000	0.0199	0.0200	-0.5	20.0
Ethyl methacrylate	Ave	0.5175	0.5448		0.0211	0.0200	5.3	20.0
1,1,2-Trichloroethane	Ave	0.3828	0.3839	0.1000	0.0201	0.0200	0.3	20.0
Tetrachloroethene	Ave	0.4272	0.4533	0.1500	0.0212	0.0200	6.1	20.0
1,3-Dichloropropane	Ave	0.7118	0.7330		0.0206	0.0200	3.0	20.0
2-Hexanone	Ave	0.2515	0.2534	0.0500	0.0403	0.0400	0.7	20.0
Chlorodibromomethane	Ave	0.3322	0.3621		0.0218	0.0200	9.0	20.0
Ethylene Dibromide	Ave	0.3707	0.3849		0.0208	0.0200	3.8	20.0
Chlorobenzene	Ave	1.256	1.298	0.3000	0.0207	0.0200	3.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3601	0.3903		0.0217	0.0200	8.4	20.0
Ethylbenzene	Ave	0.6332	0.6843		0.0216	0.0200	8.1	20.0
m-Xylene & p-Xylene	Ave	0.7970	0.8565		0.0215	0.0200	7.5	20.0
o-Xylene	Ave	0.8023	0.8492		0.0212	0.0200	5.9	20.0
Styrene	Ave	1.382	1.472	0.3000	0.0213	0.0200	6.5	20.0
Bromoform	Lin1		0.2171	0.1000	0.0183	0.0200	-8.7	20.0
Isopropylbenzene	Ave	1.832	2.016	0.1000	0.0220	0.0200	10.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9427	0.9491	0.3000	0.0201	0.0200	0.7	20.0
Bromobenzene	Ave	0.9406	0.999		0.0212	0.0200	6.2	20.0
1,2,3-Trichloropropane	Ave	0.3053	0.3087		0.0202	0.0200	1.1	20.0
trans-1,4-Dichloro-2-butene	Qua		0.2089		0.0243	0.0200	21.5*	20.0
N-Propylbenzene	Ave	0.8934	0.9939		0.0222	0.0200	11.2	20.0
2-Chlorotoluene	Ave	0.8085	0.8974		0.0222	0.0200	11.0	20.0
1,3,5-Trimethylbenzene	Ave	2.730	3.038		0.0223	0.0200	11.3	20.0
4-Chlorotoluene	Ave	0.8925	0.9474		0.0212	0.0200	6.2	20.0
tert-Butylbenzene	Ave	2.291	2.521		0.0220	0.0200	10.0	20.0
1,2,4-Trimethylbenzene	Ave	2.938	3.261		0.0222	0.0200	11.0	20.0
sec-Butylbenzene	Ave	3.240	3.614		0.0223	0.0200	11.6	20.0
1,3-Dichlorobenzene	Ave	1.713	1.859	0.6000	0.0217	0.0200	8.5	20.0
4-Isopropyltoluene	Ave	2.833	3.184		0.0225	0.0200	12.4	20.0
1,4-Dichlorobenzene	Ave	1.824	1.876	0.5000	0.0206	0.0200	2.9	20.0
n-Butylbenzene	Ave	2.283	2.625		0.0230	0.0200	15.0	20.0
1,2-Dichlorobenzene	Ave	1.682	1.782	0.4000	0.0212	0.0200	5.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-273820/3 Calibration Date: 04/07/2017 15:51

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256397.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1717	0.1753	0.0500	0.0204	0.0200	2.1	50.0
1,2,4-Trichlorobenzene	Ave	0.9845	1.020	0.2000	0.0207	0.0200	3.6	50.0
Hexachlorobutadiene	Ave	0.4000	0.4144		0.0207	0.0200	3.6	20.0
Naphthalene	Ave	2.520	2.673		0.0212	0.0200	6.1	50.0
1,2,3-Trichlorobenzene	Ave	0.8562	0.9095		0.0212	0.0200	6.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2825	0.2575		0.0151	0.0165	-8.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3288	0.2846		0.0143	0.0165	-13.4	20.0
Toluene-d8 (Surr)	Ave	1.575	1.508		0.0158	0.0165	-4.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5951	0.5710		0.0159	0.0165	-4.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2754	0.1000	0.0174	0.0200	-13.0	20.0
Chloromethane	Ave	0.3878	0.3485	0.1000	0.0180	0.0200	-10.1	20.0
Vinyl chloride	Ave	0.3718	0.3559	0.1000	0.0191	0.0200	-4.3	20.0
Butadiene	Ave	0.2937	0.2643		0.0180	0.0200	-10.0	30.0
Bromomethane	Ave	0.2332	0.2350	0.0500	0.0202	0.0200	0.8	20.0
Chloroethane	Ave	0.2186	0.2331	0.0500	0.0213	0.0200	6.7	20.0
Dichlorofluoromethane	Ave	0.5919	0.5918		0.0200	0.0200	-0.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.4116	0.1000	0.0198	0.0200	-1.1	20.0
Ethyl ether	Ave	0.2501	0.2556		0.0204	0.0200	2.2	20.0
Acrolein	Ave	0.0337	0.0396		0.117	0.100	17.5	50.0
1,1-Dichloroethene	Ave	0.2878	0.2795	0.1000	0.0194	0.0200	-2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1533	0.0500	0.0174	0.0200	-13.2	20.0
Acetone	Lin1		0.0696	0.0100	0.0321	0.0400	-19.8	50.0
Iodomethane	Ave	0.4621	0.4372		0.0189	0.0200	-5.4	20.0
Carbon disulfide	Ave	0.9514	0.8428	0.1000	0.0177	0.0200	-11.4	20.0
3-Chloro-1-propene	Ave	0.2013	0.2425		0.0241	0.0200	20.5*	20.0
Methyl acetate	Ave	0.1624	0.1554	0.1000	0.0957	0.100	-4.3	20.0
Methylene Chloride	Lin1		0.3421	0.1000	0.0205	0.0200	2.4	50.0
2-Methyl-2-propanol	Lin1		0.0196		0.202	0.200	0.8	50.0
Acrylonitrile	Ave	0.0864	0.0848		0.196	0.200	-1.9	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.3170	0.1000	0.0201	0.0200	0.3	20.0
Methyl tert-butyl ether	Ave	0.8308	0.8348	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2897	0.2684		0.0185	0.0200	-7.4	20.0
1,1-Dichloroethane	Ave	0.5224	0.5289	0.2000	0.0202	0.0200	1.2	20.0
Vinyl acetate	Ave	0.4093	0.4128		0.0202	0.0200	0.9	50.0
2,2-Dichloropropane	Ave	0.3598	0.3379		0.0188	0.0200	-6.1	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3547	0.1000	0.0202	0.0200	0.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0855	0.0100	0.0346	0.0400	-13.6	20.0
Chlorobromomethane	Ave	0.1468	0.1543		0.0210	0.0200	5.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0579		0.0401	0.0400	0.3	20.0
Chloroform	Ave	0.5317	0.5428	0.2000	0.0204	0.0200	2.1	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4432	0.1000	0.0203	0.0200	1.5	20.0
Cyclohexane	Ave	0.4257	0.3980	0.1000	0.0187	0.0200	-6.5	20.0
1,1-Dichloropropene	Ave	0.3946	0.4168		0.0211	0.0200	5.6	20.0
Carbon tetrachloride	Ave	0.3605	0.3553	0.1000	0.0197	0.0200	-1.4	20.0
Isobutyl alcohol	Ave	0.0063	0.0067		0.531	0.500	6.3	20.0
1,2-Dichloroethane	Ave	0.3955	0.4072	0.1000	0.0206	0.0200	2.9	20.0
Benzene	Ave	1.238	1.256	0.5000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.1419		0.0184	0.0200	-8.2	20.0
Trichloroethene	Ave	0.3129	0.3131	0.1500	0.0200	0.0200	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3824	0.1000	0.0192	0.0200	-4.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2828	0.1000	0.0205	0.0200	2.3	20.0
Dibromomethane	Ave	0.1648	0.1637		0.0199	0.0200	-0.6	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.396	0.400	-1.0	50.0
Dichlorobromomethane	Ave	0.3799	0.3911	0.1500	0.0206	0.0200	3.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1427		0.0202	0.0200	1.0	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4754	0.1500	0.0208	0.0200	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2065	0.0500	0.0404	0.0400	1.1	20.0
Toluene	Ave	1.523	1.556	0.4000	0.0204	0.0200	2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4662	0.1000	0.0200	0.0200	0.1	20.0
Ethyl methacrylate	Ave	0.3726	0.3982		0.0214	0.0200	6.8	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2798	0.1000	0.0211	0.0200	5.4	20.0
1,3-Dichloropropane	Ave	0.4781	0.4821		0.0202	0.0200	0.8	20.0
Tetrachloroethene	Ave	0.2566	0.2648	0.1500	0.0206	0.0200	3.2	20.0
2-Hexanone	Ave	0.1699	0.1662	0.0500	0.0391	0.0400	-2.2	20.0
Chlorodibromomethane	Ave	0.3007	0.3087		0.0205	0.0200	2.7	20.0
Ethylene Dibromide	Ave	0.2584	0.2744		0.0212	0.0200	6.2	20.0
Chlorobenzene	Ave	0.9683	0.9766	0.3000	0.0202	0.0200	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3543		0.0211	0.0200	5.5	20.0
Ethylbenzene	Ave	0.5186	0.5447		0.0210	0.0200	5.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6832		0.0208	0.0200	4.1	20.0
o-Xylene	Ave	0.6658	0.6969		0.0209	0.0200	4.7	20.0
Styrene	Ave	1.131	1.212	0.3000	0.0214	0.0200	7.1	20.0
Bromoform	Ave	0.1830	0.1912	0.1000	0.0209	0.0200	4.5	20.0
Isopropylbenzene	Ave	1.648	1.723	0.1000	0.0209	0.0200	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6059	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.6921	0.7158		0.0207	0.0200	3.4	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1976		0.0221	0.0200	10.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1763		0.0218	0.0200	8.8	20.0
N-Propylbenzene	Ave	0.7108	0.7354		0.0207	0.0200	3.5	20.0
2-Chlorotoluene	Ave	0.6372	0.6789		0.0213	0.0200	6.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.355		0.0209	0.0200	4.7	20.0
4-Chlorotoluene	Ave	0.6808	0.7194		0.0211	0.0200	5.7	20.0
tert-Butylbenzene	Ave	1.832	1.861		0.0203	0.0200	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.511		0.0210	0.0200	4.8	20.0
sec-Butylbenzene	Ave	2.517	2.551		0.0203	0.0200	1.3	20.0
1,3-Dichlorobenzene	Ave	1.358	1.413	0.6000	0.0208	0.0200	4.0	20.0
4-Isopropyltoluene	Ave	2.194	2.236		0.0204	0.0200	1.9	20.0
1,4-Dichlorobenzene	Ave	1.421	1.444	0.5000	0.0203	0.0200	1.6	20.0
n-Butylbenzene	Ave	1.821	1.891		0.0208	0.0200	3.8	20.0
1,2-Dichlorobenzene	Ave	1.283	1.343	0.4000	0.0209	0.0200	4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1071	0.0500	0.0207	0.0200	3.4	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6678	0.2000	0.0204	0.0200	1.8	50.0
Hexachlorobutadiene	Ave	0.2651	0.2451		0.0185	0.0200	-7.6	20.0
Naphthalene	Ave	1.583	1.643		0.0208	0.0200	3.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5563		0.0204	0.0200	2.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2578		0.0194	0.0200	-3.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3176		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.277	1.236		0.0194	0.0200	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4880		0.0194	0.0200	-2.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-274011/3 Calibration Date: 04/10/2017 12:23

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1627.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2683	0.1000	0.0170	0.0200	-15.2	20.0
Chloromethane	Ave	0.3878	0.3866	0.1000	0.0199	0.0200	-0.3	20.0
Vinyl chloride	Ave	0.3718	0.3766	0.1000	0.0203	0.0200	1.3	20.0
Butadiene	Ave	0.2937	0.2694		0.0184	0.0200	-8.2	20.0
Bromomethane	Ave	0.2332	0.2348	0.0500	0.0201	0.0200	0.7	20.0
Chloroethane	Ave	0.2186	0.2353	0.0500	0.0215	0.0200	7.7	20.0
Dichlorofluoromethane	Ave	0.5919	0.5675		0.0192	0.0200	-4.1	20.0
Trichlorofluoromethane	Ave	0.4159	0.3456	0.1000	0.0166	0.0200	-16.9	20.0
Ethyl ether	Ave	0.2501	0.2375		0.0190	0.0200	-5.0	20.0
Acrolein	Ave	0.0337	0.0368		0.109	0.100	8.9	50.0
1,1-Dichloroethene	Ave	0.2878	0.2685	0.1000	0.0187	0.0200	-6.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1286	0.0500	0.0146	0.0200	-27.0*	20.0
Acetone	Lin1		0.0910	0.0100	0.0423	0.0400	5.8	50.0
Iodomethane	Ave	0.4621	0.4234		0.0183	0.0200	-8.4	20.0
Carbon disulfide	Ave	0.9514	0.8257	0.1000	0.0174	0.0200	-13.2	20.0
3-Chloro-1-propene	Ave	0.2013	0.2024		0.0201	0.0200	0.6	20.0
Methyl acetate	Ave	0.1624	0.1585	0.1000	0.0976	0.100	-2.4	20.0
Methylene Chloride	Lin1		0.3208	0.1000	0.0191	0.0200	-4.5	50.0
2-Methyl-2-propanol	Lin1		0.0200		0.205	0.200	2.5	50.0
Acrylonitrile	Ave	0.0864	0.0832		0.193	0.200	-3.7	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.2957	0.1000	0.0187	0.0200	-6.4	20.0
Methyl tert-butyl ether	Ave	0.8308	0.7794	0.1000	0.0188	0.0200	-6.2	20.0
Hexane	Ave	0.2897	0.2222		0.0153	0.0200	-23.3*	20.0
1,1-Dichloroethane	Ave	0.5224	0.5074	0.2000	0.0194	0.0200	-2.9	20.0
Vinyl acetate	Ave	0.4093	0.3909		0.0191	0.0200	-4.5	50.0
2,2-Dichloropropane	Ave	0.3598	0.3365		0.0187	0.0200	-6.5	20.0
2-Butanone (MEK)	Ave	0.0989	0.0933	0.0100	0.0377	0.0400	-5.7	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3273	0.1000	0.0186	0.0200	-7.0	20.0
Chlorobromomethane	Ave	0.1468	0.1430		0.0195	0.0200	-2.6	20.0
Tetrahydrofuran	Ave	0.0577	0.0578		0.0401	0.0400	0.2	20.0
Chloroform	Ave	0.5317	0.4904	0.2000	0.0184	0.0200	-7.8	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4091	0.1000	0.0187	0.0200	-6.3	20.0
Cyclohexane	Ave	0.4257	0.3213	0.1000	0.0151	0.0200	-24.5*	20.0
1,1-Dichloropropene	Ave	0.3946	0.3828		0.0194	0.0200	-3.0	20.0
Carbon tetrachloride	Ave	0.3605	0.3226	0.1000	0.0179	0.0200	-10.5	20.0
Isobutyl alcohol	Ave	0.0063	0.0074		0.586	0.500	17.3	20.0
1,2-Dichloroethane	Ave	0.3955	0.3773	0.1000	0.0191	0.0200	-4.6	20.0
Benzene	Ave	1.238	1.141	0.5000	0.0184	0.0200	-7.8	20.0
n-Heptane	Lin1		0.1242		0.0154	0.0200	-23.1*	20.0
Trichloroethene	Ave	0.3129	0.2863	0.1500	0.0183	0.0200	-8.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-274011/3 Calibration Date: 04/10/2017 12:23

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1627.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3225	0.1000	0.0162	0.0200	-19.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2656	0.1000	0.0192	0.0200	-3.9	20.0
Dibromomethane	Ave	0.1648	0.1499		0.0182	0.0200	-9.1	20.0
1,4-Dioxane	Ave	0.0024	0.0025		0.418	0.400	4.6	50.0
Dichlorobromomethane	Ave	0.3799	0.3440	0.1500	0.0181	0.0200	-9.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1320		0.0374	0.0400	-6.6	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4217	0.1500	0.0184	0.0200	-7.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.1902	0.0500	0.0372	0.0400	-6.9	20.0
Toluene	Ave	1.523	1.575	0.4000	0.0207	0.0200	3.4	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4900	0.1000	0.0210	0.0200	5.2	20.0
Ethyl methacrylate	Ave	0.3726	0.4032		0.0216	0.0200	8.2	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2813	0.1000	0.0212	0.0200	6.0	20.0
1,3-Dichloropropane	Ave	0.4781	0.5060		0.0212	0.0200	5.8	20.0
Tetrachloroethene	Ave	0.2566	0.2628	0.1500	0.0205	0.0200	2.4	20.0
2-Hexanone	Ave	0.1699	0.1847	0.0500	0.0435	0.0400	8.7	20.0
Chlorodibromomethane	Ave	0.3007	0.3109		0.0207	0.0200	3.4	20.0
Ethylene Dibromide	Ave	0.2584	0.2805		0.0217	0.0200	8.5	20.0
Chlorobenzene	Ave	0.9683	0.999	0.3000	0.0206	0.0200	3.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3524		0.0210	0.0200	4.9	20.0
Ethylbenzene	Ave	0.5186	0.5410		0.0209	0.0200	4.3	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6786		0.0207	0.0200	3.4	20.0
o-Xylene	Ave	0.6658	0.6930		0.0208	0.0200	4.1	20.0
Styrene	Ave	1.131	1.163	0.3000	0.0206	0.0200	2.8	20.0
Bromoform	Ave	0.1830	0.1737	0.1000	0.0190	0.0200	-5.1	20.0
Isopropylbenzene	Ave	1.648	1.678	0.1000	0.0204	0.0200	1.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6106	0.3000	0.0210	0.0200	5.0	20.0
Bromobenzene	Ave	0.6921	0.7038		0.0203	0.0200	1.7	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1932		0.0216	0.0200	7.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1175		0.0145	0.0200	-27.5*	20.0
N-Propylbenzene	Ave	0.7108	0.7488		0.0211	0.0200	5.3	20.0
2-Chlorotoluene	Ave	0.6372	0.6702		0.0210	0.0200	5.2	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.321		0.0206	0.0200	3.2	20.0
4-Chlorotoluene	Ave	0.6808	0.7118		0.0209	0.0200	4.5	20.0
tert-Butylbenzene	Ave	1.832	1.999		0.0218	0.0200	9.1	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.484		0.0207	0.0200	3.7	20.0
sec-Butylbenzene	Ave	2.517	2.583		0.0205	0.0200	2.6	20.0
1,3-Dichlorobenzene	Ave	1.358	1.378	0.6000	0.0203	0.0200	1.4	20.0
4-Isopropyltoluene	Ave	2.194	2.233		0.0204	0.0200	1.8	20.0
1,4-Dichlorobenzene	Ave	1.421	1.404	0.5000	0.0198	0.0200	-1.2	20.0
n-Butylbenzene	Ave	1.821	1.863		0.0205	0.0200	2.3	20.0
1,2-Dichlorobenzene	Ave	1.283	1.315	0.4000	0.0205	0.0200	2.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-274011/3 Calibration Date: 04/10/2017 12:23

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1627.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1026	0.0500	0.0198	0.0200	-0.8	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6586	0.2000	0.0201	0.0200	0.4	50.0
Hexachlorobutadiene	Ave	0.2651	0.2356		0.0178	0.0200	-11.1	20.0
Naphthalene	Ave	1.583	1.659		0.0210	0.0200	4.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5374		0.0197	0.0200	-1.3	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2457		0.0185	0.0200	-7.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.2989		0.0185	0.0200	-7.6	20.0
Toluene-d8 (Surr)	Ave	1.277	1.349		0.0211	0.0200	5.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.5006		0.0199	0.0200	-0.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2533	0.1000	0.0171	0.0200	-14.4	20.0
Chloromethane	Ave	0.3526	0.3515	0.1000	0.0199	0.0200	-0.3	20.0
Vinyl chloride	Ave	0.3415	0.3456	0.1000	0.0202	0.0200	1.2	20.0
Butadiene	Ave	0.2909	0.3127		0.0215	0.0200	7.5	30.0
Bromomethane	Ave	0.2150	0.2223	0.0500	0.0207	0.0200	3.4	20.0
Chloroethane	Ave	0.2199	0.2452	0.0500	0.0223	0.0200	11.5	20.0
Dichlorofluoromethane	Ave	0.5069	0.5584		0.0220	0.0200	10.2	20.0
Trichlorofluoromethane	Ave	0.4172	0.4225	0.1000	0.0203	0.0200	1.3	20.0
Ethyl ether	Ave	0.2286	0.2300		0.0201	0.0200	0.6	20.0
Acrolein	Ave	0.0341	0.0543		0.159	0.100	59.1*	50.0
1,1-Dichloroethene	Ave	0.4790	0.4601	0.1000	0.0192	0.0200	-4.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2481	0.0500	0.0194	0.0200	-2.9	20.0
Acetone	Lin1		0.0845	0.0100	0.0317	0.0400	-20.7	50.0
Iodomethane	Ave	0.4353	0.4584		0.0211	0.0200	5.3	20.0
Carbon disulfide	Ave	0.8373	0.7252	0.1000	0.0173	0.0200	-13.4	20.0
3-Chloro-1-propene	Ave	0.3607	0.3451		0.0191	0.0200	-4.3	20.0
Methyl acetate	Ave	0.2190	0.2129	0.1000	0.0972	0.100	-2.8	20.0
Methylene Chloride	Ave	0.3828	0.3604	0.1000	0.0188	0.0200	-5.9	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0282		0.215	0.200	7.6	50.0
Acrylonitrile	Ave	0.0984	0.1032		0.210	0.200	4.8	20.0
Methyl tert-butyl ether	Ave	0.8254	0.8372	0.1000	0.0203	0.0200	1.4	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3345	0.1000	0.0192	0.0200	-3.8	20.0
Hexane	Ave	0.2621	0.2567		0.0196	0.0200	-2.0	20.0
1,1-Dichloroethane	Ave	0.4365	0.4281	0.2000	0.0196	0.0200	-1.9	20.0
Vinyl acetate	Ave	0.4147	0.3918		0.0189	0.0200	-5.5	50.0
2-Butanone (MEK)	Ave	0.1151	0.1224	0.0100	0.0426	0.0400	6.4	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3542	0.1000	0.0194	0.0200	-2.9	20.0
2,2-Dichloropropane	Ave	0.1941	0.1822		0.0188	0.0200	-6.1	20.0
Chlorobromomethane	Ave	0.2064	0.2118		0.0205	0.0200	2.6	20.0
Tetrahydrofuran	Ave	0.0782	0.0777		0.0398	0.0400	-0.6	20.0
Chloroform	Ave	0.4131	0.4211	0.2000	0.0204	0.0200	1.9	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.3065	0.1000	0.0206	0.0200	2.9	20.0
Cyclohexane	Ave	0.2819	0.2737	0.1000	0.0194	0.0200	-2.9	20.0
1,1-Dichloropropene	Ave	0.3510	0.3315		0.0189	0.0200	-5.6	20.0
Carbon tetrachloride	Ave	0.2744	0.2728	0.1000	0.0199	0.0200	-0.6	20.0
Isobutyl alcohol	Ave	0.0085	0.0090		0.531	0.500	6.1	20.0
1,2-Dichloroethane	Ave	0.3781	0.3730	0.1000	0.0197	0.0200	-1.4	20.0
Benzene	Ave	1.041	1.037	0.5000	0.0199	0.0200	-0.4	20.0
n-Heptane	Lin1		0.1424		0.0168	0.0200	-15.8	20.0
Trichloroethene	Ave	0.2817	0.2733	0.1500	0.0194	0.0200	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.3031	0.1000	0.0193	0.0200	-3.4	20.0
1,2-Dichloropropane	Ave	0.2387	0.2474	0.1000	0.0207	0.0200	3.7	20.0
1,4-Dioxane	Ave	0.0030	0.0033		0.443	0.400	10.8	50.0
Dibromomethane	Ave	0.1687	0.1663		0.0197	0.0200	-1.4	20.0
Dichlorobromomethane	Ave	0.3121	0.3023	0.1500	0.0194	0.0200	-3.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1779		0.0210	0.0200	5.2	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3907	0.1500	0.0218	0.0200	8.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2443	0.0500	0.0412	0.0400	2.9	20.0
Toluene	Ave	1.480	1.413	0.4000	0.0191	0.0200	-4.5	20.0
trans-1,3-Dichloropropene	Lin1		0.4109	0.1000	0.0168	0.0200	-15.9	20.0
Ethyl methacrylate	Ave	0.4079	0.4428		0.0217	0.0200	8.5	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2990	0.1000	0.0199	0.0200	-0.5	20.0
1,3-Dichloropropane	Ave	0.5821	0.5487		0.0189	0.0200	-5.7	20.0
Tetrachloroethene	Ave	0.3436	0.3278	0.1500	0.0191	0.0200	-4.6	20.0
2-Hexanone	Ave	0.2026	0.2188	0.0500	0.0432	0.0400	8.0	20.0
Chlorodibromomethane	Lin1		0.2534		0.0173	0.0200	-13.3	20.0
Ethylene Dibromide	Ave	0.3086	0.3139		0.0203	0.0200	1.7	20.0
Chlorobenzene	Ave	0.996	0.9792	0.3000	0.0197	0.0200	-1.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.3082		0.0202	0.0200	1.2	20.0
Ethylbenzene	Ave	0.5054	0.4868		0.0193	0.0200	-3.7	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6106		0.0191	0.0200	-4.5	20.0
o-Xylene	Ave	0.6325	0.6033		0.0191	0.0200	-4.6	20.0
Styrene	Ave	1.043	1.068	0.3000	0.0205	0.0200	2.4	20.0
Bromoform	Lin1		0.1338	0.1000	0.0166	0.0200	-17.1	20.0
Isopropylbenzene	Ave	1.482	1.476	0.1000	0.0199	0.0200	-0.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.8038	0.3000	0.0213	0.0200	6.7	20.0
Bromobenzene	Ave	0.7530	0.7621		0.0202	0.0200	1.2	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2807		0.0199	0.0200	-0.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.0976		0.0179	0.0200	-10.3	20.0
N-Propylbenzene	Ave	0.7275	0.7555		0.0208	0.0200	3.8	20.0
2-Chlorotoluene	Ave	0.7100	0.7027		0.0198	0.0200	-1.0	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.248		0.0202	0.0200	1.2	20.0
4-Chlorotoluene	Ave	0.7119	0.7423		0.0209	0.0200	4.3	20.0
tert-Butylbenzene	Ave	2.002	1.877		0.0188	0.0200	-6.2	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.374		0.0203	0.0200	1.4	20.0
sec-Butylbenzene	Ave	0.5471	0.5588		0.0204	0.0200	2.1	20.0
1,3-Dichlorobenzene	Ave	1.429	1.429	0.6000	0.0200	0.0200	0.0	20.0
4-Isopropyltoluene	Ave	2.234	2.314		0.0207	0.0200	3.6	20.0
1,4-Dichlorobenzene	Ave	1.488	1.507	0.5000	0.0202	0.0200	1.2	20.0
n-Butylbenzene	Ave	1.947	1.835		0.0189	0.0200	-5.7	20.0
1,2-Dichlorobenzene	Ave	1.428	1.430	0.4000	0.0200	0.0200	0.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1570	0.0500	0.0190	0.0200	-5.2	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.8250	0.2000	0.0198	0.0200	-1.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2855		0.0172	0.0200	-14.1	20.0
Naphthalene	Ave	2.550	2.625		0.0206	0.0200	3.0	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.8077		0.0195	0.0200	-2.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2034		0.0185	0.0200	-7.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2643		0.0181	0.0200	-9.5	20.0
Toluene-d8 (Surr)	Ave	1.264	1.172		0.0185	0.0200	-7.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4615		0.0201	0.0200	0.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-253710/23 Calibration Date: 10/31/2016 19:33

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959485.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2195	0.2007		0.0183	0.0200	-8.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2628		0.0180	0.0200	-10.0	20.0
Toluene-d8 (Surr)	Ave	1.264	1.168		0.0185	0.0200	-7.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4371		0.0190	0.0200	-4.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-253710/23 Calibration Date: 10/31/2016 19:33

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 16:20

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 18:20

Lab File ID: UX959485.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0378	0.0359		0.190	0.200	-4.9	20.0
Isopropyl ether	Ave	0.2403	0.2383		0.0198	0.0200	-0.9	20.0
2-Chloro-1,3-butadiene	Ave	0.3773	0.3737		0.0198	0.0200	-1.0	20.0
Tert-butyl ethyl ether	Ave	0.7846	0.7774		0.0198	0.0200	-0.9	20.0
Propionitrile	Ave	0.0386	0.0394		0.204	0.200	2.1	20.0
Ethyl acetate	Ave	0.2500	0.2360		0.0378	0.0400	-5.6	50.0
Methacrylonitrile	Ave	0.1638	0.1653		0.202	0.200	0.9	20.0
Tert-amyl methyl ether	Ave	0.7745	0.7819		0.0202	0.0200	1.0	20.0
n-Butanol	Ave	0.0067	0.0070		0.526	0.500	5.2	20.0
Ethyl acrylate	Ave	0.3245	0.3193		0.0197	0.0200	-1.6	20.0
Methyl methacrylate	Ave	0.2285	0.2347		0.0411	0.0400	2.7	20.0
2-Nitropropane	Ave	0.0465	0.0446		0.0384	0.0400	-4.1	20.0
n-Butyl acetate	Ave	0.4424	0.4390		0.0198	0.0200	-0.8	30.0
1-Chlorohexane	Ave	0.4179	0.3933		0.0188	0.0200	-5.9	20.0
Cyclohexanone	Ave	0.0195	0.0199		0.205	0.200	2.3	20.0
Pentachloroethane	Lin1		0.3010		0.0457	0.0400	14.3	20.0
1,2,3-Trimethylbenzene	Ave	2.609	2.524		0.0193	0.0200	-3.3	20.0
Benzyl chloride	Lin1		0.2112		0.0149	0.0200	-25.4*	20.0
1,3,5-Trichlorobenzene	Ave	0.9371	0.8841		0.0189	0.0200	-5.7	20.0
2-Methylnaphthalene	Lin1		1.173		0.0324	0.0400	-19.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-273734/3 Calibration Date: 04/07/2017 08:52

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962956.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2838	0.1000	0.0192	0.0200	-4.1	20.0
Chloromethane	Ave	0.3526	0.4102	0.1000	0.0233	0.0200	16.3	20.0
Vinyl chloride	Ave	0.3415	0.3824	0.1000	0.0224	0.0200	12.0	20.0
Butadiene	Ave	0.2909	0.2717		0.0187	0.0200	-6.6	20.0
Bromomethane	Ave	0.2150	0.2269	0.0500	0.0211	0.0200	5.5	20.0
Chloroethane	Ave	0.2199	0.2647	0.0500	0.0241	0.0200	20.3*	20.0
Dichlorofluoromethane	Ave	0.5069	0.6006		0.0237	0.0200	18.5	20.0
Trichlorofluoromethane	Ave	0.4172	0.3885	0.1000	0.0186	0.0200	-6.9	20.0
Ethyl ether	Ave	0.2286	0.2206		0.0193	0.0200	-3.5	20.0
Acrolein	Ave	0.0341	0.0393		0.115	0.100	15.1	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2239	0.0500	0.0175	0.0200	-12.4	20.0
1,1-Dichloroethene	Ave	0.4790	0.4947	0.1000	0.0207	0.0200	3.3	20.0
Acetone	Lin1		0.1006	0.0100	0.0380	0.0400	-5.1	50.0
Iodomethane	Ave	0.4353	0.4740		0.0218	0.0200	8.9	20.0
Carbon disulfide	Ave	0.8373	0.8651	0.1000	0.0207	0.0200	3.3	20.0
3-Chloro-1-propene	Ave	0.3607	0.3085		0.0171	0.0200	-14.5	20.0
Methyl acetate	Ave	0.2190	0.2051	0.1000	0.0937	0.100	-6.3	20.0
Methylene Chloride	Ave	0.3828	0.3960	0.1000	0.0207	0.0200	3.4	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0259		0.197	0.200	-1.3	50.0
Acrylonitrile	Ave	0.0984	0.1105		0.225	0.200	12.3	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7573	0.1000	0.0183	0.0200	-8.3	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3683	0.1000	0.0212	0.0200	5.9	20.0
Hexane	Ave	0.2621	0.2185		0.0167	0.0200	-16.6	20.0
1,1-Dichloroethane	Ave	0.4365	0.4196	0.2000	0.0192	0.0200	-3.9	20.0
Vinyl acetate	Ave	0.4147	0.3886		0.0187	0.0200	-6.3	50.0
2-Butanone (MEK)	Ave	0.1151	0.1322	0.0100	0.0460	0.0400	14.9	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3624	0.1000	0.0199	0.0200	-0.6	20.0
2,2-Dichloropropane	Ave	0.1941	0.1477		0.0152	0.0200	-23.9*	20.0
Chlorobromomethane	Ave	0.2064	0.1956		0.0190	0.0200	-5.2	20.0
Tetrahydrofuran	Ave	0.0782	0.0801		0.0410	0.0400	2.5	20.0
Chloroform	Ave	0.4131	0.4322	0.2000	0.0209	0.0200	4.6	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2615	0.1000	0.0176	0.0200	-12.2	20.0
Cyclohexane	Ave	0.2819	0.2650	0.1000	0.0188	0.0200	-6.0	20.0
1,1-Dichloropropene	Ave	0.3510	0.3363		0.0192	0.0200	-4.2	20.0
Carbon tetrachloride	Ave	0.2744	0.2615	0.1000	0.0191	0.0200	-4.7	20.0
Isobutyl alcohol	Ave	0.0085	0.0076		0.445	0.500	-11.0	20.0
1,2-Dichloroethane	Ave	0.3781	0.3542	0.1000	0.0187	0.0200	-6.3	20.0
Benzene	Ave	1.041	1.069	0.5000	0.0205	0.0200	2.7	20.0
n-Heptane	Lin1		0.1406		0.0166	0.0200	-16.9	20.0
Trichloroethene	Ave	0.2817	0.2715	0.1500	0.0193	0.0200	-3.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-273734/3 Calibration Date: 04/07/2017 08:52

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962956.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2701	0.1000	0.0172	0.0200	-13.9	20.0
1,2-Dichloropropane	Ave	0.2387	0.2388	0.1000	0.0200	0.0200	0.0	20.0
1,4-Dioxane	Ave	0.0030	0.0027		0.365	0.400	-8.7	50.0
Dibromomethane	Ave	0.1687	0.1868		0.0221	0.0200	10.7	20.0
Dichlorobromomethane	Ave	0.3121	0.3180	0.1500	0.0204	0.0200	1.9	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1612		0.0381	0.0400	-4.7	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3884	0.1500	0.0216	0.0200	8.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2424	0.0500	0.0409	0.0400	2.2	20.0
Toluene	Ave	1.480	1.344	0.4000	0.0182	0.0200	-9.2	20.0
trans-1,3-Dichloropropene	Lin1		0.4130	0.1000	0.0169	0.0200	-15.5	20.0
Ethyl methacrylate	Ave	0.4079	0.3665		0.0180	0.0200	-10.2	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2787	0.1000	0.0186	0.0200	-7.2	20.0
1,3-Dichloropropane	Ave	0.5821	0.5089		0.0175	0.0200	-12.6	20.0
Tetrachloroethene	Ave	0.3436	0.3118	0.1500	0.0182	0.0200	-9.2	20.0
2-Hexanone	Ave	0.2026	0.2157	0.0500	0.0426	0.0400	6.5	20.0
Chlorodibromomethane	Lin1		0.2585		0.0177	0.0200	-11.6	20.0
Ethylene Dibromide	Ave	0.3086	0.2797		0.0181	0.0200	-9.4	20.0
Chlorobenzene	Ave	0.996	0.8884	0.3000	0.0178	0.0200	-10.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2842		0.0187	0.0200	-6.7	20.0
Ethylbenzene	Ave	0.5054	0.4552		0.0180	0.0200	-9.9	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.5820		0.0182	0.0200	-9.0	20.0
o-Xylene	Ave	0.6325	0.5641		0.0178	0.0200	-10.8	20.0
Styrene	Ave	1.043	0.9875	0.3000	0.0189	0.0200	-5.3	20.0
Bromoform	Lin1		0.1641	0.1000	0.0202	0.0200	0.8	20.0
Isopropylbenzene	Ave	1.482	1.373	0.1000	0.0185	0.0200	-7.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7129	0.3000	0.0189	0.0200	-5.4	20.0
Bromobenzene	Ave	0.7530	0.6612		0.0176	0.0200	-12.2	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2570		0.0183	0.0200	-8.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.2006		0.0369	0.0200	84.5*	20.0
N-Propylbenzene	Ave	0.7275	0.6448		0.0177	0.0200	-11.4	20.0
2-Chlorotoluene	Ave	0.7100	0.5853		0.0165	0.0200	-17.6	20.0
1,3,5-Trimethylbenzene	Ave	2.221	1.935		0.0174	0.0200	-12.9	20.0
4-Chlorotoluene	Ave	0.7119	0.6376		0.0179	0.0200	-10.4	20.0
tert-Butylbenzene	Ave	2.002	1.714		0.0171	0.0200	-14.4	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.076		0.0177	0.0200	-11.3	20.0
sec-Butylbenzene	Ave	0.5471	0.4793		0.0175	0.0200	-12.4	20.0
1,3-Dichlorobenzene	Ave	1.429	1.259	0.6000	0.0176	0.0200	-11.9	20.0
4-Isopropyltoluene	Ave	2.234	1.970		0.0176	0.0200	-11.8	20.0
1,4-Dichlorobenzene	Ave	1.488	1.301	0.5000	0.0175	0.0200	-12.6	20.0
n-Butylbenzene	Ave	1.947	1.648		0.0169	0.0200	-15.4	20.0
1,2-Dichlorobenzene	Ave	1.428	1.224	0.4000	0.0171	0.0200	-14.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-273734/3 Calibration Date: 04/07/2017 08:52

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962956.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1365	0.0500	0.0166	0.0200	-17.1	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.6307	0.2000	0.0151	0.0200	-24.3	50.0
Hexachlorobutadiene	Ave	0.3322	0.2720		0.0164	0.0200	-18.1	20.0
Naphthalene	Ave	2.550	1.896		0.0149	0.0200	-25.6	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.5614		0.0135	0.0200	-32.4*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2359		0.0215	0.0200	7.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2973		0.0204	0.0200	1.8	20.0
Toluene-d8 (Surr)	Ave	1.264	1.202		0.0190	0.0200	-4.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4368		0.0190	0.0200	-4.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCV 240-273734/5 Calibration Date: 04/07/2017 09:40

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 16:20

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 18:20

Lab File ID: UX962958.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0378	0.0354		0.187	0.200	-6.3	20.0
Isopropyl ether	Ave	0.2403	0.2353		0.0196	0.0200	-2.1	20.0
2-Chloro-1,3-butadiene	Ave	0.3773	0.3726		0.0198	0.0200	-1.2	20.0
Tert-butyl ethyl ether	Ave	0.7846	0.7384		0.0188	0.0200	-5.9	20.0
Propionitrile	Ave	0.0386	0.0410		0.212	0.200	6.1	20.0
Ethyl acetate	Ave	0.2500	0.2474		0.0396	0.0400	-1.0	50.0
Methacrylonitrile	Ave	0.1638	0.1756		0.215	0.200	7.3	20.0
Tert-amyl methyl ether	Ave	0.7745	0.7429		0.0192	0.0200	-4.1	20.0
n-Butanol	Ave	0.0067	0.0070		0.525	0.500	5.1	20.0
Ethyl acrylate	Ave	0.3245	0.3230		0.0199	0.0200	-0.5	20.0
Methyl methacrylate	Ave	0.2285	0.2421		0.0424	0.0400	6.0	20.0
2-Nitropropane	Ave	0.0465	0.0343		0.0295	0.0400	-26.2*	20.0
n-Butyl acetate	Ave	0.4424	0.4054		0.0183	0.0200	-8.4	20.0
1-Chlorohexane	Ave	0.4179	0.3339		0.0160	0.0200	-20.1*	20.0
Cyclohexanone	Ave	0.0195	0.0189		0.194	0.200	-2.8	20.0
Pentachloroethane	Lin1		0.3242		0.0492	0.0400	23.1	
1,2,3-Trimethylbenzene	Ave	2.609	2.242		0.0172	0.0200	-14.1	20.0
Benzyl chloride	Lin1		0.2426		0.0170	0.0200	-14.8	
1,3,5-Trichlorobenzene	Ave	0.9371	0.7841		0.0167	0.0200	-16.3	20.0
2-Methylnaphthalene	Lin1		0.7326		0.0205	0.0400	-48.7*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-273938/3 Calibration Date: 04/10/2017 08:36

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962992.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.3570	0.1000	0.0241	0.0200	20.6*	20.0
Chloromethane	Ave	0.3526	0.3652	0.1000	0.0207	0.0200	3.6	20.0
Vinyl chloride	Ave	0.3415	0.3778	0.1000	0.0221	0.0200	10.6	20.0
Butadiene	Ave	0.2909	0.2698		0.0186	0.0200	-7.2	20.0
Bromomethane	Ave	0.2150	0.2145	0.0500	0.0199	0.0200	-0.3	20.0
Chloroethane	Ave	0.2199	0.2506	0.0500	0.0228	0.0200	14.0	20.0
Dichlorofluoromethane	Ave	0.5069	0.5425		0.0214	0.0200	7.0	20.0
Trichlorofluoromethane	Ave	0.4172	0.4490	0.1000	0.0215	0.0200	7.6	20.0
Ethyl ether	Ave	0.2286	0.2185		0.0191	0.0200	-4.4	20.0
Acrolein	Ave	0.0341	0.0388		0.114	0.100	13.9	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2279	0.0500	0.0178	0.0200	-10.8	20.0
1,1-Dichloroethene	Ave	0.4790	0.4746	0.1000	0.0198	0.0200	-0.9	20.0
Acetone	Lin1		0.1007	0.0100	0.0380	0.0400	-4.9	50.0
Iodomethane	Ave	0.4353	0.4555		0.0209	0.0200	4.6	20.0
Carbon disulfide	Ave	0.8373	0.6831	0.1000	0.0163	0.0200	-18.4	20.0
3-Chloro-1-propene	Ave	0.3607	0.3044		0.0169	0.0200	-15.6	20.0
Methyl acetate	Ave	0.2190	0.1906	0.1000	0.0870	0.100	-13.0	20.0
Methylene Chloride	Ave	0.3828	0.3948	0.1000	0.0206	0.0200	3.1	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0213		0.162	0.200	-18.9	50.0
Acrylonitrile	Ave	0.0984	0.0989		0.201	0.200	0.5	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7522	0.1000	0.0182	0.0200	-8.9	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3645	0.1000	0.0210	0.0200	4.8	20.0
Hexane	Ave	0.2621	0.2360		0.0180	0.0200	-10.0	20.0
1,1-Dichloroethane	Ave	0.4365	0.4086	0.2000	0.0187	0.0200	-6.4	20.0
Vinyl acetate	Ave	0.4147	0.3783		0.0182	0.0200	-8.8	50.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3464	0.1000	0.0190	0.0200	-5.0	20.0
2,2-Dichloropropane	Ave	0.1941	0.1376		0.0142	0.0200	-29.1*	20.0
2-Butanone (MEK)	Ave	0.1151	0.1214	0.0100	0.0422	0.0400	5.5	20.0
Chlorobromomethane	Ave	0.2064	0.1967		0.0191	0.0200	-4.7	20.0
Tetrahydrofuran	Ave	0.0782	0.0710		0.0363	0.0400	-9.1	20.0
Chloroform	Ave	0.4131	0.4204	0.2000	0.0204	0.0200	1.8	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2616	0.1000	0.0176	0.0200	-12.2	20.0
Cyclohexane	Ave	0.2819	0.2465	0.1000	0.0175	0.0200	-12.6	20.0
1,1-Dichloropropene	Ave	0.3510	0.3097		0.0176	0.0200	-11.8	20.0
Carbon tetrachloride	Ave	0.2744	0.2462	0.1000	0.0179	0.0200	-10.3	20.0
Isobutyl alcohol	Ave	0.0085	0.0070		0.408	0.500	-18.4	20.0
Benzene	Ave	1.041	1.039	0.5000	0.0200	0.0200	-0.2	20.0
1,2-Dichloroethane	Ave	0.3781	0.3416	0.1000	0.0181	0.0200	-9.7	20.0
n-Heptane	Lin1		0.1377		0.0163	0.0200	-18.7	20.0
Trichloroethene	Ave	0.2817	0.2680	0.1500	0.0190	0.0200	-4.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-273938/3 Calibration Date: 04/10/2017 08:36

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962992.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2666	0.1000	0.0170	0.0200	-15.0	20.0
1,2-Dichloropropane	Ave	0.2387	0.2211	0.1000	0.0185	0.0200	-7.4	20.0
1,4-Dioxane	Ave	0.0030	0.0027		0.360	0.400	-9.9	50.0
Dibromomethane	Ave	0.1687	0.1743		0.0207	0.0200	3.3	20.0
Dichlorobromomethane	Ave	0.3121	0.3050	0.1500	0.0195	0.0200	-2.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1535		0.0363	0.0400	-9.2	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3911	0.1500	0.0218	0.0200	8.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2210	0.0500	0.0373	0.0400	-6.8	20.0
Toluene	Ave	1.480	1.328	0.4000	0.0180	0.0200	-10.2	20.0
trans-1,3-Dichloropropene	Lin1		0.4215	0.1000	0.0172	0.0200	-13.8	20.0
Ethyl methacrylate	Ave	0.4079	0.3593		0.0176	0.0200	-11.9	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2779	0.1000	0.0185	0.0200	-7.5	20.0
1,3-Dichloropropane	Ave	0.5821	0.5042		0.0173	0.0200	-13.4	20.0
Tetrachloroethene	Ave	0.3436	0.3121	0.1500	0.0182	0.0200	-9.2	20.0
2-Hexanone	Ave	0.2026	0.2030	0.0500	0.0401	0.0400	0.2	20.0
Chlorodibromomethane	Lin1		0.2486		0.0170	0.0200	-14.9	20.0
Ethylene Dibromide	Ave	0.3086	0.2744		0.0178	0.0200	-11.1	20.0
Chlorobenzene	Ave	0.996	0.8842	0.3000	0.0178	0.0200	-11.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2729		0.0179	0.0200	-10.4	20.0
Ethylbenzene	Ave	0.5054	0.4518		0.0179	0.0200	-10.6	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.5743		0.0180	0.0200	-10.2	20.0
o-Xylene	Ave	0.6325	0.5666		0.0179	0.0200	-10.4	20.0
Styrene	Ave	1.043	0.9596	0.3000	0.0184	0.0200	-8.0	20.0
Bromoform	Lin1		0.1644	0.1000	0.0202	0.0200	1.0	20.0
Isopropylbenzene	Ave	1.482	1.333	0.1000	0.0180	0.0200	-10.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.6689	0.3000	0.0178	0.0200	-11.2	20.0
Bromobenzene	Ave	0.7530	0.6994		0.0186	0.0200	-7.1	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2370		0.0168	0.0200	-15.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1925		0.0354	0.0200	77.0*	20.0
N-Propylbenzene	Ave	0.7275	0.6431		0.0177	0.0200	-11.6	20.0
2-Chlorotoluene	Ave	0.7100	0.5946		0.0167	0.0200	-16.3	20.0
1,3,5-Trimethylbenzene	Ave	2.221	1.919		0.0173	0.0200	-13.6	20.0
4-Chlorotoluene	Ave	0.7119	0.6275		0.0176	0.0200	-11.9	20.0
tert-Butylbenzene	Ave	2.002	1.766		0.0176	0.0200	-11.8	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.104		0.0180	0.0200	-10.1	20.0
sec-Butylbenzene	Ave	0.5471	0.4713		0.0172	0.0200	-13.9	20.0
1,3-Dichlorobenzene	Ave	1.429	1.251	0.6000	0.0175	0.0200	-12.5	20.0
4-Isopropyltoluene	Ave	2.234	1.957		0.0175	0.0200	-12.4	20.0
1,4-Dichlorobenzene	Ave	1.488	1.287	0.5000	0.0173	0.0200	-13.5	20.0
n-Butylbenzene	Ave	1.947	1.580		0.0162	0.0200	-18.8	20.0
1,2-Dichlorobenzene	Ave	1.428	1.196	0.4000	0.0167	0.0200	-16.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-273938/3 Calibration Date: 04/10/2017 08:36

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX962992.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1261	0.0500	0.0154	0.0200	-23.1	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.5980	0.2000	0.0144	0.0200	-28.2	50.0
Hexachlorobutadiene	Ave	0.3322	0.2305		0.0139	0.0200	-30.6*	20.0
Naphthalene	Ave	2.550	1.755		0.0138	0.0200	-31.2	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.5137		0.0124	0.0200	-38.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2248		0.0205	0.0200	2.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2796		0.0191	0.0200	-4.3	20.0
Toluene-d8 (Surr)	Ave	1.264	1.168		0.0185	0.0200	-7.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4428		0.0193	0.0200	-3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-274127/3 Calibration Date: 04/11/2017 08:51

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963042.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2865	0.1000	0.0194	0.0200	-3.2	20.0
Chloromethane	Ave	0.3526	0.3524	0.1000	0.0200	0.0200	-0.0	20.0
Vinyl chloride	Ave	0.3415	0.3468	0.1000	0.0203	0.0200	1.5	20.0
Butadiene	Ave	0.2909	0.2621		0.0180	0.0200	-9.9	20.0
Bromomethane	Ave	0.2150	0.2098	0.0500	0.0195	0.0200	-2.4	20.0
Chloroethane	Ave	0.2199	0.2316	0.0500	0.0211	0.0200	5.3	20.0
Dichlorofluoromethane	Ave	0.5069	0.5128		0.0202	0.0200	1.2	20.0
Trichlorofluoromethane	Ave	0.4172	0.3667	0.1000	0.0176	0.0200	-12.1	20.0
Ethyl ether	Ave	0.2286	0.2102		0.0184	0.0200	-8.1	20.0
Acrolein	Ave	0.0341	0.0413		0.121	0.100	21.1	50.0
1,1-Dichloroethene	Ave	0.4790	0.4550	0.1000	0.0190	0.0200	-5.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2001	0.0500	0.0157	0.0200	-21.7*	20.0
Acetone	Lin1		0.1056	0.0100	0.0399	0.0400	-0.2	50.0
Iodomethane	Ave	0.4353	0.3916		0.0180	0.0200	-10.0	20.0
Carbon disulfide	Ave	0.8373	0.6096	0.1000	0.0146	0.0200	-27.2*	20.0
3-Chloro-1-propene	Ave	0.3607	0.2991		0.0166	0.0200	-17.1	20.0
Methyl acetate	Ave	0.2190	0.1894	0.1000	0.0864	0.100	-13.6	20.0
Methylene Chloride	Ave	0.3828	0.3599	0.1000	0.0188	0.0200	-6.0	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0254		0.194	0.200	-3.2	50.0
Acrylonitrile	Ave	0.0984	0.1034		0.210	0.200	5.0	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7312	0.1000	0.0177	0.0200	-11.4	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3344	0.1000	0.0192	0.0200	-3.8	20.0
Hexane	Ave	0.2621	0.2004		0.0153	0.0200	-23.5*	20.0
1,1-Dichloroethane	Ave	0.4365	0.3981	0.2000	0.0182	0.0200	-8.8	20.0
Vinyl acetate	Ave	0.4147	0.3581		0.0173	0.0200	-13.6	50.0
2-Butanone (MEK)	Ave	0.1151	0.1284	0.0100	0.0446	0.0400	11.6	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3517	0.1000	0.0193	0.0200	-3.5	20.0
2,2-Dichloropropane	Ave	0.1941	0.1771		0.0182	0.0200	-8.8	20.0
Chlorobromomethane	Ave	0.2064	0.1989		0.0193	0.0200	-3.6	20.0
Tetrahydrofuran	Ave	0.0782	0.0734		0.0375	0.0400	-6.1	20.0
Chloroform	Ave	0.4131	0.4195	0.2000	0.0203	0.0200	1.6	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2678	0.1000	0.0180	0.0200	-10.1	20.0
Cyclohexane	Ave	0.2819	0.2390	0.1000	0.0170	0.0200	-15.2	20.0
1,1-Dichloropropene	Ave	0.3510	0.3253		0.0185	0.0200	-7.3	20.0
Carbon tetrachloride	Ave	0.2744	0.2568	0.1000	0.0187	0.0200	-6.4	20.0
Isobutyl alcohol	Ave	0.0085	0.0080		0.472	0.500	-5.7	20.0
1,2-Dichloroethane	Ave	0.3781	0.3357	0.1000	0.0178	0.0200	-11.2	20.0
Benzene	Ave	1.041	1.031	0.5000	0.0198	0.0200	-1.0	20.0
n-Heptane	Lin1		0.1196		0.0140	0.0200	-29.8*	20.0
Trichloroethene	Ave	0.2817	0.2630	0.1500	0.0187	0.0200	-6.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-274127/3 Calibration Date: 04/11/2017 08:51

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963042.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2427	0.1000	0.0155	0.0200	-22.7*	20.0
1,2-Dichloropropane	Ave	0.2387	0.2321	0.1000	0.0195	0.0200	-2.7	20.0
1,4-Dioxane	Ave	0.0030	0.0024		0.328	0.400	-18.0	50.0
Dibromomethane	Ave	0.1687	0.1716		0.0203	0.0200	1.7	20.0
Dichlorobromomethane	Ave	0.3121	0.2767	0.1500	0.0177	0.0200	-11.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1541		0.0364	0.0400	-8.9	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3659	0.1500	0.0204	0.0200	1.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2245	0.0500	0.0378	0.0400	-5.4	20.0
Toluene	Ave	1.480	1.459	0.4000	0.0197	0.0200	-1.4	20.0
trans-1,3-Dichloropropene	Lin1		0.4382	0.1000	0.0179	0.0200	-10.4	20.0
Ethyl methacrylate	Ave	0.4079	0.4056		0.0199	0.0200	-0.6	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2987	0.1000	0.0199	0.0200	-0.6	20.0
1,3-Dichloropropane	Ave	0.5821	0.5480		0.0188	0.0200	-5.9	20.0
Tetrachloroethene	Ave	0.3436	0.3495	0.1500	0.0203	0.0200	1.7	20.0
2-Hexanone	Ave	0.2026	0.2411	0.0500	0.0476	0.0400	19.0	20.0
Chlorodibromomethane	Lin1		0.2647		0.0181	0.0200	-9.5	20.0
Ethylene Dibromide	Ave	0.3086	0.3074		0.0199	0.0200	-0.4	20.0
Chlorobenzene	Ave	0.996	0.9880	0.3000	0.0198	0.0200	-0.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2981		0.0196	0.0200	-2.1	20.0
Ethylbenzene	Ave	0.5054	0.5121		0.0203	0.0200	1.3	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6234		0.0195	0.0200	-2.5	20.0
o-Xylene	Ave	0.6325	0.6208		0.0196	0.0200	-1.8	20.0
Styrene	Ave	1.043	1.081	0.3000	0.0207	0.0200	3.7	20.0
Bromoform	Lin1		0.1556	0.1000	0.0192	0.0200	-4.2	20.0
Isopropylbenzene	Ave	1.482	1.510	0.1000	0.0204	0.0200	1.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7351	0.3000	0.0195	0.0200	-2.5	20.0
Bromobenzene	Ave	0.7530	0.7039		0.0187	0.0200	-6.5	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2768		0.0197	0.0200	-1.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1393		0.0256	0.0200	28.1*	20.0
N-Propylbenzene	Ave	0.7275	0.6959		0.0191	0.0200	-4.3	20.0
2-Chlorotoluene	Ave	0.7100	0.6154		0.0173	0.0200	-13.3	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.039		0.0184	0.0200	-8.2	20.0
4-Chlorotoluene	Ave	0.7119	0.6603		0.0185	0.0200	-7.3	20.0
tert-Butylbenzene	Ave	2.002	1.976		0.0197	0.0200	-1.3	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.210		0.0189	0.0200	-5.5	20.0
sec-Butylbenzene	Ave	0.5471	0.5110		0.0187	0.0200	-6.6	20.0
1,3-Dichlorobenzene	Ave	1.429	1.368	0.6000	0.0191	0.0200	-4.3	20.0
4-Isopropyltoluene	Ave	2.234	2.142		0.0192	0.0200	-4.1	20.0
1,4-Dichlorobenzene	Ave	1.488	1.429	0.5000	0.0192	0.0200	-4.0	20.0
n-Butylbenzene	Ave	1.947	1.726		0.0177	0.0200	-11.4	20.0
1,2-Dichlorobenzene	Ave	1.428	1.346	0.4000	0.0189	0.0200	-5.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVIS 240-274127/3 Calibration Date: 04/11/2017 08:51

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963042.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1382	0.0500	0.0168	0.0200	-16.1	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.7072	0.2000	0.0170	0.0200	-15.1	50.0
Hexachlorobutadiene	Ave	0.3322	0.2803		0.0169	0.0200	-15.6	20.0
Naphthalene	Ave	2.550	2.116		0.0166	0.0200	-17.0	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.6544		0.0158	0.0200	-21.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2011		0.0183	0.0200	-8.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2676		0.0183	0.0200	-8.4	20.0
Toluene-d8 (Surr)	Ave	1.264	1.271		0.0201	0.0200	0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4633		0.0202	0.0200	0.9	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: UXJ1124.D Lab Sample ID: MB 240-272768/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX11 Date Analyzed: 03/31/2017 11:44

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-272768/4	UXJ1121.D	03/31/2017 10:35
TB-032917	240-77416-5	UXJ1127.D	03/31/2017 12:52
	200-37906-B-3 MS	UXJ1145.D	03/31/2017 19:41
	200-37906-B-3 MSD	UXJ1146.D	03/31/2017 20:04

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272768/6

Matrix: Water | Lab File ID: UXJ1124.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-272768/6

Matrix: Water | Lab File ID: UXJ1124.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 03/31/2017 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 272768 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: UX962960.D Lab Sample ID: MB 240-273734/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/07/2017 10:28

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-273734/4	UX962957.D	04/07/2017 09:16
MRC-MW37A-032917	240-77416-1	UX962966.D	04/07/2017 13:45
MRC-MW37B-032917	240-77416-2	UX962967.D	04/07/2017 14:09
MRC-MW114A-032917	240-77416-3	UX962968.D	04/07/2017 14:33
MRC-MW113A-032917	240-77416-4	UX962969.D	04/07/2017 14:57
MRC-MW102B-032917	240-77416-6	UX962970.D	04/07/2017 15:20
MRC-MW114A-032917 MS	240-77416-3 MS	UX962971.D	04/07/2017 15:44
MRC-MW114A-032917 MSD	240-77416-3 MSD	UX962972.D	04/07/2017 16:08

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-273734/7

Matrix: Water | Lab File ID: UX962960.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 10:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-273734/7

Matrix: Water | Lab File ID: UX962960.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 10:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	1.45		1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
108-70-3	1,3,5-Trichlorobenzene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: U1256401.D Lab Sample ID: MB 240-273820/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 04/07/2017 17:28

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-273820/4	U1256398.D	04/07/2017 16:15
MRC-MW21B-040317	240-77601-2	U1256403.D	04/07/2017 18:18
MRC-MW22A-040317	240-77601-3	U1256404.D	04/07/2017 18:43
MRC-MW19A-040317	240-77601-4	U1256405.D	04/07/2017 19:07
TB-040317	240-77601-5	U1256406.D	04/07/2017 19:32
MRC-MW14A-033017	240-77566-1	U1256407.D	04/07/2017 19:57
MRC-MW14C-033017	240-77566-2	U1256408.D	04/07/2017 20:20
MRC-MW106B/C-033017	240-77566-3	U1256409A.D	04/07/2017 20:44
MRC-MW107B/C-033017	240-77566-4	U1256410.D	04/07/2017 21:08
TB-033117	240-77566-5	U1256411.D	04/07/2017 21:32
MRC-MW38A-033117	240-77566-6	U1256412.D	04/07/2017 21:57
MRC-MW38B-033117	240-77566-7	U1256413.D	04/07/2017 22:22
MRC-DUP05-033017	240-77566-8	U1256414.D	04/07/2017 22:47
MRC-MW21A-040317	240-77601-1	U1256417A.D	04/07/2017 23:59
MRC-MW21B-040317 MS	240-77601-2 MS	U1256422.D	04/08/2017 02:02
MRC-MW21B-040317 MSD	240-77601-2 MSD	U1256423.D	04/08/2017 02:27

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-273820/7

Matrix: Water | Lab File ID: U1256401.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 17:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-273820/7

Matrix: Water | Lab File ID: U1256401.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 17:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273820 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-124
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: UX962996.D Lab Sample ID: MB 240-273938/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/10/2017 10:12

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-273938/4	UX962993.D	04/10/2017 09:00
	240-77684-A-1 MS	UX963005.D	04/10/2017 14:07
	240-77684-A-1 MSD	UX963006.D	04/10/2017 14:31
TB-040418	240-77761-1	UX963008.D	04/10/2017 15:19
MRC-MW50A-040417	240-77761-2	UX963009.D	04/10/2017 15:43
MRC-MW90B-040417	240-77761-3	UX963010.D	04/10/2017 16:07
MRC-MW96A-040417	240-77761-4	UX963011.D	04/10/2017 16:30
MRC-MW96B-040417	240-77761-5	UX963012.D	04/10/2017 16:54
MRC-MW17A-040517	240-77761-6	UX963013.D	04/10/2017 17:16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-273938/7

Matrix: Water | Lab File ID: UX962996.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 10:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-273938/7

Matrix: Water | Lab File ID: UX962996.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 10:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273938 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	1.57		1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: UXM1632.D Lab Sample ID: MB 240-274011/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 04/10/2017 14:19

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-274011/4	UXM1628.D	04/10/2017 12:46
MRC-MW114A-032917	240-77416-3	UXM1633.D	04/10/2017 14:43
MRC-MW113A-032917	240-77416-4	UXM1634.D	04/10/2017 15:06
MRC-MW114A-032917 MS	240-77416-3 MS	UXM1635.D	04/10/2017 15:30
MRC-MW114A-032917 MSD	240-77416-3 MSD	UXM1636.D	04/10/2017 15:53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274011/8

Matrix: Water | Lab File ID: UXM1632.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/10/2017 14:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274011 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-124
1868-53-7	Dibromofluoromethane (Surr)	89		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab File ID: UX963047.D Lab Sample ID: MB 240-274127/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/11/2017 10:51

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-274127/4	UX963043.D	04/11/2017 09:15
MRC-MW17A-040517	240-77761-6	UX963048.D	04/11/2017 12:10
MRC-MW17A-040517 MS	240-77761-6 MS	UX963064.D	04/11/2017 18:33
MRC-MW17A-040517 MSD	240-77761-6 MSD	UX963065.D	04/11/2017 18:55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274127/7

Matrix: Water | Lab File ID: UX963047.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 10:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274127/7

Matrix: Water | Lab File ID: UX963047.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 10:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.892	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MRC-MW37A-032917	240-77416-1	104	101	91	84
MRC-MW37B-032917	240-77416-2	106	105	95	90
MRC-MW114A-032917	240-77416-3	90	92	98	103
MRC-MW114A-032917	240-77416-3	102	102	92	88
MRC-MW113A-032917	240-77416-4	90	91	99	99
MRC-MW113A-032917	240-77416-4	106	104	93	91
TB-032917	240-77416-5	102	98	105	102
MRC-MW102B-032917	240-77416-6	99	103	91	89
MRC-MW14A-033017	240-77566-1	94	92	97	93
MRC-MW14C-033017	240-77566-2	91	95	97	93
MRC-MW106B/C-033017	240-77566-3	93	96	97	96
MRC-MW107B/C-033017	240-77566-4	91	94	96	95
TB-033117	240-77566-5	92	95	98	93
MRC-MW38A-033117	240-77566-6	94	93	97	96
MRC-MW38B-033117	240-77566-7	91	94	98	93
MRC-DUP05-033017	240-77566-8	91	94	98	95
MRC-MW21A-040317	240-77601-1	93	97	97	94
MRC-MW21B-040317	240-77601-2	91	95	96	95
MRC-MW22A-040317	240-77601-3	92	93	97	93
MRC-MW19A-040317	240-77601-4	93	94	96	94
TB-040317	240-77601-5	92	90	97	95
TB-040418	240-77761-1	103	103	90	85
MRC-MW50A-040417	240-77761-2	104	103	89	87
MRC-MW90B-040417	240-77761-3	104	104	92	88
MRC-MW96A-040417	240-77761-4	101	106	89	86
MRC-MW96B-040417	240-77761-5	101	103	91	89
MRC-MW17A-040517	240-77761-6	99	102	94	91
MRC-MW17A-040517	240-77761-6	94	94	96	93
	MB 240-272768/6	97	93	99	100
	MB 240-273734/7	101	104	93	91
	MB 240-273820/7	91	94	97	95
	MB 240-273938/7	105	105	90	88
	MB 240-274011/8	89	90	97	100
	MB 240-274127/7	92	93	94	94

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
	LCS 240-272768/4	99	99	98	98
	LCS 240-273734/4	102	101	92	95
	LCS 240-273820/4	93	91	96	96
	LCS 240-273938/4	106	101	94	95
	LCS 240-274011/4	89	91	101	101
	LCS 240-274127/4	96	92	96	100
MRC-MW114A-032917 MS	240-77416-3 MS	89	88	99	101
MRC-MW114A-032917 MS	240-77416-3 MS	106	99	92	97
MRC-MW21B-040317 MS	240-77601-2 MS	95	90	101	99
MRC-MW17A-040517 MS	240-77761-6 MS	96	92	97	96
	200-37906-B-3 MS	99	98	99	99
	240-77684-A-1 MS	102	103	91	95
MRC-MW114A-032917 MSD	240-77416-3 MSD	87	88	96	99
MRC-MW114A-032917 MSD	240-77416-3 MSD	103	97	95	95
MRC-MW21B-040317 MSD	240-77601-2 MSD	92	91	98	97
MRC-MW17A-040517 MSD	240-77761-6 MSD	96	95	97	101
	200-37906-B-3 MSD	106	105	103	103
	240-77684-A-1 MSD	106	104	92	97

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1121.D

Lab ID: LCS 240-272768/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	10.0	9.89	99	79-133	
1,1,2,2-Tetrachloroethane	10.0	9.54	95	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	8.44	84	65-151	
1,1,2-Trichloroethane	10.0	10.1	101	80-120	
1,1-Dichloroethane	10.0	9.75	97	77-121	
1,1-Dichloroethene	10.0	10.0	100	70-141	
1,2,4-Trichlorobenzene	10.0	9.32	93	53-137	
1,2-Dibromo-3-Chloropropane	10.0	8.74	87	46-140	
Ethylene Dibromide	10.0	9.60	96	80-126	
1,2-Dichlorobenzene	10.0	9.72	97	80-120	
1,2-Dichloroethane	10.0	9.96	100	76-130	
1,2-Dichloropropane	10.0	9.96	100	79-121	
1,3-Dichlorobenzene	10.0	9.82	98	80-120	
1,4-Dichlorobenzene	10.0	9.76	98	80-120	
2-Butanone (MEK)	20.0	15.9	80	54-122	
2-Hexanone	20.0	15.8	79	56-124	
4-Methyl-2-pentanone (MIBK)	20.0	18.4	92	60-131	
Acetone	20.0	11.8	59	46-120	
Benzene	10.0	9.75	97	80-120	
Dichlorobromomethane	10.0	9.62	96	76-125	
Bromoform	10.0	6.16	62	52-157	
Bromomethane	10.0	7.11	71	24-160	
Carbon disulfide	10.0	9.88	99	58-160	
Carbon tetrachloride	10.0	9.65	97	69-149	
Chlorobenzene	10.0	9.78	98	80-120	
Chloroethane	10.0	7.86	79	24-147	
Chloroform	10.0	9.93	99	80-120	
Chloromethane	10.0	7.96	80	50-135	
cis-1,2-Dichloroethene	10.0	10.1	101	80-120	
cis-1,3-Dichloropropene	10.0	9.28	93	75-120	
Cyclohexane	10.0	9.57	96	66-135	
Chlorodibromomethane	10.0	8.55	85	68-131	
Dichlorodifluoromethane	10.0	8.23	82	32-140	
Ethylbenzene	10.0	9.74	97	80-120	
Isopropylbenzene	10.0	9.79	98	80-120	
Methyl acetate	20.0	18.4	92	65-124	
Methyl tert-butyl ether	10.0	10.1	101	75-126	
Methylcyclohexane	10.0	9.02	90	71-122	
Methylene Chloride	10.0	10.5	105	68-136	
Styrene	10.0	9.77	98	80-120	
Tetrachloroethene	10.0	10.0	100	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1121.D

Lab ID: LCS 240-272768/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	10.0	9.88	99	80-121	
trans-1,2-Dichloroethene	10.0	9.76	98	80-123	
trans-1,3-Dichloropropene	10.0	8.51	85	65-120	
Trichloroethene	10.0	10.3	103	80-122	
Trichlorofluoromethane	10.0	8.80	88	56-161	
Vinyl chloride	10.0	8.43	84	60-129	
Xylenes, Total	20.0	19.6	98	80-120	
m-Xylene & p-Xylene	10.0	9.72	97	80-120	
o-Xylene	10.0	9.85	99	80-120	
1,2,3-Trichlorobenzene	10.0	9.58	96	53-135	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962957.D

Lab ID: LCS 240-273734/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	19.8	99	79-133	
1,1,2,2-Tetrachloroethane	20.0	18.1	91	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.3	97	65-151	
1,1,2-Trichloroethane	20.0	19.1	96	80-120	
1,1-Dichloroethane	20.0	19.8	99	77-121	
1,1-Dichloroethene	20.0	20.7	104	70-141	
1,2,4-Trichlorobenzene	20.0	16.0	80	53-137	
1,2-Dibromo-3-Chloropropane	20.0	16.4	82	46-140	
Ethylene Dibromide	20.0	17.6	88	80-126	
1,2-Dichlorobenzene	20.0	17.7	88	80-120	
1,2-Dichloroethane	20.0	19.5	98	76-130	
1,2-Dichloropropane	20.0	21.6	108	79-121	
1,3-Dichlorobenzene	20.0	17.8	89	80-120	
1,4-Dichlorobenzene	20.0	18.6	93	80-120	
2-Butanone (MEK)	40.0	42.9	107	54-122	
2-Hexanone	40.0	39.2	98	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	41.4	104	60-131	
Acetone	40.0	31.3	78	46-120	
Benzene	20.0	21.4	107	80-120	
Dichlorobromomethane	20.0	20.2	101	76-125	
Bromoform	20.0	20.6	103	52-157	
Bromomethane	20.0	19.9	100	24-160	
Carbon disulfide	20.0	16.6	83	58-160	
Carbon tetrachloride	20.0	19.7	98	69-149	
Chlorobenzene	20.0	18.2	91	80-120	
Chloroethane	20.0	21.9	110	24-147	
Chloroform	20.0	21.7	109	80-120	
Chloromethane	20.0	19.6	98	50-135	
cis-1,2-Dichloroethene	20.0	20.1	100	80-120	
cis-1,3-Dichloropropene	20.0	22.4	112	75-120	
Cyclohexane	20.0	19.6	98	66-135	
Chlorodibromomethane	20.0	17.3	86	68-131	
Dichlorodifluoromethane	20.0	19.9	100	32-140	
Ethylbenzene	20.0	18.6	93	80-120	
Isopropylbenzene	20.0	18.5	93	80-120	
Methyl acetate	40.0	38.9	97	65-124	
Methyl tert-butyl ether	20.0	19.6	98	75-126	
Methylcyclohexane	20.0	19.4	97	71-122	
Methylene Chloride	20.0	21.2	106	68-136	
Styrene	20.0	19.2	96	80-120	
Tetrachloroethene	20.0	18.9	95	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962957.D

Lab ID: LCS 240-273734/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	18.6	93	80-121	
trans-1,2-Dichloroethene	20.0	22.5	113	80-123	
trans-1,3-Dichloropropene	20.0	16.8	84	65-120	
Trichloroethene	20.0	20.0	100	80-122	
Trichlorofluoromethane	20.0	19.7	98	56-161	
Vinyl chloride	20.0	21.3	107	60-129	
Xylenes, Total	40.0	36.6	92	80-120	
m-Xylene & p-Xylene	20.0	18.2	91	80-120	
o-Xylene	20.0	18.4	92	80-120	
1,2,3-Trichlorobenzene	20.0	14.5	73	53-135	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256398.D

Lab ID: LCS 240-273820/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.7	104	79-133	
1,1,2,2-Tetrachloroethane	20.0	21.0	105	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.3	106	65-151	
1,1,2-Trichloroethane	20.0	21.3	106	80-120	
1,1-Dichloroethane	20.0	20.9	105	77-121	
1,1-Dichloroethene	20.0	21.9	109	70-141	
1,2,4-Trichlorobenzene	20.0	20.7	104	53-137	
1,2-Dibromo-3-Chloropropane	20.0	21.7	108	46-140	
Ethylene Dibromide	20.0	21.1	106	80-126	
1,2-Dichlorobenzene	20.0	21.3	107	80-120	
1,2-Dichloroethane	20.0	21.1	105	76-130	
1,2-Dichloropropane	20.0	21.4	107	79-121	
1,3-Dichlorobenzene	20.0	21.7	108	80-120	
1,4-Dichlorobenzene	20.0	21.1	106	80-120	
2-Butanone (MEK)	40.0	37.2	93	54-122	
2-Hexanone	40.0	40.8	102	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	40.7	102	60-131	
Acetone	40.0	29.8	74	46-120	
Benzene	20.0	21.3	106	80-120	
Dichlorobromomethane	20.0	22.3	112	76-125	
Bromoform	20.0	18.5	93	52-157	
Bromomethane	20.0	21.0	105	24-160	
Carbon disulfide	20.0	20.8	104	58-160	
Carbon tetrachloride	20.0	22.3	111	69-149	
Chlorobenzene	20.0	20.9	105	80-120	
Chloroethane	20.0	21.9	110	24-147	
Chloroform	20.0	20.8	104	80-120	
Chloromethane	20.0	19.8	99	50-135	
cis-1,2-Dichloroethene	20.0	20.6	103	80-120	
cis-1,3-Dichloropropene	20.0	22.8	114	75-120	
Cyclohexane	20.0	18.3	92	66-135	
Chlorodibromomethane	20.0	22.0	110	68-131	
Dichlorodifluoromethane	20.0	18.4	92	32-140	
Ethylbenzene	20.0	21.4	107	80-120	
Isopropylbenzene	20.0	22.3	111	80-120	
Methyl acetate	40.0	40.9	102	65-124	
Methyl tert-butyl ether	20.0	21.2	106	75-126	
Methylcyclohexane	20.0	21.3	106	71-122	
Methylene Chloride	20.0	20.9	104	68-136	
Styrene	20.0	21.6	108	80-120	
Tetrachloroethene	20.0	21.8	109	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256398.D

Lab ID: LCS 240-273820/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.7	103	80-121	
trans-1,2-Dichloroethene	20.0	21.6	108	80-123	
trans-1,3-Dichloropropene	20.0	19.7	98	65-120	
Trichloroethene	20.0	20.4	102	80-122	
Trichlorofluoromethane	20.0	23.2	116	56-161	
Vinyl chloride	20.0	20.0	100	60-129	
Xylenes, Total	40.0	43.1	108	80-120	
m-Xylene & p-Xylene	20.0	21.7	108	80-120	
o-Xylene	20.0	21.4	107	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962993.D

Lab ID: LCS 240-273938/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	19.8	99	79-133	
1,1,2,2-Tetrachloroethane	20.0	18.6	93	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.2	86	65-151	
1,1,2-Trichloroethane	20.0	20.1	101	80-120	
1,1-Dichloroethane	20.0	20.4	102	77-121	
1,1-Dichloroethene	20.0	20.1	100	70-141	
1,2,4-Trichlorobenzene	20.0	16.0	80	53-137	
1,2-Dibromo-3-Chloropropane	20.0	16.1	80	46-140	
Ethylene Dibromide	20.0	18.6	93	80-126	
1,2-Dichlorobenzene	20.0	18.0	90	80-120	
1,2-Dichloroethane	20.0	19.2	96	76-130	
1,2-Dichloropropane	20.0	21.8	109	79-121	
1,3-Dichlorobenzene	20.0	18.2	91	80-120	
1,4-Dichlorobenzene	20.0	18.8	94	80-120	
2-Butanone (MEK)	40.0	40.3	101	54-122	
2-Hexanone	40.0	37.1	93	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	40.6	101	60-131	
Acetone	40.0	27.9	70	46-120	
Benzene	20.0	21.7	109	80-120	
Dichlorobromomethane	20.0	20.9	104	76-125	
Bromoform	20.0	20.7	104	52-157	
Bromomethane	20.0	20.4	102	24-160	
Carbon disulfide	20.0	17.2	86	58-160	
Carbon tetrachloride	20.0	18.7	93	69-149	
Chlorobenzene	20.0	18.6	93	80-120	
Chloroethane	20.0	22.7	113	24-147	
Chloroform	20.0	21.6	108	80-120	
Chloromethane	20.0	20.7	103	50-135	
cis-1,2-Dichloroethene	20.0	20.9	104	80-120	
cis-1,3-Dichloropropene	20.0	22.6	113	75-120	
Cyclohexane	20.0	19.2	96	66-135	
Chlorodibromomethane	20.0	17.9	90	68-131	
Dichlorodifluoromethane	20.0	17.1	86	32-140	
Ethylbenzene	20.0	18.5	92	80-120	
Isopropylbenzene	20.0	19.0	95	80-120	
Methyl acetate	40.0	37.3	93	65-124	
Methyl tert-butyl ether	20.0	19.8	99	75-126	
Methylcyclohexane	20.0	17.6	88	71-122	
Methylene Chloride	20.0	21.1	105	68-136	
Styrene	20.0	19.4	97	80-120	
Tetrachloroethene	20.0	18.6	93	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962993.D

Lab ID: LCS 240-273938/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	18.6	93	80-121	
trans-1,2-Dichloroethene	20.0	22.2	111	80-123	
trans-1,3-Dichloropropene	20.0	17.1	85	65-120	
Trichloroethene	20.0	20.3	102	80-122	
Trichlorofluoromethane	20.0	19.3	96	56-161	
Vinyl chloride	20.0	20.9	104	60-129	
Xylenes, Total	40.0	36.9	92	80-120	
m-Xylene & p-Xylene	20.0	18.4	92	80-120	
o-Xylene	20.0	18.5	92	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1628.D

Lab ID: LCS 240-274011/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,2,3-Trichlorobenzene	20.0	18.6	93	53-135	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963043.D

Lab ID: LCS 240-274127/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.1	91	79-133	
1,1,2,2-Tetrachloroethane	20.0	19.7	99	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.0	90	65-151	
1,1,2-Trichloroethane	20.0	20.2	101	80-120	
1,1-Dichloroethane	20.0	18.3	92	77-121	
1,1-Dichloroethene	20.0	19.1	95	70-141	
1,2,4-Trichlorobenzene	20.0	18.3	92	53-137	
1,2-Dibromo-3-Chloropropane	20.0	16.4	82	46-140	
Ethylene Dibromide	20.0	18.7	94	80-126	
1,2-Dichlorobenzene	20.0	19.3	97	80-120	
1,2-Dichloroethane	20.0	17.3	86	76-130	
1,2-Dichloropropane	20.0	19.3	97	79-121	
1,3-Dichlorobenzene	20.0	19.2	96	80-120	
1,4-Dichlorobenzene	20.0	19.6	98	80-120	
2-Butanone (MEK)	40.0	39.7	99	54-122	
2-Hexanone	40.0	39.1	98	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	38.1	95	60-131	
Acetone	40.0	27.6	69	46-120	
Benzene	20.0	19.7	98	80-120	
Dichlorobromomethane	20.0	18.0	90	76-125	
Bromoform	20.0	16.6	83	52-157	
Bromomethane	20.0	18.2	91	24-160	
Carbon disulfide	20.0	15.5	78	58-160	
Carbon tetrachloride	20.0	17.1	85	69-149	
Chlorobenzene	20.0	18.5	93	80-120	
Chloroethane	20.0	19.6	98	24-147	
Chloroform	20.0	19.5	98	80-120	
Chloromethane	20.0	17.9	90	50-135	
cis-1,2-Dichloroethene	20.0	18.7	93	80-120	
cis-1,3-Dichloropropene	20.0	19.9	100	75-120	
Cyclohexane	20.0	19.0	95	66-135	
Chlorodibromomethane	20.0	16.6	83	68-131	
Dichlorodifluoromethane	20.0	14.9	75	32-140	
Ethylbenzene	20.0	19.3	97	80-120	
Isopropylbenzene	20.0	19.0	95	80-120	
Methyl acetate	40.0	35.2	88	65-124	
Methyl tert-butyl ether	20.0	18.2	91	75-126	
Methylcyclohexane	20.0	17.8	89	71-122	
Methylene Chloride	20.0	19.3	96	68-136	
Styrene	20.0	19.7	99	80-120	
Tetrachloroethene	20.0	19.5	98	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963043.D

Lab ID: LCS 240-274127/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	19.0	95	80-121	
trans-1,2-Dichloroethene	20.0	20.9	104	80-123	
trans-1,3-Dichloropropene	20.0	17.0	85	65-120	
Trichloroethene	20.0	18.9	95	80-122	
Trichlorofluoromethane	20.0	18.0	90	56-161	
Vinyl chloride	20.0	18.1	91	60-129	
Xylenes, Total	40.0	38.0	95	80-120	
m-Xylene & p-Xylene	20.0	18.8	94	80-120	
o-Xylene	20.0	19.2	96	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962971.D

Lab ID: 240-77416-3 MS Client ID: MRC-MW114A-032917 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	200	2.3 U	191	95	55-150	
1,1,2,2-Tetrachloroethane	200	3.2 U	182	91	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	200	4.1 U	164	82	41-149	
1,1,2-Trichloroethane	200	3.4 U	183	91	65-130	
1,1-Dichloroethane	200	2.5 U	194	97	57-135	
1,1-Dichloroethene	200	2.7 U	201	101	50-156	
1,2,4-Trichlorobenzene	200	320	468	73	35-140	
1,2-Dibromo-3-Chloropropane	200	4.7 U	149	74	37-139	
Ethylene Dibromide	200	2.3 U	178	89	64-137	
1,2-Dichlorobenzene	200	18	194	88	62-123	
1,2-Dichloroethane	200	400	564	83	62-137	
1,2-Dichloropropane	200	4.2 J	209	103	66-130	
1,3-Dichlorobenzene	200	7.2 J	187	90	59-122	
1,4-Dichlorobenzene	200	51	226	87	60-122	
2-Butanone (MEK)	400	10 U	406	102	38-123	
2-Hexanone	400	12 U	386	96	41-135	
4-Methyl-2-pentanone (MIBK)	400	7.1 U	400	100	43-143	
Acetone	400	18 U	322	81	28-120	
Benzene	200	2.8 U	212	106	67-126	
Dichlorobromomethane	200	3.0 U	192	96	64-127	
Bromoform	200	4.3 U	182	91	40-149	
Bromomethane	200	4.2 U	211	106	10-169	
Carbon disulfide	200	3.4 U	159	79	43-172	
Carbon tetrachloride	200	3.5 U	177	88	51-154	
Chlorobenzene	200	120	297	88	58-128	
Chloroethane	200	4.1 U	223	111	10-162	
Chloroform	200	3.1 U	208	104	67-133	
Chloromethane	200	4.3 U	195	98	30-143	
cis-1,2-Dichloroethene	200	3.0 U	193	97	64-134	
cis-1,3-Dichloropropene	200	2.6 U	209	105	58-120	
Cyclohexane	200	4.4 U	176	88	36-144	
Chlorodibromomethane	200	2.5 U	169	85	56-132	
Dichlorodifluoromethane	200	5.0 U	158	79	16-140	
Ethylbenzene	200	2.6 U	180	90	66-123	
Isopropylbenzene	200	2.1 U	180	90	57-132	
Methyl acetate	400	14 U	378	94	46-135	
Methyl tert-butyl ether	200	2.7 U	187	93	50-137	
Methylcyclohexane	200	4.5 U	152	76	31-139	
Methylene Chloride	200	26	221	97	48-138	
Styrene	200	2.3 U	183	92	62-131	
Tetrachloroethene	200	3.0 U	191	96	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962971.D

Lab ID: 240-77416-3 MS Client ID: MRC-MW114A-032917 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	200	2.3 U	182	91	63-130	
trans-1,2-Dichloroethene	200	2.9 U	218	109	70-137	
trans-1,3-Dichloropropene	200	3.1 U	162	81	48-120	
Trichloroethene	200	6.1 J	197	95	58-139	
Trichlorofluoromethane	200	180	361	91	26-175	
Vinyl chloride	200	4.5 U	205	102	38-147	
Xylenes, Total	400	2.4 U	357	89	60-126	
m-Xylene & p-Xylene	200	2.4 U	177	88	58-127	
o-Xylene	200	2.8 U	180	90	61-126	
1,2,3-Trichlorobenzene	200	76	223	74	40-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1635.D

Lab ID: 240-77416-3 MS Client ID: MRC-MW114A-032917 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,2,3-Trichlorobenzene	200	92	306	107	40-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256422.D

Lab ID: 240-77601-2 MS Client ID: MRC-MW21B-040317 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	250	2.9 U	241	96	55-150	
1,1,2,2-Tetrachloroethane	250	4.0 U	263	105	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	250	5.1 U	246	98	41-149	
1,1,2-Trichloroethane	250	4.3 U	266	106	65-130	
1,1-Dichloroethane	250	17	269	101	57-135	
1,1-Dichloroethene	250	160	395	95	50-156	
1,2,4-Trichlorobenzene	250	3.4 U	230	92	35-140	
1,2-Dibromo-3-Chloropropane	250	5.9 U	263	105	37-139	
Ethylene Dibromide	250	2.9 U	261	105	64-137	
1,2-Dichlorobenzene	250	3.3 U	247	99	62-123	
1,2-Dichloroethane	250	3.8 U	259	104	62-137	
1,2-Dichloropropane	250	3.8 U	256	102	66-130	
1,3-Dichlorobenzene	250	4.0 U	247	99	59-122	
1,4-Dichlorobenzene	250	2.9 U	238	95	60-122	
2-Butanone (MEK)	500	13 U	467	93	38-123	
2-Hexanone	500	15 U	541	108	41-135	
4-Methyl-2-pentanone (MIBK)	500	8.9 U	524	105	43-143	
Acetone	500	22 U	376	75	28-120	
Benzene	250	21	272	100	67-126	
Dichlorobromomethane	250	3.8 U	258	103	64-127	
Bromoform	250	5.4 U	224	90	40-149	
Bromomethane	250	5.3 U	244	98	10-169	
Carbon disulfide	250	4.3 U	240	96	43-172	
Carbon tetrachloride	250	4.4 U	238	95	51-154	
Chlorobenzene	250	4.0 U	246	99	58-128	
Chloroethane	250	5.1 U	263	105	10-162	
Chloroform	250	3.9 U	249	99	67-133	
Chloromethane	250	5.4 U	249	100	30-143	
cis-1,2-Dichloroethene	250	6.1 J	255	99	64-134	
cis-1,3-Dichloropropene	250	3.3 U	255	102	58-120	
Cyclohexane	250	5.5 U	207	83	36-144	
Chlorodibromomethane	250	3.1 U	265	106	56-132	
Dichlorodifluoromethane	250	6.3 U	207	83	16-140	
Ethylbenzene	250	3.3 U	259	104	66-123	
Isopropylbenzene	250	12 J	271	104	57-132	
Methyl acetate	500	18 U	542	108	46-135	
Methyl tert-butyl ether	250	3.4 U	253	101	50-137	
Methylcyclohexane	250	5.6 U	231	92	31-139	
Methylene Chloride	250	6.6 U	264	105	48-138	
Styrene	250	2.9 U	263	105	62-131	
Tetrachloroethene	250	8.5 J	252	97	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256422.D

Lab ID: 240-77601-2 MS Client ID: MRC-MW21B-040317 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	250	2.9 U	254	102	63-130	
trans-1,2-Dichloroethene	250	3.6 U	258	103	70-137	
trans-1,3-Dichloropropene	250	3.9 U	230	92	48-120	
Trichloroethene	250	570	766	78	58-139	E
Trichlorofluoromethane	250	6.3 U	254	102	26-175	
Vinyl chloride	250	5.6 U	235	94	38-147	
Xylenes, Total	500	3.0 U	512	102	60-126	
m-Xylene & p-Xylene	250	3.0 U	258	103	58-127	
o-Xylene	250	3.5 U	254	102	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963064.D

Lab ID: 240-77761-6 MS Client ID: MRC-MW17A-040517 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	80.0	0.92 U	70.6	88	55-150	
1,1,2,2-Tetrachloroethane	80.0	1.3 U	81.0	101	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	80.0	1.6 U	64.5	81	41-149	
1,1,2-Trichloroethane	80.0	1.4 U	82.4	103	65-130	
1,1-Dichloroethane	80.0	1.0 U	73.8	92	57-135	
1,1-Dichloroethene	80.0	1.1 U	75.4	94	50-156	
1,2,4-Trichlorobenzene	80.0	1.1 U	68.1	85	35-140	
1,2-Dibromo-3-Chloropropane	80.0	1.9 U	61.5	77	37-139	
Ethylene Dibromide	80.0	0.92 U	73.8	92	64-137	
1,2-Dichlorobenzene	80.0	1.0 U	72.0	90	62-123	
1,2-Dichloroethane	80.0	1.2 U	71.3	89	62-137	
1,2-Dichloropropane	80.0	1.2 U	76.4	96	66-130	
1,3-Dichlorobenzene	80.0	1.3 U	73.5	92	59-122	
1,4-Dichlorobenzene	80.0	0.92 U	73.2	91	60-122	
2-Butanone (MEK)	160	4.1 U	157	98	38-123	
2-Hexanone	160	4.9 U	158	99	41-135	
4-Methyl-2-pentanone (MIBK)	160	2.8 U	149	93	43-143	
Acetone	160	7.0 U	136	85	28-120	
Benzene	80.0	110	180	93	67-126	
Dichlorobromomethane	80.0	1.2 U	70.9	89	64-127	
Bromoform	80.0	1.7 U	54.6	68	40-149	
Bromomethane	80.0	1.7 U	75.4	94	10-169	
Carbon disulfide	80.0	1.4 U	75.9	95	43-172	
Carbon tetrachloride	80.0	1.4 U	61.4	77	51-154	
Chlorobenzene	80.0	1.3 U	70.5	88	58-128	
Chloroethane	80.0	1.6 U	83.0	104	10-162	
Chloroform	80.0	1.2 U	80.2	100	67-133	
Chloromethane	80.0	1.7 U	71.5	89	30-143	
cis-1,2-Dichloroethene	80.0	1.2 U	75.8	95	64-134	
cis-1,3-Dichloropropene	80.0	1.0 U	69.3	87	58-120	
Cyclohexane	80.0	32	94.4	79	36-144	
Chlorodibromomethane	80.0	1.0 U	58.7	73	56-132	
Dichlorodifluoromethane	80.0	2.0 U	63.0	79	16-140	
Ethylbenzene	80.0	44	117	91	66-123	
Isopropylbenzene	80.0	3.2 J	75.2	90	57-132	
Methyl acetate	160	5.7 U	141	88	46-135	
Methyl tert-butyl ether	80.0	1.1 U	72.1	90	50-137	
Methylene Chloride	80.0	2.1 U	79.0	99	48-138	
Styrene	80.0	0.92 U	75.3	94	62-131	
Tetrachloroethene	80.0	1.2 U	70.4	88	54-138	
Toluene	80.0	7.9	79.8	90	63-130	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963064.D

Lab ID: 240-77761-6 MS Client ID: MRC-MW17A-040517 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
trans-1,2-Dichloroethene	80.0	1.2 U	79.7	100	70-137	
trans-1,3-Dichloropropene	80.0	1.2 U	56.6	71	48-120	
Trichloroethene	80.0	7.5	78.5	89	58-139	
Trichlorofluoromethane	80.0	2.0 U	72.1	90	26-175	
Vinyl chloride	80.0	1.8 U	74.4	93	38-147	
Xylenes, Total	160	13	156	89	60-126	
m-Xylene & p-Xylene	80.0	12	84.5	90	58-127	
o-Xylene	80.0	1.4 J	71.9	88	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1145.D

Lab ID: 200-37906-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	33.3	0.77 U	31.1	93	55-150	
1,1,2,2-Tetrachloroethane	33.3	1.1 U	29.6	89	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	33.3	1.4 U	21.7	65	41-149	
1,1,2-Trichloroethane	33.3	1.1 U	32.9	99	65-130	
1,1-Dichloroethane	33.3	0.83 U	30.9	93	57-135	
1,1-Dichloroethene	33.3	0.90 U	31.5	94	50-156	
1,2,4-Trichlorobenzene	33.3	0.90 U	28.3	85	35-140	
1,2-Dibromo-3-Chloropropane	33.3	1.6 U	26.6	80	37-139	
Ethylene Dibromide	33.3	0.77 U	30.3	91	64-137	
1,2-Dichlorobenzene	33.3	0.87 U	30.8	92	62-123	
1,2-Dichloroethane	33.3	1.0 U	31.5	95	62-137	
1,2-Dichloropropane	33.3	1.0 U	31.2	94	66-130	
1,3-Dichlorobenzene	33.3	1.1 U	30.6	92	59-122	
1,4-Dichlorobenzene	33.3	0.77 U	30.4	91	60-122	
2-Butanone (MEK)	66.6	3.4 U	47.0	71	38-123	
2-Hexanone	66.6	4.1 U	48.0	72	41-135	
4-Methyl-2-pentanone (MIBK)	66.6	2.4 U	55.4	83	43-143	
Acetone	66.6	5.9 U	38.9	58	28-120	
Benzene	33.3	0.93 U	30.8	93	67-126	
Dichlorobromomethane	33.3	1.0 U	29.3	88	64-127	
Bromoform	33.3	1.4 U	19.3	58	40-149	
Bromomethane	33.3	1.4 U	24.9	75	10-169	
Carbon disulfide	33.3	1.1 U	29.8	89	43-172	
Carbon tetrachloride	33.3	1.2 U	29.3	88	51-154	
Chlorobenzene	33.3	1.1 U	30.5	92	58-128	
Chloroethane	33.3	1.4 U	26.1	78	10-162	
Chloroform	33.3	1.0 U	31.9	96	67-133	
Chloromethane	33.3	1.4 U	27.0	81	30-143	
cis-1,2-Dichloroethene	33.3	66	101	104	64-134	
cis-1,3-Dichloropropene	33.3	0.87 U	28.4	85	58-120	
Chlorodibromomethane	33.3	0.83 U	26.0	78	56-132	
Dichlorodifluoromethane	33.3	1.7 U	24.0	72	16-140	
Ethylbenzene	33.3	0.87 U	30.2	91	66-123	
Isopropylbenzene	33.3	0.70 U	29.8	89	57-132	
Methyl tert-butyl ether	33.3	0.90 U	32.6	98	50-137	
Methylene Chloride	33.3	1.8 U	31.8	96	48-138	
Styrene	33.3	0.77 U	30.2	91	62-131	
Tetrachloroethene	33.3	15	44.1	89	54-138	
Toluene	33.3	0.77 U	30.6	92	63-130	
trans-1,2-Dichloroethene	33.3	3.4	31.1	83	70-137	
trans-1,3-Dichloropropene	33.3	1.0 U	25.3	76	48-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1145.D

Lab ID: 200-37906-B-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Trichloroethene	33.3	7.9	39.0	94	58-139	
Trichlorofluoromethane	33.3	1.7 U	28.8	86	26-175	
Vinyl chloride	33.3	1.5 U	28.0	84	38-147	
Xylenes, Total	66.6	0.80 U	60.6	91	60-126	
m-Xylene & p-Xylene	33.3	0.80 U	29.7	89	58-127	
o-Xylene	33.3	0.93 U	30.9	93	61-126	
1,2,3-Trichlorobenzene	33.3	1.2 U	28.7	86	40-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963005.D

Lab ID: 240-77684-A-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethane	200	2.5 U	199	100	57-135	
1,2-Dichloroethane	200	3.0 U	186	93	62-137	
cis-1,2-Dichloroethene	200	600	774	86	64-134	
trans-1,2-Dichloroethene	200	3.3 J	227	112	70-137	
Trichloroethene	200	160	353	95	58-139	
Vinyl chloride	200	190	380	95	38-147	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962972.D

Lab ID: 240-77416-3 MSD Client ID: MRC-MW114A-032917 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	200	196	98	3	35	55-150	
1,1,2,2-Tetrachloroethane	200	180	90	1	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	200	176	88	7	35	41-149	
1,1,2-Trichloroethane	200	196	98	7	35	65-130	
1,1-Dichloroethane	200	192	96	1	35	57-135	
1,1-Dichloroethene	200	210	105	4	35	50-156	
1,2,4-Trichlorobenzene	200	445	61	5	35	35-140	
1,2-Dibromo-3-Chloropropane	200	156	78	5	35	37-139	
Ethylene Dibromide	200	180	90	1	35	64-137	
1,2-Dichlorobenzene	200	188	85	3	35	62-123	
1,2-Dichloroethane	200	559	81	1	35	62-137	
1,2-Dichloropropane	200	218	107	4	35	66-130	
1,3-Dichlorobenzene	200	183	88	2	35	59-122	
1,4-Dichlorobenzene	200	221	85	2	35	60-122	
2-Butanone (MEK)	400	417	104	3	35	38-123	
2-Hexanone	400	389	97	1	35	41-135	
4-Methyl-2-pentanone (MIBK)	400	407	102	2	35	43-143	
Acetone	400	323	81	0	35	28-120	
Benzene	200	212	106	0	31	67-126	
Dichlorobromomethane	200	196	98	2	35	64-127	
Bromoform	200	190	95	4	35	40-149	
Bromomethane	200	203	102	4	35	10-169	
Carbon disulfide	200	163	82	3	35	43-172	
Carbon tetrachloride	200	185	92	4	35	51-154	
Chlorobenzene	200	298	88	0	35	58-128	
Chloroethane	200	221	111	1	35	10-162	
Chloroform	200	209	104	1	35	67-133	
Chloromethane	200	196	98	1	35	30-143	
cis-1,2-Dichloroethene	200	197	99	2	35	64-134	
cis-1,3-Dichloropropene	200	211	106	1	35	58-120	
Cyclohexane	200	191	96	8	35	36-144	
Chlorodibromomethane	200	174	87	3	35	56-132	
Dichlorodifluoromethane	200	163	82	3	35	16-140	
Ethylbenzene	200	188	94	4	34	66-123	
Isopropylbenzene	200	192	96	7	35	57-132	
Methyl acetate	400	384	96	2	34	46-135	
Methyl tert-butyl ether	200	196	98	5	35	50-137	
Methylcyclohexane	200	183	91	18	35	31-139	
Methylene Chloride	200	219	96	1	35	48-138	
Styrene	200	195	97	6	35	62-131	
Tetrachloroethene	200	191	95	0	35	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX962972.D

Lab ID: 240-77416-3 MSD Client ID: MRC-MW114A-032917 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	200	186	93	2	33	63-130	
trans-1,2-Dichloroethene	200	212	106	3	25	70-137	
trans-1,3-Dichloropropene	200	163	81	0	35	48-120	
Trichloroethene	200	195	95	1	35	58-139	
Trichlorofluoromethane	200	352	86	3	35	26-175	
Vinyl chloride	200	203	101	1	35	38-147	
Xylenes, Total	400	372	93	4	35	60-126	
m-Xylene & p-Xylene	200	185	92	4	35	58-127	
o-Xylene	200	187	93	4	35	61-126	
1,2,3-Trichlorobenzene	200	212	68	5	35	40-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1636.D

Lab ID: 240-77416-3 MSD Client ID: MRC-MW114A-032917 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,2,3-Trichlorobenzene	200	291	99	5	35	40-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256423.D

Lab ID: 240-77601-2 MSD Client ID: MRC-MW21B-040317 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	250	246	98	2	35	55-150	
1,1,2,2-Tetrachloroethane	250	253	101	4	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	250	221	88	11	35	41-149	
1,1,2-Trichloroethane	250	257	103	3	35	65-130	
1,1-Dichloroethane	250	262	98	3	35	57-135	
1,1-Dichloroethene	250	375	87	5	35	50-156	
1,2,4-Trichlorobenzene	250	240	96	4	35	35-140	
1,2-Dibromo-3-Chloropropane	250	265	106	1	35	37-139	
Ethylene Dibromide	250	248	99	5	35	64-137	
1,2-Dichlorobenzene	250	246	99	0	35	62-123	
1,2-Dichloroethane	250	251	100	3	35	62-137	
1,2-Dichloropropane	250	252	101	1	35	66-130	
1,3-Dichlorobenzene	250	250	100	1	35	59-122	
1,4-Dichlorobenzene	250	247	99	3	35	60-122	
2-Butanone (MEK)	500	444	89	5	35	38-123	
2-Hexanone	500	505	101	7	35	41-135	
4-Methyl-2-pentanone (MIBK)	500	492	98	6	35	43-143	
Acetone	500	390	78	4	35	28-120	
Benzene	250	265	98	3	31	67-126	
Dichlorobromomethane	250	251	100	3	35	64-127	
Bromoform	250	201	80	11	35	40-149	
Bromomethane	250	236	94	4	35	10-169	
Carbon disulfide	250	236	94	2	35	43-172	
Carbon tetrachloride	250	240	96	1	35	51-154	
Chlorobenzene	250	246	99	0	35	58-128	
Chloroethane	250	250	100	5	35	10-162	
Chloroform	250	248	99	0	35	67-133	
Chloromethane	250	238	95	4	35	30-143	
cis-1,2-Dichloroethene	250	244	95	4	35	64-134	
cis-1,3-Dichloropropene	250	253	101	1	35	58-120	
Cyclohexane	250	215	86	4	35	36-144	
Chlorodibromomethane	250	254	102	4	35	56-132	
Dichlorodifluoromethane	250	196	78	5	35	16-140	
Ethylbenzene	250	252	101	3	34	66-123	
Isopropylbenzene	250	272	104	0	35	57-132	
Methyl acetate	500	511	102	6	34	46-135	
Methyl tert-butyl ether	250	246	98	3	35	50-137	
Methylcyclohexane	250	233	93	1	35	31-139	
Methylene Chloride	250	247	99	7	35	48-138	
Styrene	250	252	101	4	35	62-131	
Tetrachloroethene	250	249	96	1	35	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256423.D

Lab ID: 240-77601-2 MSD Client ID: MRC-MW21B-040317 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	250	247	99	3	33	63-130	
trans-1,2-Dichloroethene	250	252	101	2	25	70-137	
trans-1,3-Dichloropropene	250	225	90	3	35	48-120	
Trichloroethene	250	755	74	1	35	58-139	E
Trichlorofluoromethane	250	247	99	3	35	26-175	
Vinyl chloride	250	231	92	2	35	38-147	
Xylenes, Total	500	504	101	2	35	60-126	
m-Xylene & p-Xylene	250	255	102	1	35	58-127	
o-Xylene	250	249	100	2	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963065.D

Lab ID: 240-77761-6 MSD Client ID: MRC-MW17A-040517 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	80.0	71.2	89	1	35	55-150	
1,1,2,2-Tetrachloroethane	80.0	73.4	92	10	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	80.0	62.1	78	4	35	41-149	
1,1,2-Trichloroethane	80.0	83.3	104	1	35	65-130	
1,1-Dichloroethane	80.0	71.9	90	3	35	57-135	
1,1-Dichloroethene	80.0	73.0	91	3	35	50-156	
1,2,4-Trichlorobenzene	80.0	66.7	83	2	35	35-140	
1,2-Dibromo-3-Chloropropane	80.0	64.0	80	4	35	37-139	
Ethylene Dibromide	80.0	72.3	90	2	35	64-137	
1,2-Dichlorobenzene	80.0	70.1	88	3	35	62-123	
1,2-Dichloroethane	80.0	73.4	92	3	35	62-137	
1,2-Dichloropropane	80.0	76.9	96	1	35	66-130	
1,3-Dichlorobenzene	80.0	71.3	89	3	35	59-122	
1,4-Dichlorobenzene	80.0	72.6	91	1	35	60-122	
2-Butanone (MEK)	160	155	97	1	35	38-123	
2-Hexanone	160	159	99	1	35	41-135	
4-Methyl-2-pentanone (MIBK)	160	151	95	1	35	43-143	
Acetone	160	126	78	8	35	28-120	
Benzene	80.0	173	84	4	31	67-126	
Dichlorobromomethane	80.0	69.1	86	3	35	64-127	
Bromoform	80.0	55.4	69	1	35	40-149	
Bromomethane	80.0	69.4	87	8	35	10-169	
Carbon disulfide	80.0	56.0	70	30	35	43-172	
Carbon tetrachloride	80.0	61.3	77	0	35	51-154	
Chlorobenzene	80.0	71.2	89	1	35	58-128	
Chloroethane	80.0	79.4	99	4	35	10-162	
Chloroform	80.0	78.0	97	3	35	67-133	
Chloromethane	80.0	71.7	90	0	35	30-143	
cis-1,2-Dichloroethene	80.0	74.4	93	2	35	64-134	
cis-1,3-Dichloropropene	80.0	69.4	87	0	35	58-120	
Cyclohexane	80.0	95.8	80	1	35	36-144	
Chlorodibromomethane	80.0	56.3	70	4	35	56-132	
Dichlorodifluoromethane	80.0	61.0	76	3	35	16-140	
Ethylbenzene	80.0	114	87	3	34	66-123	
Isopropylbenzene	80.0	75.2	90	0	35	57-132	
Methyl acetate	160	134	84	5	34	46-135	
Methyl tert-butyl ether	80.0	70.2	88	3	35	50-137	
Methylene Chloride	80.0	79.7	100	1	35	48-138	
Styrene	80.0	74.6	93	1	35	62-131	
Tetrachloroethene	80.0	73.0	91	4	35	54-138	
Toluene	80.0	80.3	90	1	33	63-130	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963065.D

Lab ID: 240-77761-6 MSD Client ID: MRC-MW17A-040517 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
trans-1,2-Dichloroethene	80.0	78.9	99	1	25	70-137	
trans-1,3-Dichloropropene	80.0	55.3	69	2	35	48-120	
Trichloroethene	80.0	78.9	89	1	35	58-139	
Trichlorofluoromethane	80.0	67.7	85	6	35	26-175	
Vinyl chloride	80.0	72.5	91	3	35	38-147	
Xylenes, Total	160	155	89	1	35	60-126	
m-Xylene & p-Xylene	80.0	82.4	88	3	35	58-127	
o-Xylene	80.0	72.9	89	1	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1146.D

Lab ID: 200-37906-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	33.3	33.1	99	6	35	55-150	
1,1,2,2-Tetrachloroethane	33.3	31.8	95	7	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	33.3	26.9	81	21	35	41-149	
1,1,2-Trichloroethane	33.3	34.5	104	5	35	65-130	
1,1-Dichloroethane	33.3	33.2	100	7	35	57-135	
1,1-Dichloroethene	33.3	31.9	96	2	35	50-156	
1,2,4-Trichlorobenzene	33.3	29.4	88	4	35	35-140	
1,2-Dibromo-3-Chloropropane	33.3	28.5	86	7	35	37-139	
Ethylene Dibromide	33.3	32.2	97	6	35	64-137	
1,2-Dichlorobenzene	33.3	33.5	101	9	35	62-123	
1,2-Dichloroethane	33.3	34.0	102	7	35	62-137	
1,2-Dichloropropane	33.3	33.9	102	8	35	66-130	
1,3-Dichlorobenzene	33.3	32.0	96	4	35	59-122	
1,4-Dichlorobenzene	33.3	32.6	98	7	35	60-122	
2-Butanone (MEK)	66.6	51.4	77	9	35	38-123	
2-Hexanone	66.6	50.7	76	5	35	41-135	
4-Methyl-2-pentanone (MIBK)	66.6	58.4	88	5	35	43-143	
Acetone	66.6	43.6	65	11	35	28-120	
Benzene	33.3	33.6	101	9	31	67-126	
Dichlorobromomethane	33.3	32.7	98	11	35	64-127	
Bromoform	33.3	20.4	61	5	35	40-149	
Bromomethane	33.3	27.3	82	9	35	10-169	
Carbon disulfide	33.3	30.8	92	3	35	43-172	
Carbon tetrachloride	33.3	31.9	96	8	35	51-154	
Chlorobenzene	33.3	32.9	99	7	35	58-128	
Chloroethane	33.3	28.3	85	8	35	10-162	
Chloroform	33.3	34.0	102	6	35	67-133	
Chloromethane	33.3	26.8	81	1	35	30-143	
cis-1,2-Dichloroethene	33.3	105	116	4	35	64-134	
cis-1,3-Dichloropropene	33.3	30.9	93	8	35	58-120	
Chlorodibromomethane	33.3	28.5	86	9	35	56-132	
Dichlorodifluoromethane	33.3	25.3	76	5	35	16-140	
Ethylbenzene	33.3	32.9	99	9	34	66-123	
Isopropylbenzene	33.3	32.0	96	7	35	57-132	
Methyl tert-butyl ether	33.3	35.1	105	7	35	50-137	
Methylene Chloride	33.3	34.1	102	7	35	48-138	
Styrene	33.3	32.0	96	6	35	62-131	
Tetrachloroethene	33.3	46.7	97	6	35	54-138	
Toluene	33.3	32.7	98	7	33	63-130	
trans-1,2-Dichloroethene	33.3	33.5	90	7	25	70-137	
trans-1,3-Dichloropropene	33.3	28.0	84	10	35	48-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ1146.D

Lab ID: 200-37906-B-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Trichloroethene	33.3	41.6	101	6	35	58-139	
Trichlorofluoromethane	33.3	29.6	89	3	35	26-175	
Vinyl chloride	33.3	28.9	87	3	35	38-147	
Xylenes, Total	66.6	64.5	97	6	35	60-126	
m-Xylene & p-Xylene	33.3	32.0	96	7	35	58-127	
o-Xylene	33.3	32.5	98	5	35	61-126	
1,2,3-Trichlorobenzene	33.3	30.2	91	5	35	40-139	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963006.D

Lab ID: 240-77684-A-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethane	200	186	93	7	35	57-135	
1,2-Dichloroethane	200	178	89	4	35	62-137	
cis-1,2-Dichloroethene	200	739	69	5	35	64-134	
trans-1,2-Dichloroethene	200	213	105	6	25	70-137	
Trichloroethene	200	335	87	5	35	58-139	
Vinyl chloride	200	371	91	2	35	38-147	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: STD8260 240-272388/4 Date Analyzed: 03/29/2017 10:38

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ1044.D Heated Purge: (Y/N) N

Calibration ID: 39174

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		838554	5.04	622679	7.70	302532	9.94
UPPER LIMIT		1677108	5.54	1245358	8.20	605064	10.44
LOWER LIMIT		419277	4.54	311340	7.20	151266	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272388/15		836158	5.04	620506	7.70	304045	9.94
ICV 240-272388/14		897373	5.04	658178	7.70	317428	9.94
CCVIS 240-272768/2		890785	5.04	669824	7.70	315717	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: CCVIS 240-272768/2 Date Analyzed: 03/31/2017 10:13

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ1120.D Heated Purge: (Y/N) N

Calibration ID: 39177

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		890785	5.04	669824	7.70	315717	9.94
UPPER LIMIT		1781570	5.54	1339648	8.20	631434	10.44
LOWER LIMIT		445393	4.54	334912	7.20	157859	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-272768/4		887519	5.04	667787	7.70	324823	9.94
CCV 240-272768/3		882286	5.04	665506	7.70	319868	9.94
MB 240-272768/6		867163	5.04	651083	7.70	311097	9.94
240-77416-5	TB-032917	883506	5.04	652535	7.70	310383	9.94
200-37906-B-3 MS		886887	5.04	666352	7.70	324576	9.94
200-37906-B-3 MSD		840604	5.04	636778	7.70	309764	9.94

FB = Fluorobenzene
FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4
Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: ICIS 240-272636/9 Date Analyzed: 03/30/2017 15:28

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1256168a.D Heated Purge: (Y/N) N

Calibration ID: 39201

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1131500	5.17	877028	7.82	486514	10.03
UPPER LIMIT		2263000	5.67	1754056	8.32	973028	10.53
LOWER LIMIT		565750	4.67	438514	7.32	243257	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272636/19		1156798	5.17	900454	7.82	499033	10.03
CCVIS 240-273820/3		1170828	5.16	882965	7.82	484705	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: CCVIS 240-273820/3 Date Analyzed: 04/07/2017 15:51

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1256397.D Heated Purge: (Y/N) N

Calibration ID: 39201

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1170828	5.16	882965	7.82	484705	10.03
UPPER LIMIT		2341656	5.66	1765930	8.32	969410	10.53
LOWER LIMIT		585414	4.66	441483	7.32	242353	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-273820/4		1166316	5.16	895932	7.82	492919	10.03
CCV 240-273820/5		1146444	5.16	873463	7.82	470637	10.03
MB 240-273820/7		1103748	5.17	839157	7.82	450230	10.03
240-77601-2	MRC-MW21B-040317	1117074	5.16	867404	7.82	454047	10.03
240-77601-3	MRC-MW22A-040317	1116466	5.17	854691	7.82	443213	10.03
240-77601-4	MRC-MW19A-040317	1076995	5.17	832304	7.82	436839	10.03
240-77601-5	TB-040317	1093634	5.16	837312	7.82	448233	10.03
240-77566-1	MRC-MW14A-033017	1098814	5.17	836432	7.82	431014	10.03
240-77566-2	MRC-MW14C-033017	1108471	5.17	841913	7.82	437858	10.03
240-77566-3	MRC-MW106B/C-033017	1080931	5.17	827096	7.82	441528	10.03
240-77566-4	MRC-MW107B/C-033017	1100477	5.17	831387	7.82	431280	10.03
240-77566-5	TB-033117	1092007	5.16	820858	7.82	427804	10.03
240-77566-6	MRC-MW38A-033117	1074330	5.16	807358	7.82	433738	10.03
240-77566-7	MRC-MW38B-033117	1086762	5.16	826607	7.82	431984	10.03
240-77566-8	MRC-DUP05-033017	1085610	5.16	816533	7.82	424968	10.03
240-77601-1	MRC-MW21A-040317	1062574	5.17	817211	7.82	430547	10.03
240-77601-2 MS	MRC-MW21B-040317 MS	1100811	5.16	815581	7.82	465581	10.03
240-77601-2 MSD	MRC-MW21B-040317 MSD	1136065	5.17	846490	7.82	467770	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: ICIS 240-272263/9 Date Analyzed: 03/29/2017 15:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1391.D Heated Purge: (Y/N) N

Calibration ID: 39180

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		776481	5.24	664123	7.92	397614	10.16
UPPER LIMIT		1552962	5.74	1328246	8.42	795228	10.66
LOWER LIMIT		388241	4.74	332062	7.42	198807	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272263/20		753863	5.24	641867	7.92	381510	10.16
CCVIS 240-274011/3		939853	5.24	695046	7.93	406285	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: CCVIS 240-274011/3 Date Analyzed: 04/10/2017 12:23

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1627.D Heated Purge: (Y/N) N

Calibration ID: 39171

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		939853	5.24	695046	7.93	406285	10.16
UPPER LIMIT		1879706	5.74	1390092	8.43	812570	10.66
LOWER LIMIT		469927	4.74	347523	7.43	203143	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-274011/4		907688	5.24	686874	7.93	394416	10.16
CCV 240-274011/6		883746	5.24	670560	7.92	360522	10.16
MB 240-274011/8		815178	5.24	636543	7.93	344759	10.16
240-77416-3	MRC-MW114A-032917	790385	5.24	615760	7.92	333908	10.16
240-77416-4	MRC-MW113A-032917	802766	5.24	618083	7.93	333917	10.16
240-77416-3 MS	MRC-MW114A-032917 MS	830077	5.24	651063	7.93	363828	10.16
240-77416-3 MSD	MRC-MW114A-032917 MSD	873548	5.24	673865	7.92	384420	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: ICIS 240-253710/11 Date Analyzed: 10/31/2016 14:44

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX959473.D Heated Purge: (Y/N) N

Calibration ID: 36877

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1089945	5.72	845544	8.42	470846	10.66
UPPER LIMIT		2179890	6.22	1691088	8.92	941692	11.16
LOWER LIMIT		544973	5.22	422772	7.92	235423	10.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-253710/22		1016048	5.72	819306	8.42	452555	10.66
ICV 240-253710/23		997454	5.73	808908	8.42	436301	10.65
CCVIS 240-273734/3		1016373	5.73	893332	8.41	518103	10.65
CCVIS 240-273938/3		1096400	5.72	947822	8.41	541581	10.66
CCVIS 240-274127/3		1168586	5.72	896681	8.41	548505	10.66

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: CCVIS 240-273734/3 Date Analyzed: 04/07/2017 08:52

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX962956.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1016373	5.73	893332	8.41	518103	10.65
UPPER LIMIT		2032746	6.23	1786664	8.91	1036206	11.15
LOWER LIMIT		508187	5.23	446666	7.91	259052	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-273734/4		1046466	5.72	932905	8.41	545576	10.65
CCV 240-273734/5		1031666	5.72	903221	8.41	474848	10.65
MB 240-273734/7		942794	5.73	822316	8.41	451752	10.65
240-77416-1	MRC-MW37A-032917	973549	5.72	848607	8.41	448476	10.65
240-77416-2	MRC-MW37B-032917	941460	5.73	831509	8.41	450267	10.65
240-77416-3	MRC-MW114A-032917	954282	5.73	830067	8.41	456255	10.65
240-77416-4	MRC-MW113A-032917	938831	5.72	837136	8.41	444863	10.65
240-77416-6	MRC-MW102B-032917	965072	5.73	843076	8.41	451695	10.65
240-77416-3 MS	MRC-MW114A-032917 MS	1025864	5.73	899440	8.41	531920	10.65
240-77416-3 MSD	MRC-MW114A-032917 MSD	1041877	5.72	896283	8.41	552660	10.65

FB = Fluorobenzene
FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
CBNZd5 = Chlorobenzene-d5
Area Limit = 50%-200% of internal standard area
DCBd4 = 1,4-Dichlorobenzene-d4
RT Limit = ± 0.5 minutes of internal standard RT
DCBd4 = 1,4-Dichlorobenzene-d4

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: CCVIS 240-273938/3 Date Analyzed: 04/10/2017 08:36

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX962992.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1096400	5.72	947822	8.41	541581	10.66
UPPER LIMIT		2192800	6.22	1895644	8.91	1083162	11.16
LOWER LIMIT		548200	5.22	473911	7.91	270791	10.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-273938/4		1049512	5.72	926049	8.41	527653	10.65
CCV 240-273938/5		1016802	5.72	944626	8.41	483574	10.65
MB 240-273938/7		981773	5.72	878568	8.41	467678	10.65
240-77684-A-1 MS		1037495	5.72	929612	8.41	536748	10.65
240-77684-A-1 MSD		1058151	5.72	935379	8.41	559430	10.65
240-77761-1	TB-040418	992547	5.73	908428	8.41	492438	10.65
240-77761-2	MRC-MW50A-040417	980768	5.74	899652	8.41	472037	10.65
240-77761-3	MRC-MW90B-040417	970924	5.73	877117	8.41	490931	10.65
240-77761-4	MRC-MW96A-040417	979102	5.73	887548	8.41	467505	10.65
240-77761-5	MRC-MW96B-040417	985873	5.73	867990	8.41	464390	10.65
240-77761-6	MRC-MW17A-040517	1016513	5.72	907402	8.41	485105	10.65

FB = Fluorobenzene
FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
CBNZd5 = Chlorobenzene-d5
Area Limit = 50%-200% of internal standard area
DCBd4 = 1,4-Dichlorobenzene-d4
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: CCVIS 240-274127/3 Date Analyzed: 04/11/2017 08:51

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX963042.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1168586	5.72	896681	8.41	548505	10.66
UPPER LIMIT		2337172	6.22	1793362	8.91	1097010	11.16
LOWER LIMIT		584293	5.22	448341	7.91	274253	10.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-274127/4		1163855	5.73	929247	8.41	532378	10.65
CCV 240-274127/5		1160678	5.72	935304	8.41	483720	10.65
MB 240-274127/7		1088856	5.73	857674	8.41	453449	10.65
240-77761-6	MRC-MW17A-040517	1123683	5.73	901273	8.41	487311	10.65
240-77761-6 MS	MRC-MW17A-040517 MS	1123027	5.72	906890	8.41	509338	10.65
240-77761-6 MSD	MRC-MW17A-040517 MSD	1151371	5.72	925763	8.41	539026	10.65

FB = Fluorobenzene
FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
CBNZd5 = Chlorobenzene-d5
Area Limit = 50%-200% of internal standard area
DCBd4 = 1,4-Dichlorobenzene-d4
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: A3UX11 Start Date: 03/29/2017 09:21

Analysis Batch Number: 272388 End Date: 03/29/2017 15:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272388/1		03/29/2017 09:21	1	BFB70329.D	DB-624 0.18(mm)
STD8260 240-272388/2 IC		03/29/2017 09:53	1	UXJ1042.D	DB-624 0.18(mm)
STD8260 240-272388/3 IC		03/29/2017 10:15	1	UXJ1043.D	DB-624 0.18(mm)
STD8260 240-272388/4 ICIS		03/29/2017 10:38	1	UXJ1044.D	DB-624 0.18(mm)
STD8260 240-272388/5 IC		03/29/2017 11:01	1	UXJ1045.D	DB-624 0.18(mm)
STD8260 240-272388/6 IC		03/29/2017 11:24	1	UXJ1046.D	DB-624 0.18(mm)
STD8260 240-272388/7 IC		03/29/2017 11:46	1	UXJ1047.D	DB-624 0.18(mm)
STD6 240-272388/8 IC		03/29/2017 12:31	1	UXJ1049.D	DB-624 0.18(mm)
STD5 240-272388/9 IC		03/29/2017 12:54	1	UXJ1050.D	DB-624 0.18(mm)
STD4 240-272388/10 IC		03/29/2017 13:16	1	UXJ1051.D	DB-624 0.18(mm)
STD3 240-272388/11 IC		03/29/2017 13:39	1	UXJ1052.D	DB-624 0.18(mm)
STD2 240-272388/12 IC		03/29/2017 14:02	1	UXJ1053.D	DB-624 0.18(mm)
STD1 240-272388/13 IC		03/29/2017 14:24	1	UXJ1054.D	DB-624 0.18(mm)
ICV 240-272388/15		03/29/2017 14:47	1	UXJ1055.D	DB-624 0.18(mm)
ICV 240-272388/14		03/29/2017 15:09	1	UXJ1056.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: A3UX11 Start Date: 03/31/2017 09:45

Analysis Batch Number: 272768 End Date: 03/31/2017 20:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272768/1		03/31/2017 09:45	1	BFB70331.D	DB-624 0.18(mm)
CCVIS 240-272768/2		03/31/2017 10:13	1	UXJ1120.D	DB-624 0.18(mm)
LCS 240-272768/4		03/31/2017 10:35	1	UXJ1121.D	DB-624 0.18(mm)
CCV 240-272768/3		03/31/2017 10:58	1	UXJ1122.D	DB-624 0.18(mm)
ZZZZZ		03/31/2017 11:21	1		DB-624 0.18(mm)
MB 240-272768/6		03/31/2017 11:44	1	UXJ1124.D	DB-624 0.18(mm)
ZZZZZ		03/31/2017 12:07	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 12:29	1		DB-624 0.18(mm)
240-77416-5		03/31/2017 12:52	1	UXJ1127.D	DB-624 0.18(mm)
ZZZZZ		03/31/2017 13:15	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 13:38	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 14:00	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 14:23	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 14:46	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:09	3.33		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:31	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 15:54	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 16:17	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 16:40	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:02	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:25	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 17:48	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 18:10	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 18:33	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 18:56	1		DB-624 0.18(mm)
ZZZZZ		03/31/2017 19:18	1		DB-624 0.18(mm)
200-37906-B-3 MS		03/31/2017 19:41	3.33	UXJ1145.D	DB-624 0.18(mm)
200-37906-B-3 MSD		03/31/2017 20:04	3.33	UXJ1146.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: A3UX12 Start Date: 03/30/2017 12:55

Analysis Batch Number: 272636 End Date: 03/30/2017 18:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272636/2		03/30/2017 12:55	1	BFB3508.D	DB-624 0.18(mm)
STD8260 240-272636/6 IC		03/30/2017 14:15	1	U1256165.D	DB-624 0.18(mm)
STD8260 240-272636/7 IC		03/30/2017 14:40	1	U1256166.D	DB-624 0.18(mm)
STD8260 240-272636/8 IC		03/30/2017 15:04	1	U1256167.D	DB-624 0.18(mm)
ICIS 240-272636/9		03/30/2017 15:28	1	U1256168a.D	DB-624 0.18(mm)
STD8260 240-272636/10 IC		03/30/2017 15:53	1	U1256169.D	DB-624 0.18(mm)
STD8260 240-272636/11 IC		03/30/2017 16:17	1	U1256170.D	DB-624 0.18(mm)
ICV 240-272636/19		03/30/2017 17:09	1	U1256172.D	DB-624 0.18(mm)
MDLV 240-272636/21		03/30/2017 17:34	1		DB-624 0.18(mm)
MDLV 240-272636/22		03/30/2017 17:59	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 18:23	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: A3UX12 Start Date: 04/07/2017 15:23

Analysis Batch Number: 273820 End Date: 04/08/2017 02:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-273820/1		04/07/2017 15:23	1	BFB3516.D	DB-624 0.18(mm)
CCVIS 240-273820/3		04/07/2017 15:51	1	U1256397.D	DB-624 0.18(mm)
LCS 240-273820/4		04/07/2017 16:15	1	U1256398.D	DB-624 0.18(mm)
CCV 240-273820/5		04/07/2017 16:40	1	U1256399.D	DB-624 0.18(mm)
MDLV 240-273820/6		04/07/2017 17:03	1		DB-624 0.18(mm)
MB 240-273820/7		04/07/2017 17:28	1	U1256401.D	DB-624 0.18(mm)
240-77601-2		04/07/2017 18:18	12.5	U1256403.D	DB-624 0.18(mm)
240-77601-3		04/07/2017 18:43	1	U1256404.D	DB-624 0.18(mm)
240-77601-4		04/07/2017 19:07	1	U1256405.D	DB-624 0.18(mm)
240-77601-5		04/07/2017 19:32	1	U1256406.D	DB-624 0.18(mm)
240-77566-1		04/07/2017 19:57	1	U1256407.D	DB-624 0.18(mm)
240-77566-2		04/07/2017 20:20	1	U1256408.D	DB-624 0.18(mm)
240-77566-3		04/07/2017 20:44	1	U1256409A.D	DB-624 0.18(mm)
240-77566-4		04/07/2017 21:08	1	U1256410.D	DB-624 0.18(mm)
240-77566-5		04/07/2017 21:32	1	U1256411.D	DB-624 0.18(mm)
240-77566-6		04/07/2017 21:57	1	U1256412.D	DB-624 0.18(mm)
240-77566-7		04/07/2017 22:22	1	U1256413.D	DB-624 0.18(mm)
240-77566-8		04/07/2017 22:47	1	U1256414.D	DB-624 0.18(mm)
ZZZZZ		04/07/2017 23:11	1		DB-624 0.18(mm)
ZZZZZ		04/07/2017 23:35	1		DB-624 0.18(mm)
240-77601-1		04/07/2017 23:59	1	U1256417A.D	DB-624 0.18(mm)
240-77601-2 MS		04/08/2017 02:02	12.5	U1256422.D	DB-624 0.18(mm)
240-77601-2 MSD		04/08/2017 02:27	12.5	U1256423.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: A3UX16 Start Date: 03/29/2017 13:36

Analysis Batch Number: 272263 End Date: 03/29/2017 21:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272263/1		03/29/2017 13:36	1	BFB5200.D	DB-624 0.18(mm)
STD8260 240-272263/6 IC		03/29/2017 14:02	1	UXM1388.D	DB-624 0.18(mm)
STD8260 240-272263/7 IC		03/29/2017 14:25	1	UXM1389.D	DB-624 0.18(mm)
STD8260 240-272263/8 IC		03/29/2017 14:48	1	UXM1390.D	DB-624 0.18(mm)
ICIS 240-272263/9		03/29/2017 15:11	1	UXM1391.D	DB-624 0.18(mm)
STD8260 240-272263/10 IC		03/29/2017 15:34	1	UXM1392.D	DB-624 0.18(mm)
STD8260 240-272263/11 IC		03/29/2017 15:56	1	UXM1393.D	DB-624 0.18(mm)
STDA9 240-272263/13 IC		03/29/2017 16:47	1		DB-624 0.18(mm)
STDA9 240-272263/14 IC		03/29/2017 17:10	1		DB-624 0.18(mm)
STDA9 240-272263/15 IC		03/29/2017 17:33	1		DB-624 0.18(mm)
STDA9 240-272263/16 IC		03/29/2017 17:55	1		DB-624 0.18(mm)
STDA9 240-272263/17 IC		03/29/2017 18:18	1		DB-624 0.18(mm)
STDA9 240-272263/18 IC		03/29/2017 18:41	1		DB-624 0.18(mm)
ICV 240-272263/20		03/29/2017 19:27	1	UXM1402.D	DB-624 0.18(mm)
ICV 240-272263/21		03/29/2017 19:50	1		DB-624 0.18(mm)
MDLV 240-272263/22		03/29/2017 20:13	1		DB-624 0.18(mm)
MDLV 240-272263/23		03/29/2017 20:37	1		DB-624 0.18(mm)
MDLV 240-272263/24		03/29/2017 21:00	1		DB-624 0.18(mm)
ZZZZZ		03/29/2017 21:23	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: A3UX16 Start Date: 04/10/2017 11:55

Analysis Batch Number: 274011 End Date: 04/10/2017 15:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-274011/1		04/10/2017 11:55	1	BFB5211.D	DB-624 0.18(mm)
CCVIS 240-274011/3		04/10/2017 12:23	1	UXM1627.D	DB-624 0.18(mm)
LCS 240-274011/4		04/10/2017 12:46	1	UXM1628.D	DB-624 0.18(mm)
CCV 240-274011/6		04/10/2017 13:32	1	UXM1630.D	DB-624 0.18(mm)
MDLV 240-274011/7		04/10/2017 13:56	1		DB-624 0.18(mm)
MB 240-274011/8		04/10/2017 14:19	1	UXM1632.D	DB-624 0.18(mm)
240-77416-3		04/10/2017 14:43	10	UXM1633.D	DB-624 0.18(mm)
240-77416-4		04/10/2017 15:06	20	UXM1634.D	DB-624 0.18(mm)
240-77416-3 MS		04/10/2017 15:30	10	UXM1635.D	DB-624 0.18(mm)
240-77416-3 MSD		04/10/2017 15:53	10	UXM1636.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: A3UX9 Start Date: 10/31/2016 12:14

Analysis Batch Number: 253710 End Date: 10/31/2016 21:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-253710/1		10/31/2016 12:14	1	BFB3479.D	DB-624 0.18(mm)
STD8260 240-253710/8 IC		10/31/2016 13:31	1	UX959470.D	DB-624 0.18(mm)
STD8260 240-253710/9 IC		10/31/2016 13:55	1	UX959471.D	DB-624 0.18(mm)
STD8260 240-253710/10 IC		10/31/2016 14:20	1	UX959472.D	DB-624 0.18(mm)
ICIS 240-253710/11		10/31/2016 14:44	1	UX959473.D	DB-624 0.18(mm)
STD8260 240-253710/12 IC		10/31/2016 15:08	1	UX959474.D	DB-624 0.18(mm)
STD8260 240-253710/13 IC		10/31/2016 15:31	1	UX959475.D	DB-624 0.18(mm)
STDA9 240-253710/15 IC		10/31/2016 16:20	1	UX959477.D	DB-624 0.18(mm)
STDA9 240-253710/16 IC		10/31/2016 16:44	1	UX959478.D	DB-624 0.18(mm)
STDA9 240-253710/17 IC		10/31/2016 17:08	1	UX959479.D	DB-624 0.18(mm)
STDA9 240-253710/18 IC		10/31/2016 17:32	1	UX959480.D	DB-624 0.18(mm)
STDA9 240-253710/19 IC		10/31/2016 17:56	1	UX959481.D	DB-624 0.18(mm)
STDA9 240-253710/20 IC		10/31/2016 18:20	1	UX959482.D	DB-624 0.18(mm)
ICV 240-253710/22		10/31/2016 19:09	1	UX959484.D	DB-624 0.18(mm)
ICV 240-253710/23		10/31/2016 19:33	1	UX959485.D	DB-624 0.18(mm)
MDLV 240-253710/24		10/31/2016 19:57	1		DB-624 0.18(mm)
MDLV 240-253710/25		10/31/2016 20:22	1		DB-624 0.18(mm)
MDLV 240-253710/26		10/31/2016 20:46	1		DB-624 0.18(mm)
ZZZZZ		10/31/2016 21:10	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: A3UX9 Start Date: 04/07/2017 08:24

Analysis Batch Number: 273734 End Date: 04/07/2017 16:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-273734/1		04/07/2017 08:24	1	BFB3620.D	DB-624 0.18(mm)
CCVIS 240-273734/3		04/07/2017 08:52	1	UX962956.D	DB-624 0.18(mm)
LCS 240-273734/4		04/07/2017 09:16	1	UX962957.D	DB-624 0.18(mm)
CCV 240-273734/5		04/07/2017 09:40	1	UX962958.D	DB-624 0.18(mm)
MDLV 240-273734/6		04/07/2017 10:04	1		DB-624 0.18(mm)
MB 240-273734/7		04/07/2017 10:28	1	UX962960.D	DB-624 0.18(mm)
ZZZZZ		04/07/2017 11:15	1		DB-624 0.18(mm)
ZZZZZ		04/07/2017 11:39	1		DB-624 0.18(mm)
ZZZZZ		04/07/2017 12:03	1		DB-624 0.18(mm)
ZZZZZ		04/07/2017 12:58	1		DB-624 0.18(mm)
ZZZZZ		04/07/2017 13:21	1		DB-624 0.18(mm)
240-77416-1		04/07/2017 13:45	1	UX962966.D	DB-624 0.18(mm)
240-77416-2		04/07/2017 14:09	1.25	UX962967.D	DB-624 0.18(mm)
240-77416-3		04/07/2017 14:33	10	UX962968.D	DB-624 0.18(mm)
240-77416-4		04/07/2017 14:57	20	UX962969.D	DB-624 0.18(mm)
240-77416-6		04/07/2017 15:20	12.5	UX962970.D	DB-624 0.18(mm)
240-77416-3 MS		04/07/2017 15:44	10	UX962971.D	DB-624 0.18(mm)
240-77416-3 MSD		04/07/2017 16:08	10	UX962972.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: A3UX9 Start Date: 04/10/2017 08:11

Analysis Batch Number: 273938 End Date: 04/10/2017 18:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-273938/1		04/10/2017 08:11	1	BFB3621.D	DB-624 0.18(mm)
CCVIS 240-273938/3		04/10/2017 08:36	1	UX962992.D	DB-624 0.18(mm)
LCS 240-273938/4		04/10/2017 09:00	1	UX962993.D	DB-624 0.18(mm)
CCV 240-273938/5		04/10/2017 09:24	1	UX962994.D	DB-624 0.18(mm)
MDLV 240-273938/6		04/10/2017 09:48	1		DB-624 0.18(mm)
MB 240-273938/7		04/10/2017 10:12	1	UX962996.D	DB-624 0.18(mm)
ZZZZZ		04/10/2017 10:55	10		DB-624 0.18(mm)
ZZZZZ		04/10/2017 11:19	10		DB-624 0.18(mm)
ZZZZZ		04/10/2017 11:43	1		DB-624 0.18(mm)
ZZZZZ		04/10/2017 12:08	1		DB-624 0.18(mm)
ZZZZZ		04/10/2017 12:32	1		DB-624 0.18(mm)
ZZZZZ		04/10/2017 12:55	1		DB-624 0.18(mm)
ZZZZZ		04/10/2017 13:19	1		DB-624 0.18(mm)
ZZZZZ		04/10/2017 13:43	1		DB-624 0.18(mm)
240-77684-A-1 MS		04/10/2017 14:07	10	UX963005.D	DB-624 0.18(mm)
240-77684-A-1 MSD		04/10/2017 14:31	10	UX963006.D	DB-624 0.18(mm)
240-77761-1		04/10/2017 15:19	1	UX963008.D	DB-624 0.18(mm)
240-77761-2		04/10/2017 15:43	1	UX963009.D	DB-624 0.18(mm)
240-77761-3		04/10/2017 16:07	1	UX963010.D	DB-624 0.18(mm)
240-77761-4		04/10/2017 16:30	500	UX963011.D	DB-624 0.18(mm)
240-77761-5		04/10/2017 16:54	12.5	UX963012.D	DB-624 0.18(mm)
240-77761-6		04/10/2017 17:16	1.25	UX963013.D	DB-624 0.18(mm)
ZZZZZ		04/10/2017 17:40	1		DB-624 0.18(mm)
ZZZZZ		04/10/2017 18:04	1		DB-624 0.18(mm)
ZZZZZ		04/10/2017 18:28	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: A3UX9 Start Date: 04/11/2017 08:24

Analysis Batch Number: 274127 End Date: 04/11/2017 18:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-274127/1		04/11/2017 08:24	1	BFB3623.D	DB-624 0.18(mm)
CCVIS 240-274127/3		04/11/2017 08:51	1	UX963042.D	DB-624 0.18(mm)
LCS 240-274127/4		04/11/2017 09:15	1	UX963043.D	DB-624 0.18(mm)
CCV 240-274127/5		04/11/2017 09:39	1	UX963044.D	DB-624 0.18(mm)
ZZZZZ		04/11/2017 10:02	1		DB-624 0.18(mm)
MDLV 240-274127/6		04/11/2017 10:26	1		DB-624 0.18(mm)
MB 240-274127/7		04/11/2017 10:51	1	UX963047.D	DB-624 0.18(mm)
240-77761-6		04/11/2017 12:10	4	UX963048.D	DB-624 0.18(mm)
ZZZZZ		04/11/2017 12:34	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 12:58	1.25		DB-624 0.18(mm)
ZZZZZ		04/11/2017 13:22	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 13:46	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 14:10	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 14:34	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 14:58	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 15:22	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 15:46	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 16:10	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 16:34	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 16:59	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 17:21	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 17:45	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 18:09	1		DB-624 0.18(mm)
240-77761-6 MS		04/11/2017 18:33	4	UX963064.D	DB-624 0.18(mm)
240-77761-6 MSD		04/11/2017 18:55	4	UX963065.D	DB-624 0.18(mm)

Method 522

1,4 Dioxane (GC/MS SIM) by Method 522

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Lab File ID: Z24230_01.D BFB Injection Date: 03/08/2017

Instrument ID: CHZ.i BFB Injection Time: 10:08

Analysis Batch No.: 114713

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 80.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.3	
175	5.0 - 9.0 % of mass 174	4.9	(7.2) 1
176	>95.0 but <101.0 % of mass 174	66.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-114713/2	Z24230_02.D	03/08/2017	10:20
	IC 200-114713/3	Z24230_03.D	03/08/2017	10:37
	IC 200-114713/4	Z24230_04.D	03/08/2017	10:54
	ICIS 200-114713/5	Z24230_05.D	03/08/2017	11:12
	IC 200-114713/6	Z24230_06.D	03/08/2017	11:29
	IC 200-114713/7	Z24230_07.D	03/08/2017	11:46
	IC 200-114713/8	Z24230_08.D	03/08/2017	12:03
	ICV 200-114713/9	Z24230_09.D	03/08/2017	12:21

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Lab File ID: Z24401_03.D BFB Injection Date: 03/22/2017

Instrument ID: CHZ.i BFB Injection Time: 15:37

Analysis Batch No.: 115085

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 80.0 % of mass 95	45.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	80.7	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	>95.0 but <101.0 % of mass 174	77.4	(95.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVL 200-115085/4	Z24401_04.D	03/22/2017	15:48
	CCV 200-115901/39	Z24775_39.D	04/18/2017	20:09
	LLCS 200-115891/2-A	Z24775_40.D	04/18/2017	20:26
	LLCSD 200-115891/3-A	Z24775_41.D	04/18/2017	20:43
	MB 200-115891/1-A	Z24775_42.D	04/18/2017	21:00
MRC-MW37A-032917	240-77416-1	Z24775_43.D	04/18/2017	21:17
MRC-MW37B-032917	240-77416-2	Z24775_44.D	04/18/2017	21:34
MRC-MW114A-032917	240-77416-3	Z24775_45.D	04/18/2017	21:51
MRC-MW113A-032917	240-77416-4	Z24775_46.D	04/18/2017	22:07
MRC-MW14A-033017	240-77566-1	Z24775_47.D	04/18/2017	22:24
MRC-MW14C-033017	240-77566-2	Z24775_48.D	04/18/2017	22:41
MRC-MW21A-040317	240-77601-1	Z24775_49.D	04/18/2017	22:58
MRC-MW22A-040317	240-77601-3	Z24775_51.D	04/18/2017	23:32
MRC-MW19A-040317	240-77601-4	Z24775_52.D	04/18/2017	23:48
	CCV 200-115901/53	Z24775_53.D	04/19/2017	00:05
MRC-MW90B-040417	240-77761-3	Z24775_54.D	04/19/2017	00:22
MRC-MW96A-040417	240-77761-4	Z24775_55.D	04/19/2017	00:39
MRC-MW96B-040417	240-77761-5	Z24775_56.D	04/19/2017	00:56
MRC-MW17A-040517	240-77761-6	Z24775_57.D	04/19/2017	01:13
MRC-MW07A-040517	240-77761-7	Z24775_58.D	04/19/2017	01:29
	CCV 200-115901/64	Z24775_64.D	04/19/2017	03:11
	CCVL 200-115937/1	Z24791_01.D	04/19/2017	09:48
MRC-MW21B-040317	240-77601-2	Z24791_09.D	04/19/2017	12:03
	CCV 200-115937/12	Z24791_12.D	04/19/2017	12:54

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-77416-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 200-114713/9 Calibration Date: 03/08/2017 12:21

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24230_09.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.5752	0.0500	184	200	-7.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVL 200-115085/4 Calibration Date: 03/22/2017 15:48

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24401_04.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7735	0.0500	12.4	10.0	23.9	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6057	0.0500	502	500	0.3	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCV 200-115901/39 Calibration Date: 04/18/2017 20:09

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24775_39.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7310	0.0500	117	100	17.1	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7091	0.0500	587	500	17.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCV 200-115901/53 Calibration Date: 04/19/2017 00:05

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24775_53.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6517	0.0500	835	800	4.4	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.6674	0.0500	553	500	10.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCV 200-115901/64 Calibration Date: 04/19/2017 03:11

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24775_64.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7068	0.0500	113	100	13.2	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7098	0.0500	588	500	17.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVL 200-115937/1 Calibration Date: 04/19/2017 09:48

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24791_01.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.6259	0.0500	10.0	10.0	0.2	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.5851	0.0500	485	500	-3.1	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCV 200-115937/12 Calibration Date: 04/19/2017 12:54

Instrument ID: CHZ.i Calib Start Date: 03/08/2017 10:20

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 03/08/2017 12:03

Lab File ID: Z24791_12.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.6245	0.7031	0.0500	113	100	12.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6037	0.7268	0.0500	602	500	20.4	30.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Lab File ID: Z24775_42.D Lab Sample ID: MB 200-115891/1-A

Matrix: Water Date Extracted: 04/17/2017 21:30

Instrument ID: CHZ.i Date Analyzed: 04/18/2017 21:00

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LLCS 200-115891/2-A	Z24775_40.D	04/18/2017 20:26
	LLCSD 200-115891/3-A	Z24775_41.D	04/18/2017 20:43
MRC-MW37A-032917	240-77416-1	Z24775_43.D	04/18/2017 21:17
MRC-MW37B-032917	240-77416-2	Z24775_44.D	04/18/2017 21:34
MRC-MW114A-032917	240-77416-3	Z24775_45.D	04/18/2017 21:51
MRC-MW113A-032917	240-77416-4	Z24775_46.D	04/18/2017 22:07
MRC-MW14A-033017	240-77566-1	Z24775_47.D	04/18/2017 22:24
MRC-MW14C-033017	240-77566-2	Z24775_48.D	04/18/2017 22:41
MRC-MW21A-040317	240-77601-1	Z24775_49.D	04/18/2017 22:58
MRC-MW22A-040317	240-77601-3	Z24775_51.D	04/18/2017 23:32
MRC-MW19A-040317	240-77601-4	Z24775_52.D	04/18/2017 23:48
MRC-MW90B-040417	240-77761-3	Z24775_54.D	04/19/2017 00:22
MRC-MW96A-040417	240-77761-4	Z24775_55.D	04/19/2017 00:39
MRC-MW96B-040417	240-77761-5	Z24775_56.D	04/19/2017 00:56
MRC-MW17A-040517	240-77761-6	Z24775_57.D	04/19/2017 01:13
MRC-MW07A-040517	240-77761-7	Z24775_58.D	04/19/2017 01:29
MRC-MW21B-040317	240-77601-2	Z24791_09.D	04/19/2017 12:03

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-115891/1-A

Matrix: Water | Lab File ID: Z24775_42.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/18/2017 21:00

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	84		46-130

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW37A-032917	240-77416-1	67
MRC-MW37B-032917	240-77416-2	67
MRC-MW114A-032917	240-77416-3	49
MRC-MW113A-032917	240-77416-4	81
MRC-MW14A-033017	240-77566-1	77
MRC-MW14C-033017	240-77566-2	61
MRC-MW21A-040317	240-77601-1	65
MRC-MW21B-040317	240-77601-2	56
MRC-MW22A-040317	240-77601-3	64
MRC-MW19A-040317	240-77601-4	68
MRC-MW90B-040417	240-77761-3	96
MRC-MW96A-040417	240-77761-4	60
MRC-MW96B-040417	240-77761-5	78
MRC-MW17A-040517	240-77761-6	63
MRC-MW07A-040517	240-77761-7	85
	MB 200-115891/1-A	84
	LLCS 200-115891/2-A	67

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
	LLCSD 200-115891/3-A	88

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	50-150

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LOW LEVEL CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24775_40.D

Lab ID: LLCS 200-115891/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LLCS CONCENTRATION (ug/L)	LLCS % REC	QC LIMITS REC	#
1,4-Dioxane	0.200	0.131 J	66	50-150	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LOW LEVEL CONTROL STANDARD DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24775_41.D

Lab ID: LLCSD 200-115891/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LLCSD CONCENTRATION (ug/L)	LLCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	0.200	0.213	106	47	50	50-150	

Column to be used to flag recovery and RPD values

FORM III 522

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Sample No.: ICIS 200-114713/5 Date Analyzed: 03/08/2017 11:12

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24230_05.D Heated Purge: (Y/N) N

Calibration ID: 36785

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224595	3.32				
UPPER LIMIT		336893	3.82				
LOWER LIMIT		112298	2.82				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-114713/9		202920	3.32				
CCVL 200-115085/4		270907	3.25				
CCV 200-115901/39		207763	3.23				
LLCS 200-115891/2-A		230342	3.23				
LLCSD 200-115891/3-A		219145	3.21				
MB 200-115891/1-A		233431	3.23				
240-77416-1	MRC-MW37A-032917	196165	3.18				
240-77416-2	MRC-MW37B-032917	218635	3.20				
240-77416-3	MRC-MW114A-032917	210180	3.19				
240-77416-4	MRC-MW113A-032917	197624	3.19				
240-77566-1	MRC-MW14A-033017	225662	3.22				
240-77566-2	MRC-MW14C-033017	199447	3.19				
240-77601-1	MRC-MW21A-040317	215846	3.20				
240-77601-3	MRC-MW22A-040317	215610	3.22				
240-77601-4	MRC-MW19A-040317	200178	3.20				
CCV 200-115901/53		202616	3.22				
240-77761-3	MRC-MW90B-040417	209664	3.20				
240-77761-4	MRC-MW96A-040417	224696	3.22				
240-77761-5	MRC-MW96B-040417	218692	3.22				
240-77761-6	MRC-MW17A-040517	223434	3.23				
240-77761-7	MRC-MW07A-040517	197532	3.25				
CCV 200-115901/64		212915	3.24				
CCVL 200-115937/1		171424	3.19				
240-77601-2	MRC-MW21B-040317	194600	3.25				
CCV 200-115937/12		183828	3.21				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-114713/1		03/08/2017 10:08	1	Z24230_01.D	Rxi-5ms 0.25(mm)
IC 200-114713/2		03/08/2017 10:20	1	Z24230_02.D	Rxi-5ms 0.25(mm)
IC 200-114713/3		03/08/2017 10:37	1	Z24230_03.D	Rxi-5ms 0.25(mm)
IC 200-114713/4		03/08/2017 10:54	1	Z24230_04.D	Rxi-5ms 0.25(mm)
ICIS 200-114713/5		03/08/2017 11:12	1	Z24230_05.D	Rxi-5ms 0.25(mm)
IC 200-114713/6		03/08/2017 11:29	1	Z24230_06.D	Rxi-5ms 0.25(mm)
IC 200-114713/7		03/08/2017 11:46	1	Z24230_07.D	Rxi-5ms 0.25(mm)
IC 200-114713/8		03/08/2017 12:03	1	Z24230_08.D	Rxi-5ms 0.25(mm)
ICV 200-114713/9		03/08/2017 12:21	1	Z24230_09.D	Rxi-5ms 0.25(mm)
CCVL 200-114713/10		03/08/2017 13:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 13:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 14:43	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 15:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 16:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:02	1		Rxi-5ms 0.25(mm)
CCV 200-114713/23		03/08/2017 17:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 17:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 18:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 19:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 20:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:07	1		Rxi-5ms 0.25(mm)
CCV 200-114713/37		03/08/2017 21:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 21:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 22:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/08/2017 23:42	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/08/2017 10:08

Analysis Batch Number: 114713 End Date: 03/09/2017 09:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/09/2017 00:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:17	1		Rxi-5ms 0.25(mm)
CCV 200-114713/48		03/09/2017 00:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 00:51	1		Rxi-5ms 0.25(mm)
CCV 200-114713/50		03/09/2017 01:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/09/2017 09:34	1		Rxi-5ms 0.25(mm)
CCV 200-114713/54		03/09/2017 09:50	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Instrument ID: CHZ.i Start Date: 03/22/2017 15:37

Analysis Batch Number: 115085 End Date: 03/23/2017 09:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-115085/3		03/22/2017 15:37	1	Z24401_03.D	Rxi-5ms 0.25(mm)
CCVL 200-115085/4		03/22/2017 15:48	1	Z24401_04.D	Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 16:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 17:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 18:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:12	1		Rxi-5ms 0.25(mm)
CCV 200-115085/17		03/22/2017 19:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 19:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 20:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 21:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 22:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:09	1		Rxi-5ms 0.25(mm)
CCV 200-115085/31		03/22/2017 23:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/22/2017 23:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 00:50	1		Rxi-5ms 0.25(mm)
CCV 200-115085/37		03/23/2017 01:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 08:57	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		03/23/2017 09:13	2		Rxi-5ms 0.25(mm)
CCV 200-115085/40		03/23/2017 09:30	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/18/2017 09:24

Analysis Batch Number: 115901 End Date: 04/19/2017 09:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-115901/1		04/18/2017 09:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 09:43	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 10:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 10:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 10:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 10:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 11:07	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 11:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 11:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 11:58	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 12:15	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 12:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 12:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 13:05	1		Rxi-5ms 0.25(mm)
CCV 200-115901/15		04/18/2017 13:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 13:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 13:56	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 14:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 14:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 14:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 15:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 15:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 15:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 15:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 16:11	1		Rxi-5ms 0.25(mm)
CCV 200-115901/26		04/18/2017 16:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 16:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 17:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 17:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 17:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 17:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 18:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 18:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 18:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 19:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 19:19	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 19:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 19:52	1		Rxi-5ms 0.25(mm)
CCV 200-115901/39		04/18/2017 20:09	1	Z24775_39.D	Rxi-5ms 0.25(mm)
LLCS 200-115891/2-A		04/18/2017 20:26	1	Z24775_40.D	Rxi-5ms 0.25(mm)
LLCSD 200-115891/3-A		04/18/2017 20:43	1	Z24775_41.D	Rxi-5ms 0.25(mm)
MB 200-115891/1-A		04/18/2017 21:00	1	Z24775_42.D	Rxi-5ms 0.25(mm)
240-77416-1		04/18/2017 21:17	1	Z24775_43.D	Rxi-5ms 0.25(mm)
240-77416-2		04/18/2017 21:34	1	Z24775_44.D	Rxi-5ms 0.25(mm)
240-77416-3		04/18/2017 21:51	1	Z24775_45.D	Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/18/2017 09:24

Analysis Batch Number: 115901 End Date: 04/19/2017 09:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
240-77416-4		04/18/2017 22:07	1	Z24775_46.D	Rxi-5ms 0.25(mm)
240-77566-1		04/18/2017 22:24	1	Z24775_47.D	Rxi-5ms 0.25(mm)
240-77566-2		04/18/2017 22:41	1	Z24775_48.D	Rxi-5ms 0.25(mm)
240-77601-1		04/18/2017 22:58	1	Z24775_49.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/18/2017 23:15	1		Rxi-5ms 0.25(mm)
240-77601-3		04/18/2017 23:32	1	Z24775_51.D	Rxi-5ms 0.25(mm)
240-77601-4		04/18/2017 23:48	1	Z24775_52.D	Rxi-5ms 0.25(mm)
CCV 200-115901/53		04/19/2017 00:05	1	Z24775_53.D	Rxi-5ms 0.25(mm)
240-77761-3		04/19/2017 00:22	1	Z24775_54.D	Rxi-5ms 0.25(mm)
240-77761-4		04/19/2017 00:39	1	Z24775_55.D	Rxi-5ms 0.25(mm)
240-77761-5		04/19/2017 00:56	1	Z24775_56.D	Rxi-5ms 0.25(mm)
240-77761-6		04/19/2017 01:13	1	Z24775_57.D	Rxi-5ms 0.25(mm)
240-77761-7		04/19/2017 01:29	1	Z24775_58.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 01:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 02:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 02:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 02:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 02:54	1		Rxi-5ms 0.25(mm)
CCV 200-115901/64		04/19/2017 03:11	1	Z24775_64.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 03:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 03:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 04:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 04:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 04:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 04:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 05:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 05:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 05:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 05:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 06:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 06:32	1		Rxi-5ms 0.25(mm)
CCV 200-115901/77		04/19/2017 06:49	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 07:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 07:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 07:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 07:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 08:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 08:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 08:47	1		Rxi-5ms 0.25(mm)
CCV 200-115901/85		04/19/2017 09:04	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/19/2017 09:48

Analysis Batch Number: 115937 End Date: 04/20/2017 07:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-115937/1		04/19/2017 09:48	1	Z24791_01.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 10:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 10:21	2		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 10:38	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 10:55	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 11:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 11:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 11:46	10		Rxi-5ms 0.25(mm)
240-77601-2		04/19/2017 12:03	5	Z24791_09.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 12:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 12:37	1		Rxi-5ms 0.25(mm)
CCV 200-115937/12		04/19/2017 12:54	1	Z24791_12.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 13:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 13:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 13:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 14:02	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 14:19	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 14:36	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 14:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 15:10	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 15:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 15:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 16:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 16:18	1		Rxi-5ms 0.25(mm)
CCV 200-115937/25		04/19/2017 16:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 16:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 17:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 17:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 17:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 18:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 18:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 18:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 18:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 19:09	1		Rxi-5ms 0.25(mm)
CCV 200-115937/35		04/19/2017 19:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 19:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 19:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 20:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 20:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 20:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 21:07	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 21:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 21:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 21:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 22:14	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/19/2017 09:48

Analysis Batch Number: 115937 End Date: 04/20/2017 07:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/19/2017 22:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 22:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 23:05	1		Rxi-5ms 0.25(mm)
CCV 200-115937/49		04/19/2017 23:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 23:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/19/2017 23:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 00:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 00:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 00:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 01:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 01:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 01:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 01:54	1		Rxi-5ms 0.25(mm)
CCV 200-115937/59		04/20/2017 02:10	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 02:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 02:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 03:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 03:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 03:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 03:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 04:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 04:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 04:43	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 05:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 05:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 05:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 05:50	1		Rxi-5ms 0.25(mm)
CCV 200-115937/73		04/20/2017 06:07	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 06:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 06:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 06:58	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 07:15	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/20/2017 07:32	1		Rxi-5ms 0.25(mm)
CCV 200-115937/79		04/20/2017 07:48	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Batch Number: 115891 Batch Start Date: 04/17/17 21:30 Batch Analyst: Litchfield, Brian D

Batch Method: 3535A Batch End Date: 04/17/17 22:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00026	AnalysisComment	
MB 200-115891/1		3535A, 522		100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
LLCS 200-115891/2		3535A, 522		100 mL	2 mL	10 uL	100 uL	unfamiliar w/new cartridge. High flow rate.	
LLCSD 200-115891/3		3535A, 522		100 mL	2 mL	10 uL	100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77416-J-1	MRC-MW37A-032917	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77416-J-2	MRC-MW37B-032917	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77416-E-3	MRC-MW114A-032917	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77416-D-4	MRC-MW113A-032917	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77566-D-1	MRC-MW14A-033017	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77566-D-2	MRC-MW14C-033017	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77601-E-1	MRC-MW21A-040317	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Batch Number: 115891 Batch Start Date: 04/17/17 21:30 Batch Analyst: Litchfield, Brian D

Batch Method: 3535A Batch End Date: 04/17/17 22:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00026	AnalysisComment	
240-77601-J-2	MRC-MW21B-040317	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77601-D-3	MRC-MW22A-040317	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77601-E-4	MRC-MW19A-040317	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77761-D-3	MRC-MW90B-040417	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77761-D-4	MRC-MW96A-040417	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77761-D-5	MRC-MW96B-040417	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77761-D-6	MRC-MW17A-040517	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	
240-77761-A-7	MRC-MW07A-040517	3535A, 522	T	100 mL	2 mL		100 uL	unfamiliar w/new cartridge. High flow rate.	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-77416-1

SDG No.:

Batch Number: 115891 Batch Start Date: 04/17/17 21:30 Batch Analyst: Litchfield, Brian D

Batch Method: 3535A Batch End Date: 04/17/17 22:30

Batch Notes	
Acid ID	1018022
Acid Name	hcl
First End time	2230 4/17/17
Analyst ID - Reagent Drop Witness	MAP
Solvent Lot #	1023323
Solvent Name	mecl2
SPE Cartridge ID	022022-er
First Start time	2130 4/17/17

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method RSK-175

Dissolved Gases (GC) by Method RSK_175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: STD3 240-251578/5 Date Analyzed: 10/15/2016 15:31

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0101505.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE RT #		
INITIAL CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-251578/5 ICRT		10/15/2016 15:31	RSK0101505.D	3.34		
ICV 240-251578/9		10/15/2016 16:39	RSK0101509.D	3.34		

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: CCVRT 240-274140/3 Date Analyzed: 04/11/2017 12:02

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0411003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-274140/3		04/11/2017 12:02	RSK0411003.D	3.34		
MB 240-274140/4		04/11/2017 12:20	RSK0411004.D	3.34		
LCS 240-274140/5		04/11/2017 12:37	RSK0411005.D	3.34		
240-77545-D-2 MS		04/11/2017 13:11	RSK0411007.D	3.34		
240-77545-D-2 MSD		04/11/2017 13:28	RSK0411008.D	3.33		
CCV 240-274140/14		04/11/2017 15:11	RSK0411014.D	3.34		
240-77416-1	MRC-MW37A-032917	04/11/2017 17:46	RSK0411023.D	3.34		
240-77416-2	MRC-MW37B-032917	04/11/2017 18:03	RSK0411024.D	3.34		
CCV 240-274140/25		04/11/2017 18:20	RSK0411025.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Sample No.: CCVRT 240-274378/3 Date Analyzed: 04/12/2017 13:22

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0412003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-274378/3		04/12/2017 13:22	RSK0412003.D	3.34		
MB 240-274378/4		04/12/2017 13:39	RSK0412004.D	3.34		
LCS 240-274378/5		04/12/2017 13:56	RSK0412005.D	3.34		
240-77601-2	MRC-MW21B-040317	04/12/2017 14:31	RSK0412007.D	3.34		
CCV 240-274378/14		04/12/2017 16:31	RSK0412014.D	3.33		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Methane	17282 15031	14572 14891	15021	15273	Ave		15344.8970				6.4		30.0			
Ethene	13272 13787	13164 13601	13786	13941	Ave		13591.7814				2.3		30.0			
Acetylene	6429.5 6415.6	5892.3 6088.3	6401.9	6607.6	Ave		6305.86557				4.2		30.0			
Ethane	13684 14544	13730 14408	14353	14588	Ave		14217.7545				2.9		30.0			
Propane	13814 15013	13864 14908	14731	14670	Ave		14499.9021				3.6		30.0			
1,1,1-Trifluoroethane	7519.7 7756.9	8027.5	7602.5	8141.8	Ave		7809.65873				3.4		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 240-251578/9 Calibration Date: 10/15/2016 16:39

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0101509.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	12457		161	199	-18.8	30.0
Ethene	Ave	13592	11508		296	349	-15.3	30.0
Acetylene	Ave	6306	5081		260	323	-19.4	30.0
Ethane	Ave	14218	12173		320	374	-14.4	30.0
Propane	Ave	14500	12390		467	546	-14.6	30.0
1,1,1-Trifluoroethane	Ave	7810	6762		2640	3050	-13.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVRT 240-274140/3 Calibration Date: 04/11/2017 12:02

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0411003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15997		207	199	4.3	30.0
Ethene	Ave	13592	13866		356	349	2.0	30.0
Acetylene	Ave	6306	6399		328	323	1.5	30.0
Ethane	Ave	14218	14137		372	374	-0.6	30.0
Propane	Ave	14500	12579		475	548	-13.2	30.0
1,1,1-Trifluoroethane	Ave	7810	7059		2760	3050	-9.6	30.0

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCV 240-274140/14 Calibration Date: 04/11/2017 15:11

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0411014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15654		203	199	2.0	30.0
Ethene	Ave	13592	12958		333	349	-4.7	30.0
Acetylene	Ave	6306	5341		274	323	-15.3	30.0
Ethane	Ave	14218	13708		360	374	-3.6	30.0
Propane	Ave	14500	12264		463	548	-15.4	30.0
1,1,1-Trifluoroethane	Ave	7810	6551		2560	3050	-16.1	30.0

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCV 240-274140/25 Calibration Date: 04/11/2017 18:20

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0411025.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14732		191	199	-4.0	30.0
Ethene	Ave	13592	11792		303	349	-13.2	30.0
Acetylene	Ave	6306	4812		246	323	-23.7	30.0
Ethane	Ave	14218	12581		331	374	-11.5	30.0
Propane	Ave	14500	10967		414	548	-24.4	30.0
1,1,1-Trifluoroethane	Ave	7810	6062		2370	3050	-22.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCVRT 240-274378/3 Calibration Date: 04/12/2017 13:22

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0412003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15293		198	199	-0.3	30.0
Ethene	Ave	13592	12808		329	349	-5.8	30.0
Acetylene	Ave	6306	5097		261	323	-19.2	30.0
Ethane	Ave	14218	13445		354	374	-5.4	30.0
Propane	Ave	14500	12058		456	548	-16.8	30.0
1,1,1-Trifluoroethane	Ave	7810	6504		2540	3050	-16.7	30.0

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCV 240-274378/14 Calibration Date: 04/12/2017 16:31

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0412014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15375		199	199	0.2	30.0
Ethene	Ave	13592	12347		317	349	-9.2	30.0
Acetylene	Ave	6306	5063		259	323	-19.7	30.0
Ethane	Ave	14218	13255		349	374	-6.8	30.0
Propane	Ave	14500	11639		440	548	-19.7	30.0
1,1,1-Trifluoroethane	Ave	7810	6198		2420	3050	-20.6	30.0

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: MB 240-274140/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0411004.D Lab File ID:(2)

Date Analyzed:(1) 04/11/2017 12:20 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-274140/5	04/11/2017 12:37	
	240-77545-D-2 MS	04/11/2017 13:11	
	240-77545-D-2 MSD	04/11/2017 13:28	
MRC-MW37A-032917	240-77416-1	04/11/2017 17:46	
MRC-MW37B-032917	240-77416-2	04/11/2017 18:03	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274140/4

Matrix: Water | Lab File ID: RSK0411004.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 33(mL) | Date Analyzed: 04/11/2017 12:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274140 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-85-1	Ethene	0.13	U	0.50	0.13
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	0.080	U	0.50	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	93		76-121

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: MB 240-274378/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0412004.D Lab File ID:(2)

Date Analyzed:(1) 04/12/2017 13:39 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-274378/5	04/12/2017 13:56	
MRC-MW21B-040317	240-77601-2	04/12/2017 14:31	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-274378/4

Matrix: Water Lab File ID: RSK0412004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 33(mL) Date Analyzed: 04/12/2017 13:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 274378 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-85-1	Ethene	0.13	U	0.50	0.13
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	0.080	U	0.50	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	91		76-121

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-PLOT/Q ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TFE1 #
MRC-MW37A-032917	240-77416-1	85
MRC-MW37B-032917	240-77416-2	83
MRC-MW21B-040317	240-77601-2	92
	MB 240-274140/4	93
	MB 240-274378/4	91
	LCS 240-274140/5	88
	LCS 240-274378/5	84
	240-77545-D-2 MS	91
	240-77545-D-2 MSD	87

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	76-121

Column to be used to flag recovery values

FORM II RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0411005.D

Lab ID: LCS 240-274140/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Ethene	349	347	100	79-132	
Ethane	374	367	98	76-131	
Methane	199	203	102	80-130	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0412005.D

Lab ID: LCS 240-274378/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Ethene	349	339	97	79-132	
Ethane	374	356	95	76-131	
Methane	199	199	100	80-130	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0411007.D

Lab ID: 240-77545-D-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Ethene	1750	720	2510	102	60-135	
Ethane	1870	170	2000	98	65-126	
Methane	994	6300	7630	135	48-159	4

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0411008.D

Lab ID: 240-77545-D-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Ethene	1750	2470	101	1	10	60-135	
Ethane	1870	1940	94	3	11	65-126	
Methane	994	8210	193	7	23	48-159	4

Column to be used to flag recovery and RPD values

FORM III RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: ZPID Start Date: 10/15/2016 14:57

Analysis Batch Number: 251578 End Date: 10/15/2016 16:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-251578/3 IC		10/15/2016 14:57	1	RSK0101503.D	HP-PLOT/Q 0.53(mm)
STD2 240-251578/4 IC		10/15/2016 15:14	1	RSK0101504.D	HP-PLOT/Q 0.53(mm)
STD3 240-251578/5 ICRT		10/15/2016 15:31	1	RSK0101505.D	HP-PLOT/Q 0.53(mm)
STD4 240-251578/6 IC		10/15/2016 15:48	1	RSK0101506.D	HP-PLOT/Q 0.53(mm)
STD5 240-251578/7 IC		10/15/2016 16:05	1	RSK0101507.D	HP-PLOT/Q 0.53(mm)
STD6 240-251578/8 IC		10/15/2016 16:22	1	RSK0101508.D	HP-PLOT/Q 0.53(mm)
ICV 240-251578/9		10/15/2016 16:39	1	RSK0101509.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: ZPID Start Date: 04/11/2017 12:02

Analysis Batch Number: 274140 End Date: 04/11/2017 18:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-274140/3		04/11/2017 12:02	1	RSK0411003.D	HP-PLOT/Q 0.53(mm)
MB 240-274140/4		04/11/2017 12:20	1	RSK0411004.D	HP-PLOT/Q 0.53(mm)
LCS 240-274140/5		04/11/2017 12:37	1	RSK0411005.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 12:54	5		HP-PLOT/Q 0.53(mm)
240-77545-D-2 MS		04/11/2017 13:11	5	RSK0411007.D	HP-PLOT/Q 0.53(mm)
240-77545-D-2 MSD		04/11/2017 13:28	5	RSK0411008.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 13:45	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 14:03	2		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 14:20	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 14:37	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 14:54	2		HP-PLOT/Q 0.53(mm)
CCV 240-274140/14		04/11/2017 15:11	1	RSK0411014.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 15:28	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 15:46	10		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 16:03	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 16:20	2		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 16:37	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 16:54	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 17:12	10		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/11/2017 17:29	1		HP-PLOT/Q 0.53(mm)
240-77416-1		04/11/2017 17:46	1	RSK0411023.D	HP-PLOT/Q 0.53(mm)
240-77416-2		04/11/2017 18:03	1	RSK0411024.D	HP-PLOT/Q 0.53(mm)
CCV 240-274140/25		04/11/2017 18:20	1	RSK0411025.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: ZPID Start Date: 04/12/2017 13:22

Analysis Batch Number: 274378 End Date: 04/12/2017 16:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-274378/3		04/12/2017 13:22	1	RSK0412003.D	HP-PLOT/Q 0.53(mm)
MB 240-274378/4		04/12/2017 13:39	1	RSK0412004.D	HP-PLOT/Q 0.53(mm)
LCS 240-274378/5		04/12/2017 13:56	1	RSK0412005.D	HP-PLOT/Q 0.53(mm)
240-77601-2		04/12/2017 14:31	1	RSK0412007.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/12/2017 14:48	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/12/2017 15:05	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/12/2017 15:22	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/12/2017 15:39	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/12/2017 15:56	1		HP-PLOT/Q 0.53(mm)
CCV 240-274378/14		04/12/2017 16:31	1	RSK0412014.D	HP-PLOT/Q 0.53(mm)

Method 680

Polychlorinated Biphenyls (PCBs) (GC/MS) by Method 680

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-77416-1

SDG No.:

Lab File ID: xd1402.D DFTPP Injection Date: 04/14/2017

Instrument ID: CMSX DFTPP Injection Time: 08:39

Analysis Batch No.: 476005

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	55.0
197	Less than 1 % of mass 198	0.7
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.4
275	10 - 30% of mass 198	28.2
365	Greater than 1% of mass 198	5.1
441	Present but less than mass 443	6.4 (39.4) 2
442	Greater than 40% of mass 198	87.3
443	17 - 23% of mass 442	16.1 (18.5) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-476005/2	xd1403.D	04/14/2017	09:10
	IC 680-476005/4	xd1405.D	04/14/2017	10:10
	IC 680-476005/5	xd1406.D	04/14/2017	10:39
	IC 680-476005/6	xd1407.D	04/14/2017	11:08
	IC 680-476005/7	xd1408.D	04/14/2017	11:36
	ICISAV 680-476005/23	xd1409.D	04/14/2017	12:05
	ICV 680-476005/8	xd1410.D	04/14/2017	12:34
	MB 680-475231/9-A	xd1412.D	04/14/2017	13:32
	LCS 680-475231/10-A	xd1413.D	04/14/2017	14:01
	240-77337-G-1-A MS	xd1414.D	04/14/2017	14:29
	240-77337-G-1-B MSD	xd1415.D	04/14/2017	14:58
MRC-MW37A-032917	240-77416-1	xd1420.D	04/14/2017	17:22
MRC-MW37B-032917	240-77416-2	xd1421.D	04/14/2017	17:51
MRC-MW114A-032917	240-77416-3	xd1422.D	04/14/2017	18:20
MRC-MW113A-032917	240-77416-4	xd1423.D	04/14/2017	18:49
	CCV 680-476005/22	xd1424.D	04/14/2017	19:17

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-77416-1 Analy Batch No.: 476005

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/14/2017 10:10 Calibration End Date: 04/14/2017 12:05 Calibration ID: 51808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-476005/7	xd1408.D
Level 2	IC 680-476005/6	xd1407.D
Level 3	ICISAV 680-476005/23	xd1409.D
Level 4	IC 680-476005/5	xd1406.D
Level 5	IC 680-476005/4	xd1405.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.7495	0.6443	0.6598	0.7450	0.7100	Ave		0.7017				6.9		20.0			
Dichlorobiphenyl	0.5516	0.4767	0.4878	0.5531	0.5443	Ave		0.5227				7.1		20.0			
Trichlorobiphenyl	0.3741	0.3519	0.3529	0.3890	0.3888	Ave		0.3713				4.9		20.0			
PCB-104			0.3265			Ave		0.3265						30.0			
Tetrachlorobiphenyl	0.2803	0.2586	0.2561	0.2834	0.2806	Ave		0.2718				4.9		20.0			
Pentachlorobiphenyl	0.2420	0.2193	0.2239	0.2414	0.2474	Ave		0.2348				5.3		20.0			
PCB-77			0.4094			Ave		0.4094						30.0			
Hexachlorobiphenyl	0.2535	0.2260	0.2333	0.2405	0.2456	Ave		0.2397				4.4		20.0			
Heptachlorobiphenyl	0.2188	0.1999	0.2010	0.2198	0.2170	Ave		0.2113				4.7		20.0			
Octachlorobiphenyl	0.2004	0.1857	0.1874	0.1948	0.2065	Ave		0.1950				4.5		20.0			
PCB-208			0.0788			Ave		0.0788						30.0			
Nonachlorobiphenyl			0.0630			Ave		0.0419				3.0		20.0			
DCB Decachlorobiphenyl	0.0427	0.0423	0.0434	0.0402	0.0411	Ave		0.0419				3.0		20.0			
gamma-BHC-13C6 (Surr)	0.1567	0.1496	0.1501	0.1704	0.1227	Ave		0.1499				11.6		50.0			
Decachlorobiphenyl-13C12	0.0504	0.0541	0.0567	0.0535	0.0544	Ave		0.0538				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICV 680-476005/8 Calibration Date: 04/14/2017 12:34

Instrument ID: CMSX Calib Start Date: 04/14/2017 10:10

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 04/14/2017 12:05

Lab File ID: xd1410.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7017	0.6294		0.897	1.00	-10.3	20.0
Dichlorobiphenyl	Ave	0.5227	0.4524		0.866	1.00	-13.4	20.0
Trichlorobiphenyl	Ave	0.3713	0.3752		1.01	1.00	1.0	20.0
Tetrachlorobiphenyl	Ave	0.2718	0.2626		1.93	2.00	-3.4	20.0
Pentachlorobiphenyl	Ave	0.2348	0.2231		1.90	2.00	-5.0	20.0
Hexachlorobiphenyl	Ave	0.2397	0.2234		1.86	2.00	-6.8	20.0
Heptachlorobiphenyl	Ave	0.2113	0.2055		2.92	3.00	-2.8	20.0
Octachlorobiphenyl	Ave	0.1950	0.1918		2.95	3.00	-1.6	20.0
Nonachlorobiphenyl	Ave	0.0630	0.0767		7.32	4.00	21.8*	20.0
DCB Decachlorobiphenyl	Ave	0.0419	0.0426		5.07	5.00	1.5	20.0
Decachlorobiphenyl-13C12	Ave	0.0538	0.0552		5.12	5.00	2.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-77416-1

SDG No.:

Lab Sample ID: CCV 680-476005/22 Calibration Date: 04/14/2017 19:17

Instrument ID: CMSX Calib Start Date: 04/14/2017 10:10

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 04/14/2017 12:05

Lab File ID: xd1424.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7017	0.6513		0.928	1.00	-7.2	20.0
Dichlorobiphenyl	Ave	0.5227	0.4771		0.913	1.00	-8.7	20.0
Trichlorobiphenyl	Ave	0.3713	0.3494		0.941	1.00	-5.9	20.0
Tetrachlorobiphenyl	Ave	0.2718	0.2482		1.83	2.00	-8.7	20.0
Pentachlorobiphenyl	Ave	0.2348	0.2230		1.90	2.00	-5.0	20.0
Hexachlorobiphenyl	Ave	0.2397	0.2233		1.86	2.00	-6.9	20.0
Heptachlorobiphenyl	Ave	0.2113	0.1990		2.83	3.00	-5.8	20.0
Octachlorobiphenyl	Ave	0.1950	0.1823		2.81	3.00	-6.5	20.0
Nonachlorobiphenyl	Ave	0.0630	0.0741		7.07	4.00	17.7	20.0
DCB Decachlorobiphenyl	Ave	0.0419	0.0393		4.69	5.00	-6.3	20.0
gamma-BHC-13C6 (Surr)	Ave	0.1499	0.1460		1.95	2.00	-2.6	50.0
Decachlorobiphenyl-13C12	Ave	0.0538	0.0536		4.98	5.00	-0.5	20.0

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77416-1

SDG No.:

Lab File ID: xd1412.D Lab Sample ID: MB 680-475231/9-A

Matrix: Water Date Extracted: 04/07/2017 14:58

Instrument ID: CMSX Date Analyzed: 04/14/2017 13:32

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-475231/10-A	xd1413.D	04/14/2017 14:01
	240-77337-G-1-A MS	xd1414.D	04/14/2017 14:29
	240-77337-G-1-B MSD	xd1415.D	04/14/2017 14:58
MRC-MW37A-032917	240-77416-1	xd1420.D	04/14/2017 17:22
MRC-MW37B-032917	240-77416-2	xd1421.D	04/14/2017 17:51
MRC-MW114A-032917	240-77416-3	xd1422.D	04/14/2017 18:20
MRC-MW113A-032917	240-77416-4	xd1423.D	04/14/2017 18:49

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77416-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-475231/9-A

Matrix: Water | Lab File ID: xd1412.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 04/07/2017 14:58

Sample wt/vol: 1000(mL) | Date Analyzed: 04/14/2017 13:32

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 476005 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.0054	U	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0065	U	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	84		25-113

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	13CDCB #	
MRC-MW37A-032917	240-77416-1	77	
MRC-MW37B-032917	240-77416-2	92	
MRC-MW114A-032917	240-77416-3	76	
MRC-MW113A-032917	240-77416-4	87	
	MB 680-475231/9-A	84	
	LCS 680-475231/10-A	95	
	240-77337-G-1-A MS	154	X
	240-77337-G-1-B MSD	164	X

	QC LIMITS
13CDCB = Decachlorobiphenyl-13C12	25-113

Column to be used to flag recovery values

FORM II 680

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xd1413.D

Lab ID: LCS 680-475231/10-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	5.47	91	62-130	
Hexachlorobiphenyl	4.00	3.49	87	62-130	
Nonachlorobiphenyl	10.0	17.5	175	70-195	
Octachlorobiphenyl	6.00	5.50	92	64-130	
Monochlorobiphenyl	2.00	1.58	79	42-130	
DCB Decachlorobiphenyl	10.0	9.37	94	59-130	
Dichlorobiphenyl	2.00	1.63	81	49-130	
Pentachlorobiphenyl	4.00	3.54	88	63-130	
Tetrachlorobiphenyl	4.00	3.36	84	54-130	
Trichlorobiphenyl	2.00	1.70	85	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xd1414.D

Lab ID: 240-77337-G-1-A MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	0.060 U	8.54	142	62-130	F1
Hexachlorobiphenyl	4.00	0.030 U	5.56	139	62-130	F1
Nonachlorobiphenyl	10.0	0.098 U	27.6	276	70-195	F1
Octachlorobiphenyl	6.00	0.076 U	8.91	149	64-130	F1
Monochlorobiphenyl	2.00	0.011 U	2.42	121	42-130	
DCB Decachlorobiphenyl	10.0	0.14 U	15.1	151	59-130	F1
Dichlorobiphenyl	2.00	0.011 U	2.60	130	49-130	
Pentachlorobiphenyl	4.00	0.028 U	5.66	141	63-130	F1
Tetrachlorobiphenyl	4.00	0.026 U	5.65	141	54-130	F1
Trichlorobiphenyl	2.00	0.013 U	2.72	136	51-130	F1

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77416-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xd1415.D

Lab ID: 240-77337-G-1-B MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Heptachlorobiphenyl	5.71	8.70	153	2	40	62-130	F1
Hexachlorobiphenyl	3.80	5.56	146	0	40	62-130	F1
Nonachlorobiphenyl	9.51	27.9	293	1	40	70-195	F1
Octachlorobiphenyl	5.71	9.18	161	3	40	64-130	F1
Monochlorobiphenyl	1.90	2.44	128	1	40	42-130	
DCB Decachlorobiphenyl	9.51	15.1	158	0	40	59-130	F1
Dichlorobiphenyl	1.90	2.59	136	1	40	49-130	F1
Pentachlorobiphenyl	3.80	5.72	150	1	40	63-130	F1
Tetrachlorobiphenyl	3.80	5.36	141	5	40	54-130	F1
Trichlorobiphenyl	1.90	2.70	142	1	40	51-130	F1

Column to be used to flag recovery and RPD values

FORM III 680

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-77416-1

SDG No.:

Instrument ID: CMSX Start Date: 04/14/2017 08:39

Analysis Batch Number: 476005 End Date: 04/14/2017 19:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 680-476005/1		04/14/2017 08:39	1	xd1402.D	HP-5MS 0.25(mm)
WDM 680-476005/2		04/14/2017 09:10	1	xd1403.D	HP-5MS 0.25(mm)
IC 680-476005/4		04/14/2017 10:10	1	xd1405.D	HP-5MS 0.25(mm)
IC 680-476005/5		04/14/2017 10:39	1	xd1406.D	HP-5MS 0.25(mm)
IC 680-476005/6		04/14/2017 11:08	1	xd1407.D	HP-5MS 0.25(mm)
IC 680-476005/7		04/14/2017 11:36	1	xd1408.D	HP-5MS 0.25(mm)
ICISAV 680-476005/23		04/14/2017 12:05	1	xd1409.D	HP-5MS 0.25(mm)
ICV 680-476005/8		04/14/2017 12:34	1	xd1410.D	HP-5MS 0.25(mm)
MB 680-475231/9-A		04/14/2017 13:32	1	xd1412.D	HP-5MS 0.25(mm)
LCS 680-475231/10-A		04/14/2017 14:01	1	xd1413.D	HP-5MS 0.25(mm)
240-77337-G-1-A MS		04/14/2017 14:29	1	xd1414.D	HP-5MS 0.25(mm)
240-77337-G-1-B MSD		04/14/2017 14:58	1	xd1415.D	HP-5MS 0.25(mm)
ZZZZZ		04/14/2017 15:27	1		HP-5MS 0.25(mm)
ZZZZZ		04/14/2017 15:56	1		HP-5MS 0.25(mm)
ZZZZZ		04/14/2017 16:25	1		HP-5MS 0.25(mm)
ZZZZZ		04/14/2017 16:53	1		HP-5MS 0.25(mm)
240-77416-1		04/14/2017 17:22	1	xd1420.D	HP-5MS 0.25(mm)
240-77416-2		04/14/2017 17:51	1	xd1421.D	HP-5MS 0.25(mm)
240-77416-3		04/14/2017 18:20	1	xd1422.D	HP-5MS 0.25(mm)
240-77416-4		04/14/2017 18:49	1	xd1423.D	HP-5MS 0.25(mm)
CCV 680-476005/22		04/14/2017 19:17	1	xd1424.D	HP-5MS 0.25(mm)

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-77416-1

SDG No.:

Batch Number: 475231 Batch Start Date: 04/07/17 14:58 Batch Analyst: Wilson, Charles E

Batch Method: 680 Batch End Date: 04/08/17 09:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH
240-77416-Q-1	MRC-MW37A-032917	680, 680	T	7 SU	1507.5 g	502.7 g	1004.8 mL	1 mL	7 SU
240-77416-Q-2	MRC-MW37B-032917	680, 680	T	7 SU	1483.3 g	493.2 g	990.1 mL	1 mL	7 SU
240-77416-F-3	MRC-MW114A-032917	680, 680	T	7 SU	1545.2 g	503.2 g	1042 mL	1 mL	7 SU
240-77416-G-4	MRC-MW113A-032917	680, 680	T	7 SU	1466.3 g	503.9 g	962.4 mL	1 mL	7 SU
MB 680-475231/9		680, 680		7 SU			1000 mL	1 mL	7 SU
LCS 680-475231/10		680, 680		7 SU			1000 mL	1 mL	7 SU
240-77337-G-1 MS		680, 680	T	7 SU			500.1 mL	1 mL	7 SU
240-77337-G-1 MSD		680, 680	T	7 SU	1019.2 g	493.5 g	525.7 mL	1 mL	7 SU

Lab Sample ID	Client Sample ID	Method Chain	Basis	ResidualChloCheck	680wkSPIKE 00108	680wkSURR-NEW 00017			
240-77416-Q-1	MRC-MW37A-032917	680, 680	T	N		1 mL			
240-77416-Q-2	MRC-MW37B-032917	680, 680	T	N		1 mL			
240-77416-F-3	MRC-MW114A-032917	680, 680	T	N		1 mL			
240-77416-G-4	MRC-MW113A-032917	680, 680	T	N		1 mL			
MB 680-475231/9		680, 680		N		1 mL			
LCS 680-475231/10		680, 680		N	1 mL	1 mL			
240-77337-G-1 MS		680, 680	T	N	0.5 mL	0.5 mL			
240-77337-G-1 MSD		680, 680	T	N	0.5 mL	0.5 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-77416-1

SDG No.:

Batch Number: 475231 Batch Start Date: 04/07/17 14:58 Batch Analyst: Wilson, Charles E

Batch Method: 680 Batch End Date: 04/08/17 09:00

Batch Notes	
Balance ID	23
Batch Comment	680 box M680-101
Concentration End Time	1148
Concentration Start Time	1056
Analyst ID - Concentration	RKL
Exchange Solvent ID	5004301
Exchange Solvent Name	Hexanes
Exchange Solvent Volume Used	1 mL
Extraction 1 End Time	0900
Extraction 1 Start Time	1458
pH Paper ID	4785212 4961266 4923424
Pipette ID	AA02G
Prep Solvent ID	5016045
Prep Solvent Name	MeCL2
Prep Solvent Volume Used	70 mL
Person's name who did the prep	CEW
Analyst ID - Reagent Drop Witness	CEW/JC
Residual Chlorine Indicator ID	4852916
Analyst ID - Spike Analyst	CEW
Analyst ID - Spike Witness Analyst	JC
Sufficient volume for MS/MSD?	Yes
Vial ID	84873

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00094

Analyte	ICV 240-273205/4 04/03/2017 10:10				CCV 240-273205/18 04/03/2017 11:11				CCV 240-273205/30 04/03/2017 12:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24600		25000	98	50000		50000	100	49700		50000	99
Iron	12900		12500	103	25300		25000	101	25200		25000	101
Magnesium	25800		25000	103	50100		50000	100	49800		50000	100
Manganese	1520		1500	101	1990		2000	100	1980		2000	99
Potassium	24900		25000	100	49200		50000	98	49200		50000	98
SiO2, Silica	6480		6420	101	10800		10700	101	10800		10700	101
Sodium	25200		25000	101	49900		50000	100	49800		50000	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTTRCRIC_00045 Concentration Units: ug/L

CCV Source: MTTRCRIC_00045

Analyte	ICVL 240-273205/6 04/03/2017 10:19				CCVL 240-273205/32 04/03/2017 12:19							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5020		5000	100	4880	J	5000	98				
Iron	211		200	105	205		200	102				
Magnesium	5140		5000	103	5040		5000	101				
Manganese	15.7		15.0	104	15.2		15.0	101				
Potassium	4940	J	5000	99	4810	J	5000	96				
SiO2, Silica	1070	J	1070	100	1060	J	1070	99				
Sodium	4930	J	5000	99	4870	J	5000	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00094

Analyte	ICV 240-273782/4 04/06/2017 12:18				CCV 240-273782/30 04/06/2017 14:21				CCV 240-273782/42 04/06/2017 15:12			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24200		25000	97	50700		50000	101	50500		50000	101
Iron	12600		12500	101	25300		25000	101	25700		25000	103
Magnesium	25300		25000	101	50000		50000	100	50700		50000	101
Manganese	1520		1500	101	2020		2000	101	2000		2000	100
Potassium	24700		25000	99	49600		50000	99	50300		50000	101
SiO2, Silica	6460		6420	101	11100		10700	103	11100		10700	104
Sodium	24900		25000	99	49400		50000	99	50000		50000	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00094

Analyte	CCV 240-273782/51 04/06/2017 15:51											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	50000		50000	100								
Iron	25100		25000	100								
Magnesium	49300		50000	99								
Manganese	1990		2000	99								
Potassium	48900		50000	98								
SiO2, Silica	10900		10700	102								
Sodium	48900		50000	98								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTTRCRIC_00046 Concentration Units: ug/L

CCV Source: MTTRCRIC_00046

Analyte	ICVL 240-273782/6 04/06/2017 12:26				CCVL 240-273782/86 04/06/2017 18:22							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	4970	J	5000	99	5280		5000	106				
Iron	204		200	102	219		200	109				
Magnesium	5070		5000	101	5450		5000	109				
Manganese	15.4		15.0	103	16.4		15.0	109				
Potassium	4840	J	5000	97	5000		5000	100				
SiO2, Silica	1080	J	1070	101	1130		1070	105				
Sodium	4900	J	5000	98	5460		5000	109				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00189

Analyte	ICV 240-273335/7 04/04/2017 12:45				CCV 240-273335/52 04/04/2017 15:56							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.6		40.0	101	52.0		50.0	104				
Arsenic	41.6		40.0	104	51.6		50.0	103				
Barium	40.6		40.0	101	52.2		50.0	104				
Beryllium	40.8		40.0	102	50.4		50.0	101				
Cadmium	41.1		40.0	103	51.7		50.0	103				
Chromium	41.0		40.0	102	49.0		50.0	98				
Cobalt	40.7		40.0	102	49.3		50.0	99				
Copper	42.2		40.0	106	50.1		50.0	100				
Iron	10100		10000	101	12200		12500	97				
Lead	40.6		40.0	101	50.0		50.0	100				
Manganese	205		200	103	246		250	98				
Molybdenum	40.2		40.0	100	49.7		50.0	99				
Nickel	41.8		40.0	105	50.2		50.0	100				
Selenium	41.9		40.0	105	52.4		50.0	105				
Silver	40.4		40.0	101	50.5		50.0	101				
Thallium	41.0		40.0	102	50.1		50.0	100				
Vanadium	41.6		40.0	104	49.4		50.0	99				
Zinc	43.2		40.0	108	52.0		50.0	104				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00190

Analyte	ICV 240-273335/7 04/04/2017 12:45				CCV 240-273335/40 04/04/2017 15:07				CCV 240-273335/58 04/04/2017 16:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.6		40.0	101	52.7		50.0	105	51.3		50.0	103
Arsenic	41.6		40.0	104	51.2		50.0	102	50.3		50.0	101
Barium	40.6		40.0	101	51.0		50.0	102	51.5		50.0	103
Beryllium	40.8		40.0	102	50.2		50.0	100	50.4		50.0	101
Cadmium	41.1		40.0	103	51.5		50.0	103	51.1		50.0	102
Chromium	41.0		40.0	102	49.0		50.0	98	49.8		50.0	100
Cobalt	40.7		40.0	102	49.5		50.0	99	50.1		50.0	100
Copper	42.2		40.0	106	50.0		50.0	100	51.0		50.0	102
Iron	10100		10000	101	12200		12500	97	12400		12500	99
Lead	40.6		40.0	101	50.4		50.0	101	50.4		50.0	101
Manganese	205		200	103	244		250	98	248		250	99
Molybdenum	40.2		40.0	100	50.4		50.0	101	50.7		50.0	101
Nickel	41.8		40.0	105	50.2		50.0	100	51.5		50.0	103
Selenium	41.9		40.0	105	52.2		50.0	104	51.0		50.0	102
Silver	40.4		40.0	101	50.5		50.0	101	50.6		50.0	101
Thallium	41.0		40.0	102	51.2		50.0	102	52.1		50.0	104
Vanadium	41.6		40.0	104	49.4		50.0	99	50.0		50.0	100
Zinc	43.2		40.0	108	54.5		50.0	109	52.9		50.0	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00190

Analyte	CCV 240-273335/79 04/04/2017 17:50				CCV 240-273335/89 04/04/2017 18:31							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	51.6		50.0	103	52.1		50.0	104				
Arsenic	51.5		50.0	103	51.1		50.0	102				
Barium	51.6		50.0	103	52.2		50.0	104				
Beryllium	51.1		50.0	102	50.3		50.0	101				
Cadmium	50.2		50.0	100	51.2		50.0	102				
Chromium	48.4		50.0	97	49.3		50.0	99				
Cobalt	48.1		50.0	96	49.3		50.0	99				
Copper	48.6		50.0	97	49.9		50.0	100				
Iron	12000		12500	96	12400		12500	99				
Lead	49.4		50.0	99	50.1		50.0	100				
Manganese	241		250	97	246		250	98				
Molybdenum	50.8		50.0	102	51.3		50.0	103				
Nickel	48.9		50.0	98	49.8		50.0	100				
Selenium	51.3		50.0	103	51.7		50.0	103				
Silver	50.2		50.0	100	50.6		50.0	101				
Thallium	50.1		50.0	100	51.3		50.0	103				
Vanadium	48.6		50.0	97	49.5		50.0	99				
Zinc	50.8		50.0	102	52.3		50.0	105				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-273335/9 04/04/2017 12:53				CCVL 240-273335/60 04/04/2017 16:30				CCVL 240-273335/91 04/04/2017 18:40			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.27		2.00	113	2.49		2.00	125	2.14		2.00	107
Arsenic	5.22		5.00	104	5.23		5.00	105	4.95	J	5.00	99
Barium	5.06		5.00	101	5.20		5.00	104	5.09		5.00	102
Beryllium	0.953	J	1.00	95	0.976	J	1.00	98	0.937	J	1.00	94
Cadmium	1.05		1.00	105	1.12		1.00	112	1.09		1.00	109
Chromium	2.07		2.00	103	2.08		2.00	104	2.02		2.00	101
Cobalt	1.08		1.00	108	1.11		1.00	111	1.06		1.00	106
Copper	2.32		2.00	116	2.29		2.00	115	2.22		2.00	111
Iron	121		100	121	124		100	124	117		100	117
Lead	1.08		1.00	108	1.17		1.00	117	1.17		1.00	117
Manganese	5.31		5.00	106	5.49		5.00	110	5.27		5.00	105
Molybdenum	5.18	J	5.00	104	5.21	J	5.00	104	5.11	J	5.00	102
Nickel	2.27		2.00	114	2.23		2.00	111	2.23		2.00	111
Selenium	5.61		5.00	112	5.67		5.00	113	5.34		5.00	107
Silver	1.00		1.00	100	1.02		1.00	102	1.01		1.00	101
Thallium	1.05		1.00	105	1.07		1.00	107	1.04		1.00	104
Vanadium	5.41		5.00	108	5.18		5.00	104	5.03		5.00	101
Zinc	24.0		20.0	120	24.2		20.0	121	23.2		20.0	116

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00190

Analyte	ICV 240-273538/7 04/05/2017 11:31				CCV 240-273538/21 04/05/2017 12:34				CCV 240-273538/32 04/05/2017 13:20			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.7		40.0	102	50.7		50.0	101	53.0		50.0	106
Zinc	38.7		40.0	97	49.5		50.0	99	51.6		50.0	103
Arsenic	40.9		40.0	102	50.6		50.0	101	49.7		50.0	99
Barium	39.7		40.0	99	50.6		50.0	101	50.2		50.0	100
Beryllium	40.2		40.0	100	50.9		50.0	102	50.2		50.0	100
Cadmium	40.6		40.0	102	50.9		50.0	102	51.7		50.0	103
Chromium	40.3		40.0	101	49.8		50.0	100	51.2		50.0	102
Cobalt	40.6		40.0	101	50.7		50.0	101	52.0		50.0	104
Copper	41.4		40.0	103	50.7		50.0	101	52.3		50.0	105
Iron	10100		10000	101	12500		12500	100	12800		12500	103
Lead	40.7		40.0	102	51.0		50.0	102	52.0		50.0	104
Manganese	205		200	103	255		250	102	257		250	103
Molybdenum	40.3		40.0	101	50.7		50.0	101	51.3		50.0	103
Nickel	41.3		40.0	103	50.5		50.0	101	52.0		50.0	104
Selenium	42.2		40.0	106	51.1		50.0	102	51.4		50.0	103
Silver	40.1		40.0	100	51.1		50.0	102	50.8		50.0	102
Thallium	40.4		40.0	101	50.7		50.0	101	52.4		50.0	105
Vanadium	41.3		40.0	103	49.7		50.0	99	50.2		50.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00190

Analyte	CCV 240-273538/39 04/05/2017 13:50											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	51.0		50.0	102								
Zinc	52.0		50.0	104								
Arsenic	49.2		50.0	98								
Barium	50.1		50.0	100								
Beryllium	50.9		50.0	102								
Cadmium	49.6		50.0	99								
Chromium	49.1		50.0	98								
Cobalt	49.7		50.0	99								
Copper	50.4		50.0	101								
Iron	12600		12500	100								
Lead	50.2		50.0	100								
Manganese	253		250	101								
Molybdenum	49.3		50.0	99								
Nickel	49.5		50.0	99								
Selenium	51.0		50.0	102								
Silver	49.0		50.0	98								
Thallium	52.2		50.0	104								
Vanadium	49.1		50.0	98								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-273538/9 04/05/2017 11:39				CCVL 240-273538/41 04/05/2017 13:58							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.16		2.00	108	2.11		2.00	106				
Zinc	18.2	J	20.0	91	19.6	J	20.0	98				
Arsenic	5.16		5.00	103	4.93	J	5.00	99				
Barium	4.99	J	5.00	100	4.91	J	5.00	98				
Beryllium	0.950	J	1.00	95	0.942	J	1.00	94				
Cadmium	1.05		1.00	105	1.07		1.00	107				
Chromium	2.02		2.00	101	2.05		2.00	103				
Cobalt	1.07		1.00	107	1.07		1.00	107				
Copper	2.15		2.00	107	2.20		2.00	110				
Iron	121		100	121	124		100	124				
Lead	1.06		1.00	106	1.10		1.00	110				
Manganese	4.50	J	5.00	90	4.86	J	5.00	97				
Molybdenum	5.21	J	5.00	104	5.24	J	5.00	105				
Nickel	1.89	J	2.00	95	1.92	J	2.00	96				
Selenium	5.56		5.00	111	5.39		5.00	108				
Silver	1.00		1.00	100	1.01		1.00	101				
Thallium	1.07		1.00	107	1.04		1.00	104				
Vanadium	5.25		5.00	105	5.08		5.00	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTHgICV_00001_00155 Concentration Units: ug/L

CCV Source: MTHGCALW_01468

Analyte	ICV 240-273083/7-A 04/03/2017 13:14				CCV 240-273083/10-A 04/03/2017 14:26				CCV 240-273083/10-A 04/03/2017 14:50			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.97		5.00	99	5.27		5.00	105	5.16		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTHgICV_00001_00155 Concentration Units: ug/L

CCV Source: MTHGCALW_01468

Analyte	ICV 240-273083/7-A 04/04/2017 08:48				CCV 240-273083/10-A 04/04/2017 09:17				CCV 240-273083/10-A 04/04/2017 09:41			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.03		5.00	101	5.02		5.00	100	5.05		5.00	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICV Source: MTHgICV_00001_00155 Concentration Units: ug/L

CCV Source: MTHGCALW_01468

Analyte	CCV 240-273083/10-A 04/04/2017 10:04											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.20		5.00	104								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Method: 7470A Instrument ID: H2

Lab Sample ID: CRA 240-273083/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01468

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.215		108	50-150

Lab Sample ID: CRA 240-273083/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01468

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.208		104	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-273205/5 04/03/2017 10:14		CCB 240-273205/19 04/03/2017 11:15		CCB 240-273205/31 04/03/2017 12:15			
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U		
Iron	100	25	U	25	U	25	U		
Magnesium	5000	230	U	230	U	230	U		
Manganese	15	5.1	U	5.1	U	5.1	U		
Potassium	5000	70	U	70	U	80.9	J		
SiO2, Silica	1100	140	U	140	U	140	U		
Sodium	5000	330	U	330	U	330	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-273782/5 04/06/2017 12:22		CCB 240-273782/31 04/06/2017 14:26		CCB 240-273782/43 04/06/2017 15:16		CCB 240-273782/52 04/06/2017 15:55	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Iron	100	25	U	25	U	25	U	25	U
Magnesium	5000	230	U	230	U	230	U	230	U
Manganese	15	5.1	U	5.1	U	5.1	U	5.1	U
Potassium	5000	70	U	88.2	J	70	U	70	U
SiO2, Silica	1100	140	U	140	U	140	U	140	U
Sodium	5000	330	U	330	U	330	U	330	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-273335/8 04/04/2017 12:49		CCB 240-273335/41 04/04/2017 15:11		CCB 240-273335/53 04/04/2017 16:01		CCB 240-273335/59 04/04/2017 16:26	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	1.12	J	1.97	J	1.10	J	0.910	J
Arsenic	5.0	0.49	U	0.49	U	0.49	U	0.49	U
Barium	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Beryllium	1.0	0.053	U	0.053	U	0.0990	J	0.053	U
Cadmium	1.0	0.061	U	0.352	J	0.061	U	0.061	U
Chromium	2.0	0.60	U	0.60	U	0.60	U	0.60	U
Cobalt	1.0	0.021	U	0.342	J	0.0370	J	0.0350	J
Copper	2.0	0.75	U	0.75	U	0.75	U	0.75	U
Iron	100	16.8	J	43.9	J	20.3	J	23.1	J
Lead	1.0	0.11	U	0.523	J	0.134	J	0.115	J
Manganese	5.0	1.1	U	1.23	J	1.1	U	1.1	U
Molybdenum	10	0.678	J	1.09	J	0.751	J	0.732	J
Nickel	2.0	0.23	U	1.83	J	1.52	J	1.54	J
Selenium	5.0	0.25	U	0.419	J	0.25	U	0.25	U
Silver	1.0	0.020	U	0.153	J	0.0250	J	0.0260	J
Thallium	1.0	0.074	U	0.352	J	0.074	U	0.074	U
Vanadium	5.0	0.23	U	0.355	J	0.23	U	0.23	U
Zinc	20	7.3	U	13.9	J	12.4	J	12.7	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-273335/80 04/04/2017 17:54		CCB 240-273335/90 04/04/2017 18:35					
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.655	J	0.902	J				
Arsenic	5.0	0.49	U	0.49	U				
Barium	5.0	1.1	U	1.1	U				
Beryllium	1.0	0.053	U	0.104	J				
Cadmium	1.0	0.061	U	0.126	J				
Chromium	2.0	0.60	U	0.60	U				
Cobalt	1.0	0.0330	J	0.117	J				
Copper	2.0	0.75	U	0.75	U				
Iron	100	19.2	J	22.9	J				
Lead	1.0	0.11	U	0.234	J				
Manganese	5.0	1.1	U	1.15	J				
Molybdenum	10	0.748	J	0.738	J				
Nickel	2.0	1.42	J	1.52	J				
Selenium	5.0	0.25	U	0.25	U				
Silver	1.0	0.0200	J	0.0360	J				
Thallium	1.0	0.074	U	0.112	J				
Vanadium	5.0	0.23	U	0.23	U				
Zinc	20	11.2	J	11.6	J				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-273538/8 04/05/2017 11:35		CCB 240-273538/22 04/05/2017 12:38		CCB 240-273538/33 04/05/2017 13:25		CCB 240-273538/40 04/05/2017 13:54	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	1.24	J	0.745	J	1.34	J	0.675	J
Zinc	20	7.3	U	7.3	U	17.0	J	18.0	J
Arsenic	5.0	0.49	U	0.49	U	0.49	U	0.49	U
Barium	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Beryllium	1.0	0.053	U	0.053	U	0.0750	J	0.053	U
Cadmium	1.0	0.061	U	0.061	U	0.0640	J	0.061	U
Chromium	2.0	0.60	U	0.60	U	0.60	U	0.60	U
Cobalt	1.0	0.021	U	0.021	U	0.0590	J	0.0340	J
Copper	2.0	0.75	U	0.75	U	0.75	U	0.75	U
Iron	100	16	U	20.3	J	21.3	J	21.2	J
Lead	1.0	0.11	U	0.11	U	0.125	J	0.11	U
Manganese	5.0	1.1	U	1.1	U	2.88	J	2.95	J
Molybdenum	10	0.683	J	0.866	J	0.849	J	0.761	J
Nickel	2.0	0.23	U	0.23	U	0.323	J	0.23	U
Selenium	5.0	0.25	U	0.25	U	0.347	J	0.25	U
Silver	1.0	0.020	U	0.020	U	0.0240	J	0.020	U
Thallium	1.0	0.074	U	0.074	U	0.0850	J	0.074	U
Vanadium	5.0	0.23	U	0.23	U	0.23	U	0.23	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-273083/8-A 04/03/2017 13:16		CCB 240-273083/11-A 04/03/2017 14:28		CCB 240-273083/11-A 04/03/2017 14:52			
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-273083/8-A 04/04/2017 08:50		CCB 240-273083/11-A 04/04/2017 09:19		CCB 240-273083/11-A 04/04/2017 09:43		CCB 240-273083/11-A 04/04/2017 10:06	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-272772/1-A

Instrument Code: I9 Batch No.: 273205

CAS No.	Analyte	Concentration	C	Q	Method
7440-23-5	Sodium	330	U		6010C
7440-09-7	Potassium	75.2	J		6010C
14808-60-7	SiO2, Silica	140	U		6010C
7440-70-2	Calcium	710	U		6010C
7439-89-6	Iron	25	U		6010C
7439-95-4	Magnesium	230	U		6010C
7439-96-5	Manganese	5.1	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-273377/1-A

Instrument Code: I9 Batch No.: 273782

CAS No.	Analyte	Concentration	C	Q	Method
7440-23-5	Sodium	330	U		6010C
7440-09-7	Potassium	70	U		6010C
14808-60-7	SiO2, Silica	140	U		6010C
7440-70-2	Calcium	710	U		6010C
7439-89-6	Iron	25	U		6010C
7439-95-4	Magnesium	230	U		6010C
7439-96-5	Manganese	5.1	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-272772/1-A

Instrument Code: I10 Batch No.: 273335

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.558	J		6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	1.34	J		6020A
7440-41-7	Beryllium	0.40	U		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.334	J		6020A
7440-50-8	Copper	0.665	J		6020A
7439-89-6	Iron	16.2	J		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	1.08	J		6020A
7440-02-0	Nickel	0.368	J		6020A
7439-92-1	Lead	0.16	U		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	6.2	U		6020A
7440-22-4	Silver	0.030	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-272983/1-A

Instrument Code: I10 Batch No.: 273335

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	4.69			6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	1.45	J		6020A
7440-41-7	Beryllium	0.40	U		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.26	U		6020A
7440-50-8	Copper	0.797	J		6020A
7439-89-6	Iron	14.5	J		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	0.366	J		6020A
7440-02-0	Nickel	0.302	J		6020A
7439-92-1	Lead	0.259	J		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	7.44	J		6020A
7440-22-4	Silver	0.0820	J		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-272983/1-A

Instrument Code: I10 Batch No.: 273538

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.432	J		6020A

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-272774/1-A

Instrument Code: H2 Batch No.: 273150

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-272984/1-A

Instrument Code: H2 Batch No.: 273252

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICSA 240-273205/8 Instrument ID: I9

Lab File ID: I9040317A.asc ICS Source: MTTRICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**475750**	**95**
Iron	**200000**	**189780**	**95**
Magnesium	**500000**	**507690**	**102**
Manganese		**2.23**	
Potassium		**42.5**	
Sodium		**61.9**	
Aluminum	*500000*	*510090*	*102*
Antimony		*-1.73*	
Arsenic		*6.41*	
Barium		*0.154*	
Beryllium		*-0.0472*	
Boron		*-5.78*	
Cadmium		*0.491*	
Chromium		*3.19*	
Cobalt		*-0.237*	
Copper		*-2.92*	
Lead		*4.33*	
Lithium		*9.12*	
Molybdenum		*-0.569*	
Nickel		*1.10*	
Selenium		*2.54*	
Silicon		*21.0*	
Silver		*-0.500*	
Strontium		*5.48*	
Thallium		*1.45*	
Tin		*5.08*	
Titanium		*-0.550*	
Vanadium		*-1.44*	
Zinc		*1.31*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICSAB 240-273205/9 Instrument ID: I9

Lab File ID: I9040317A.asc ICS Source: MTICPICSABW_00013

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**477110**	**95**
Iron	**200000**	**192640**	**96**
Magnesium	**500000**	**519060**	**104**
Manganese	**500**	**499**	**100**
Potassium	**10000**	**10518**	**105**
Sodium	**10000**	**10596**	**106**
Aluminum	*500000*	*515450*	*103*
Antimony	*1000*	*1034*	*103*
Arsenic	*1000*	*1041*	*104*
Barium	*500*	*500*	*100*
Beryllium	*500*	*484*	*97*
Boron	*500*	*503*	*101*
Cadmium	*1000*	*1035*	*104*
Chromium	*500*	*488*	*98*
Cobalt	*500*	*508*	*102*
Copper	*500*	*525*	*105*
Lead	*1000*	*885*	*88*
Lithium	*500*	*543*	*109*
Molybdenum	*1000*	*938*	*94*
Nickel	*1000*	*1005*	*101*
Selenium	*1000*	*1015*	*101*
Silicon	*10000*	*10091*	*101*
Silver	*1000*	*1100*	*110*
Strontium	*1500*	*1428*	*95*
Thallium	*1000*	*950*	*95*
Tin	*500*	*523*	*105*
Titanium	*500*	*505*	*101*
Vanadium	*500*	*488*	*98*
Zinc	*1000*	*1044*	*104*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICSA 240-273782/8 Instrument ID: I9

Lab File ID: I9040617A.asc ICS Source: MTTRICSAW_00033

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**481810**	**96**
Iron	**200000**	**190950**	**95**
Magnesium	**500000**	**511860**	**102**
Manganese		**1.92**	
Potassium		**48.5**	
Sodium		**58.6**	
Aluminum	*500000*	*520050*	*104*
Antimony		*4.09*	
Arsenic		*5.26*	
Barium		*0.0565*	
Beryllium		*-0.0455*	
Boron		*-4.65*	
Cadmium		*0.726*	
Chromium		*3.62*	
Cobalt		*0.412*	
Copper		*-4.07*	
Lead		*4.49*	
Lithium		*11.3*	
Molybdenum		*-0.639*	
Nickel		*2.45*	
Selenium		*4.54*	
Silicon		*15.8*	
Silver		*-0.545*	
Strontium		*4.74*	
Thallium		*1.45*	
Tin		*5.68*	
Titanium		*-0.822*	
Vanadium		*-1.46*	
Zinc		*0.866*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICSAB 240-273782/9 Instrument ID: I9

Lab File ID: I9040617A.asc ICS Source: MTICPICSABW_00013

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**482910**	**97**
Iron	**200000**	**190990**	**95**
Magnesium	**500000**	**514950**	**103**
Manganese	**500**	**504**	**101**
Potassium	**10000**	**10395**	**104**
Sodium	**10000**	**10486**	**105**
Aluminum	*500000*	*518900*	*104*
Antimony	*1000*	*1049*	*105*
Arsenic	*1000*	*1044*	*104*
Barium	*500*	*500*	*100*
Beryllium	*500*	*491*	*98*
Boron	*500*	*509*	*102*
Cadmium	*1000*	*1046*	*105*
Chromium	*500*	*497*	*99*
Cobalt	*500*	*514*	*103*
Copper	*500*	*530*	*106*
Lead	*1000*	*902*	*90*
Lithium	*500*	*537*	*107*
Molybdenum	*1000*	*948*	*95*
Nickel	*1000*	*1017*	*102*
Selenium	*1000*	*1028*	*103*
Silicon	*10000*	*10210*	*102*
Silver	*1000*	*1115*	*112*
Strontium	*1500*	*1425*	*95*
Thallium	*1000*	*962*	*96*
Tin	*500*	*529*	*106*
Titanium	*500*	*514*	*103*
Vanadium	*500*	*486*	*97*
Zinc	*1000*	*1055*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICSA 240-273335/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.220**	
Arsenic		**0.0460**	
Barium		**0.0600**	
Beryllium		**-0.0070**	
Cadmium		**0.0290**	
Chromium		**0.664**	
Cobalt		**0.0020**	
Copper		**0.360**	
Iron	**50000**	**50570**	**101**
Lead		**0.128**	
Manganese		**0.160**	
Molybdenum	**1000**	**1006**	**101**
Nickel		**0.0640**	
Selenium		**0.0030**	
Silver		**0.0150**	
Thallium		**0.0010**	
Vanadium		**-0.0180**	
Zinc		**0.158**	
Aluminum	*50000*	*49376*	*99*
Boron		*0.196*	
Calcium	*50000*	*51224*	*102*
Lithium		*-0.0600*	
Magnesium	*50000*	*50212*	*100*
Potassium	*50000*	*50863*	*102*
Sodium	*50000*	*49972*	*100*
Strontium		*0.365*	
Tin		*0.221*	
Titanium	*1000*	*1009*	*101*
Tungsten		*0.671*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICSAB 240-273335/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00075

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**99.6**	**100**
Arsenic	**100**	**99.0**	**99**
Barium	**100**	**100**	**100**
Beryllium	**100**	**104**	**104**
Cadmium	**100**	**99.2**	**99**
Chromium	**100**	**104**	**104**
Cobalt	**100**	**103**	**103**
Copper	**100**	**103**	**103**
Iron	**50000**	**51133**	**102**
Lead	**100**	**106**	**106**
Manganese	**100**	**103**	**103**
Molybdenum	**1100**	**1112**	**101**
Nickel	**100**	**105**	**105**
Selenium	**100**	**97.9**	**98**
Silver	**100**	**92.1**	**92**
Thallium	**100**	**107**	**107**
Vanadium	**100**	**103**	**103**
Zinc	**100**	**105**	**105**
Aluminum	*50000*	*49861*	*100*
Boron	*100*	*96.4*	*96*
Calcium	*50000*	*51700*	*103*
Lithium	*100*	*106*	*106*
Magnesium	*50000*	*50061*	*100*
Potassium	*50000*	*51856*	*104*
Sodium	*50000*	*50893*	*102*
Strontium	*100*	*97.2*	*97*
Tin	*100*	*95.0*	*95*
Titanium	*1100*	*1126*	*102*
Tungsten	*100*	*107*	*107*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICSA 240-273538/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.293**	
Zinc		**-6.52**	
Aluminum	*50000*	*48390*	*97*
Arsenic		*0.0500*	
Barium		*-0.0410*	
Beryllium		*0.0070*	
Boron		*0.933*	
Cadmium		*0.0150*	
Calcium	*50000*	*50983*	*102*
Chromium		*0.676*	
Cobalt		*-0.0040*	
Copper		*0.266*	
Iron	*50000*	*51155*	*102*
Lead		*0.108*	
Lithium		*-0.0550*	
Magnesium	*50000*	*50405*	*101*
Manganese		*-0.661*	
Molybdenum	*1000*	*995*	*99*
Nickel		*-0.221*	
Potassium	*50000*	*50423*	*101*
Selenium		*0.104*	
Silver		*0.0130*	
Sodium	*50000*	*50414*	*101*
Strontium		*0.257*	
Thallium		*0.0020*	
Tin		*0.320*	
Titanium	*1000*	*1030*	*103*
Tungsten		*0.628*	
Vanadium		*0.0470*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Lab Sample ID: ICSAB 240-273538/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00075

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Zinc	**100**	**105**	**105**
Aluminum	*50000*	*48667*	*97*
Arsenic	*100*	*100*	*100*
Barium	*100*	*101*	*101*
Beryllium	*100*	*100*	*100*
Boron	*100*	*101*	*101*
Cadmium	*100*	*99.6*	*100*
Calcium	*50000*	*51232*	*102*
Chromium	*100*	*104*	*104*
Cobalt	*100*	*103*	*103*
Copper	*100*	*103*	*103*
Iron	*50000*	*51239*	*102*
Lead	*100*	*107*	*107*
Lithium	*100*	*101*	*101*
Magnesium	*50000*	*51028*	*102*
Manganese	*100*	*104*	*104*
Molybdenum	*1100*	*1103*	*100*
Nickel	*100*	*104*	*104*
Potassium	*50000*	*50602*	*101*
Selenium	*100*	*100*	*100*
Silver	*100*	*92.4*	*92*
Sodium	*50000*	*50349*	*101*
Strontium	*100*	*99.0*	*99*
Thallium	*100*	*105*	*105*
Tin	*100*	*95.6*	*96*
Titanium	*1100*	*1130*	*103*
Tungsten	*100*	*105*	*105*
Vanadium	*100*	*104*	*104*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77417-N-3-B MS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Sodium	60600		11000		50000	100	75-125		6010C
Potassium	49900		1500	J	50000	97	75-125		6010C
SiO2, Silica	20300		16000		2140	207	75-125	4	6010C
Calcium	151000		100000		50000	95	75-125		6010C
Iron	2080		1400		1000	65	75-125	F1	6010C
Magnesium	62500		13000		50000	99	75-125		6010C
Manganese	663		190		500	94	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77417-N-3-D MS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	106		2.0		100	104	75-125		6020A
Arsenic	993		2.2	J	1000	99	75-125		6020A
Barium	1210		75		1000	113	75-125		6020A
Beryllium	1040		0.40	U	1000	104	75-125		6020A
Cadmium	1010		0.31	U	1000	101	75-125		6020A
Cobalt	987		0.95	J	1000	99	75-125		6020A
Chromium	975		1.3	J	1000	97	75-125		6020A
Copper	987		1.4	J	1000	99	75-125		6020A
Iron	11000		1400		10000	97	75-125		6020A
Molybdenum	106		1.4	J	100	105	75-125		6020A
Manganese	1150		190		1000	96	75-125		6020A
Nickel	1010		1.8	J	1000	101	75-125		6020A
Lead	1000		1.0		1000	100	75-125		6020A
Selenium	985		1.1	J	1000	98	75-125		6020A
Thallium	251		0.28	U	250	100	75-125		6020A
Vanadium	975		1.2	J	1000	97	75-125		6020A
Zinc	977		6.2	U	1000	98	75-125		6020A
Silver	102		0.096	J	100	102	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-77417-N-3-G MS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.08		0.13	U	1.00	108	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77471-D-3-B MS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Arsenic	944		0.70	J	1000	94	75-125		6020A
Barium	1570		440		1000	112	75-125		6020A
Beryllium	977		0.40	U	1000	98	75-125		6020A
Cadmium	915		0.44	J	1000	91	75-125		6020A
Cobalt	919		1.6		1000	92	75-125		6020A
Chromium	948		1.0	J	1000	95	75-125		6020A
Copper	890		1.4	J	1000	89	75-125		6020A
Iron	9950		770		10000	92	75-125		6020A
Molybdenum	113		3.5	J	100	109	75-125		6020A
Manganese	1210		300		1000	92	75-125		6020A
Nickel	925		1.7	J	1000	92	75-125		6020A
Lead	940		0.59	J	1000	94	75-125		6020A
Selenium	879		1.5	J	1000	88	75-125		6020A
Thallium	237		0.28	J	250	95	75-125		6020A
Vanadium	956		0.72	J	1000	96	75-125		6020A
Zinc	842		6.2	U	1000	84	75-125		6020A
Silver	94.1		0.45	J	100	94	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-77471-D-3-E MS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.10		0.13	U	1.00	110	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77618-G-2-B MS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Sodium	53400		4600	J	50000	98	75-125		6010C
Potassium	54900		5700		50000	98	75-125		6010C
SiO2, Silica	45700		45000		2140	39	75-125	4	6010C
Calcium	54400		4000	J	50000	101	75-125		6010C
Iron	3610		2700		1000	94	75-125		6010C
Magnesium	52100		2300	J	50000	100	75-125		6010C
Manganese	573		65		500	101	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77417-N-3-C MSD

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Sodium	61300		50000	101	75-125	1	20		6010C
Potassium	50700		50000	98	75-125	1	20		6010C
SiO2, Silica	20200		2140	206	75-125	0	20	4	6010C
Calcium	151000		50000	96	75-125	0	20		6010C
Iron	2100		1000	67	75-125	1	20	F1	6010C
Magnesium	63100		50000	100	75-125	1	20		6010C
Manganese	671		500	96	75-125	1	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77417-N-3-E MSD

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	102		100	100	75-125	3	20		6020A
Arsenic	988		1000	99	75-125	0	20		6020A
Barium	1210		1000	114	75-125	1	20		6020A
Beryllium	1020		1000	102	75-125	2	20		6020A
Cadmium	1020		1000	102	75-125	1	20		6020A
Cobalt	983		1000	98	75-125	0	20		6020A
Chromium	965		1000	96	75-125	1	20		6020A
Copper	982		1000	98	75-125	0	20		6020A
Iron	11000		10000	96	75-125	0	20		6020A
Molybdenum	105		100	103	75-125	1	20		6020A
Manganese	1160		1000	97	75-125	1	20		6020A
Nickel	1000		1000	100	75-125	1	20		6020A
Lead	1010		1000	101	75-125	1	20		6020A
Selenium	983		1000	98	75-125	0	20		6020A
Thallium	254		250	102	75-125	1	20		6020A
Vanadium	965		1000	96	75-125	1	20		6020A
Zinc	978		1000	98	75-125	0	20		6020A
Silver	103		100	103	75-125	1	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-77417-N-3-H MSD

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.980		1.00	98	80-120	10	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77471-D-3-C MSD

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	957		1000	96	75-125	1	20		6020A
Barium	1580		1000	114	75-125	1	20		6020A
Beryllium	977		1000	98	75-125	0	20		6020A
Cadmium	935		1000	93	75-125	2	20		6020A
Cobalt	909		1000	91	75-125	1	20		6020A
Chromium	924		1000	92	75-125	3	20		6020A
Copper	870		1000	87	75-125	2	20		6020A
Iron	9890		10000	91	75-125	1	20		6020A
Molybdenum	112		100	109	75-125	1	20		6020A
Manganese	1220		1000	92	75-125	1	20		6020A
Nickel	910		1000	91	75-125	2	20		6020A
Lead	938		1000	94	75-125	0	20		6020A
Selenium	885		1000	88	75-125	1	20		6020A
Thallium	237		250	95	75-125	0	20		6020A
Vanadium	928		1000	93	75-125	3	20		6020A
Zinc	835		1000	84	75-125	1	20		6020A
Silver	95.0		100	95	75-125	1	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-77471-D-3-F MSD

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.09		1.00	109	80-120	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77618-G-2-C MSD

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Sodium	52800		50000	96	75-125	1	20		6010C
Potassium	54400		50000	97	75-125	1	20		6010C
SiO2, Silica	49400		2140	212	75-125	8	20	4	6010C
Calcium	53700		50000	99	75-125	1	20		6010C
Iron	3540		1000	87	75-125	2	20		6010C
Magnesium	51800		50000	99	75-125	1	20		6010C
Manganese	564		500	100	75-125	2	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: Lab ID: 240-77417-N-3-A PDS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	2750		1400		1000	132	80-120	W	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-272772/2-A

Lab Name: TestAmerica Canton Job No.: 240-77416-1

Sample Matrix: Water LCS Source: MTICP2A_00070

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Sodium	50000	48500		97	80	120		6010C
Potassium	50000	47200		94	80	120		6010C
SiO2, Silica	2140	2120		99	80	120		6010C
Calcium	50000	48600		97	80	120		6010C
Iron	1000	1010		101	80	120		6010C
Magnesium	50000	49800		100	80	120		6010C
Manganese	500	491		98	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-273377/2-A

Lab Name: TestAmerica Canton Job No.: 240-77416-1

Sample Matrix: Water LCS Source: MTICP2A_00070

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Sodium	50000	48400		97	80	120		6010C
Potassium	50000	48600		97	80	120		6010C
SiO2, Silica	2140	2230		104	80	120		6010C
Calcium	50000	50100		100	80	120		6010C
Iron	1000	1020		102	80	120		6010C
Magnesium	50000	49500		99	80	120		6010C
Manganese	500	505		101	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-272983/2-A

Lab Name: TestAmerica Canton Job No.: 240-77416-1

Sample Matrix: Water LCS Source: MTICPMSB_00030

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	99.9		100	80	120		6020A
Arsenic	1000	972		97	80	120		6020A
Barium	1000	1050		105	80	120		6020A
Beryllium	1000	1040		104	80	120		6020A
Cadmium	1000	1040		104	80	120		6020A
Cobalt	1000	987		99	80	120		6020A
Chromium	1000	977		98	80	120		6020A
Copper	1000	1020		102	80	120		6020A
Iron	10000	9820		98	80	120		6020A
Molybdenum	100	98.8		99	80	120		6020A
Manganese	1000	963		96	80	120		6020A
Nickel	1000	1040		104	80	120		6020A
Lead	1000	1030		103	80	120		6020A
Selenium	1000	1000		100	80	120		6020A
Thallium	250	255		102	80	120		6020A
Vanadium	1000	950		95	80	120		6020A
Zinc	1000	1040		104	80	120		6020A
Silver	100	102		102	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-272772/3-A

Lab Name: TestAmerica Canton Job No.: 240-77416-1

Sample Matrix: Water LCS Source: MTICPMSB_00030

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	101		101	80	120		6020A
Arsenic	1000	1010		101	80	120		6020A
Barium	1000	1110		111	80	120		6020A
Beryllium	1000	1030		103	80	120		6020A
Cadmium	1000	1040		104	80	120		6020A
Cobalt	1000	980		98	80	120		6020A
Chromium	1000	965		96	80	120		6020A
Copper	1000	1000		100	80	120		6020A
Iron	10000	9680		97	80	120		6020A
Molybdenum	100	99.6		100	80	120		6020A
Manganese	1000	970		97	80	120		6020A
Nickel	1000	1020		102	80	120		6020A
Lead	1000	1030		103	80	120		6020A
Selenium	1000	1030		103	80	120		6020A
Thallium	250	255		102	80	120		6020A
Vanadium	1000	947		95	80	120		6020A
Zinc	1000	1010		101	80	120		6020A
Silver	100	101		101	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-272983/2-A

Lab Name: TestAmerica Canton Job No.: 240-77416-1

Sample Matrix: Water LCS Source: MTICPMSB_00030

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	99.8		100	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-272774/2-A

Lab Name: TestAmerica Canton Job No.: 240-77416-1

Sample Matrix: Water LCS Source: MTHGCALW_01466

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.33		107	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-272984/2-A

Lab Name: TestAmerica Canton Job No.: 240-77416-1

Sample Matrix: Water LCS Source: MTHGCALW_01468

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.83		97	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-77417-N-3-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-77416-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Sodium	11000		10200	J	NC		6010C
Potassium	1500	J	1530	J	NC		6010C
SiO2, Silica	16000		15300		3.3		6010C
Calcium	100000		99300		4.1		6010C
Iron	1400		1380		3.6		6010C
Magnesium	13000		12700	J	3.4		6010C
Manganese	190		191		NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-77618-G-2-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-77416-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Sodium	4600	J	5620	J	NC		6010C
Potassium	5700		6690	J	18	V	6010C
SiO2, Silica	45000		52100		16	V	6010C
Calcium	4000	J	4630	J	NC		6010C
Iron	2700		2990		12	V	6010C
Magnesium	2300	J	2600	J	NC		6010C
Manganese	65		74.3	J	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-77417-N-3-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-77416-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	2.0		3.01	J	NC		6020A
Arsenic	2.2	J	2.07	J	NC		6020A
Barium	75		74.1		NC		6020A
Beryllium	0.40	U	2.0	U	NC		6020A
Cadmium	0.31	U	1.6	U	NC		6020A
Cobalt	0.95	J	0.930	J	NC		6020A
Chromium	1.3	J	1.3	U	NC		6020A
Copper	1.4	J	1.8	U	NC		6020A
Iron	1400		1430		NC		6020A
Molybdenum	1.4	J	2.6	U	NC		6020A
Manganese	190		198		NC		6020A
Nickel	1.8	J	1.81	J	NC		6020A
Lead	1.0		1.24	J	NC		6020A
Selenium	1.1	J	2.4	U	NC		6020A
Thallium	0.28	U	1.4	U	NC		6020A
Vanadium	1.2	J	2.7	U	NC		6020A
Zinc	6.2	U	31	U	NC		6020A
Silver	0.096	J	0.15	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-77471-D-3-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-77416-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Arsenic	0.70	J	1.8	U	NC		6020A
Barium	440		443		NC		6020A
Beryllium	0.40	U	2.0	U	NC		6020A
Cadmium	0.44	J	1.6	U	NC		6020A
Cobalt	1.6		1.62	J	NC		6020A
Chromium	1.0	J	1.64	J	NC		6020A
Copper	1.4	J	2.25	J	NC		6020A
Iron	770		923		NC		6020A
Molybdenum	3.5	J	3.70	J	NC		6020A
Manganese	300		321		NC		6020A
Nickel	1.7	J	2.81	J	NC		6020A
Lead	0.59	J	3.93	J	NC		6020A
Selenium	1.5	J	2.4	U	NC		6020A
Thallium	0.28	J	1.4	U	NC		6020A
Vanadium	0.72	J	2.7	U	NC		6020A
Zinc	6.2	U	31	U	NC		6020A
Silver	0.45	J	0.15	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/04/2017 End Date: 04/04/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-273335/3 I	12:28	105		105		105		100		102	
STD2 240-273335/4 I	12:32	107		110		107		99		102	
STD3 240-273335/5 I	12:37	108		108		105		96		101	
STD4 240-273335/6 I	12:41	108		108		106		103		105	
ICV 240-273335/7	12:45	108		110		110		102		105	
ICB 240-273335/8	12:49	114		111		111		109		110	
ICVL 240-273335/9	12:53	113		113		113		111		111	
ICSA 240-273335/10	12:58	96		101		99		93		96	
ICSAB 240-273335/11	13:02	91		98		96		93		96	
CCV 240-273335/40	15:07	100		106		105		97		99	
CCB 240-273335/41	15:11	106		104		106		104		105	
MB 240-272983/1-A	15:15	97		100		102		97		98	
LCS 240-272983/2-A	15:19	92		97		100		93		95	
240-77471-D-3-A SD	15:28	104		109		110		100		103	
240-77471-D-3-B MS	15:36	91		97		98		82		87	
240-77471-D-3-C MSD	15:40	90		97		96		81		85	
240-77566-1	15:52	88		93		98		87		89	
CCV 240-273335/52	15:56	102		109		106		100		102	
CCB 240-273335/53	16:01	102		105		106		105		107	
240-77566-2	16:05	93		99		101		92		95	
240-77566-3	16:09	96		99		102		95		96	
240-77566-4	16:13	93		97		102		92		92	
240-77566-8	16:18	94		97		101		94		94	
CCV 240-273335/58	16:22	101		106		105		98		102	
CCB 240-273335/59	16:26	102		103		105		103		106	
CCVL 240-273335/60	16:30	103		104		105		104		104	
CCV 240-273335/79	17:50	99		107		103		95		100	
CCB 240-273335/80	17:54	105		109		108		106		108	
MB 240-272772/1-A	17:59	93		102		99		101		102	
LCS 240-272772/3-A	18:03	94		99		100		94		96	
240-77417-N-3-A SD	18:11	99		105		103		100		104	
240-77417-N-3-D MS	18:19	84		92		93		86		90	
240-77417-N-3-E MSD	18:23	84		90		92		85		89	
240-77416-1	18:27	89		93		97		89		93	
CCV 240-273335/89	18:31	99		105		104		95		100	
CCB 240-273335/90	18:35	100		100		101		100		104	
CCVL 240-273335/91	18:40	98		101		99		98		101	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/04/2017 End Date: 04/04/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-273335/3 I	12:28	101		101		100					
STD2 240-273335/4 I	12:32	104		102		97					
STD3 240-273335/5 I	12:37	102		101		96					
STD4 240-273335/6 I	12:41	104		102		98					
ICV 240-273335/7	12:45	104		103		100					
ICB 240-273335/8	12:49	107		106		105					
ICVL 240-273335/9	12:53	107		106		107					
ICSA 240-273335/10	12:58	95		93		96					
ICSAB 240-273335/11	13:02	94		93		95					
CCV 240-273335/40	15:07	102		101		95					
CCB 240-273335/41	15:11	103		104		104					
MB 240-272983/1-A	15:15	100		98		108					
LCS 240-272983/2-A	15:19	97		96		97					
240-77471-D-3-A SD	15:28	104		103		100					
240-77471-D-3-B MS	15:36	90		88		79					
240-77471-D-3-C MSD	15:40	89		88		79					
240-77566-1	15:52	94		94		89					
CCV 240-273335/52	15:56	105		104		96					
CCB 240-273335/53	16:01	106		105		104					
240-77566-2	16:05	97		97		97					
240-77566-3	16:09	100		99		97					
240-77566-4	16:13	99		98		94					
240-77566-8	16:18	99		98		96					
CCV 240-273335/58	16:22	102		101		95					
CCB 240-273335/59	16:26	104		103		102					
CCVL 240-273335/60	16:30	103		103		103					
CCV 240-273335/79	17:50	100		99		93					
CCB 240-273335/80	17:54	106		104		103					
MB 240-272772/1-A	17:59	100		100		105					
LCS 240-272772/3-A	18:03	95		95		97					
240-77417-N-3-A SD	18:11	104		102		103					
240-77417-N-3-D MS	18:19	94		94		89					
240-77417-N-3-E MSD	18:23	93		91		89					
240-77416-1	18:27	96		94		92					
CCV 240-273335/89	18:31	100		99		94					
CCB 240-273335/90	18:35	102		100		99					
CCVL 240-273335/91	18:40	99		99		97					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/05/2017 End Date: 04/05/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-273538/3 I	11:14	107		105		104		100		103	
STD2 240-273538/4 I	11:18	106		110		107		98		103	
STD3 240-273538/5 I	11:22	109		109		109		97		102	
STD4 240-273538/6 I	11:26	106		109		107		104		105	
ICV 240-273538/7	11:31	113		114		114		104		107	
ICB 240-273538/8	11:35	113		109		112		108		108	
ICVL 240-273538/9	11:39	112		112		111		108		108	
ICSA 240-273538/10	11:43	102		103		103		95		99	
ICSAB 240-273538/11	11:47	99		102		102		96		99	
CCV 240-273538/21	12:34	104		105		103		96		100	
CCB 240-273538/22	12:38	103		100		103		100		101	
MB 240-272983/1-A	12:43	101		102		103		100		99	
LCS 240-272983/2-A	12:48	95		98		100		95		94	
CCV 240-273538/32	13:20	95		98		98		93		97	
CCB 240-273538/33	13:25	94		91		94		94		96	
240-77566-1	13:37	85		90		88		83		88	
240-77566-4	13:42	81		84		84		79		84	
240-77566-4	13:46	93		94		92		94		99	
CCV 240-273538/39	13:50	96		99		95		94		98	
CCB 240-273538/40	13:54	97		96		96		98		104	
CCVL 240-273538/41	13:58	101		99		100		99		106	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/05/2017 End Date: 04/05/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-273538/3 I	11:14	103		101		101					
STD2 240-273538/4 I	11:18	105		102		99					
STD3 240-273538/5 I	11:22	104		103		98					
STD4 240-273538/6 I	11:26	105		104		101					
ICV 240-273538/7	11:31	106		105		104					
ICB 240-273538/8	11:35	107		104		106					
ICVL 240-273538/9	11:39	107		103		106					
ICSA 240-273538/10	11:43	97		96		98					
ICSAB 240-273538/11	11:47	99		96		98					
CCV 240-273538/21	12:34	101		101		96					
CCB 240-273538/22	12:38	101		100		102					
MB 240-272983/1-A	12:43	103		102		109					
LCS 240-272983/2-A	12:48	101		99		100					
CCV 240-273538/32	13:20	101		99		95					
CCB 240-273538/33	13:25	99		96		99					
240-77566-1	13:37	94		94		90					
240-77566-4	13:42	92		90		88					
240-77566-4	13:46	101		99		102					
CCV 240-273538/39	13:50	102		100		96					
CCB 240-273538/40	13:54	103		101		104					
CCVL 240-273538/41	13:58	107		105		106					

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	710
Iron	271.441	100	25
Magnesium	279.078	5000	230
Manganese	257.610	15	5.1
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	710
Iron	271.441	100	25
Magnesium	279.078	5000	230
Manganese	257.610	15	5.1
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 12/13/2016 11:36

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.27
Arsenic	75.00	5	0.35
Barium	137.00	5	0.52
Beryllium	9.00	1	0.4
Cadmium	111.00	1	0.31
Chromium	52.00	2	0.26
Cobalt	59.00	1	0.13
Copper	65.00	2	0.36
Lead	208.00	1	0.16
Molybdenum	95.00	10	0.51
Nickel	60.00	2	0.28
Selenium	78.00	5	0.48
Silver	107.00	1	0.03
Thallium	205.00	1	0.28
Vanadium	51.00	5	0.54
Zinc	66.00	20	6.22

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 09/15/2014 17:03

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.16
Arsenic	75.00	5	0.49
Barium	137.00	5	1.1
Beryllium	9.00	1	0.053
Cadmium	111.00	1	0.061
Chromium	52.00	2	0.6
Cobalt	59.00	1	0.021
Copper	65.00	2	0.75
Lead	208.00	1	0.11
Molybdenum	95.00	10	0.23
Nickel	60.00	2	0.23
Selenium	78.00	5	0.25
Silver	107.00	1	0.02
Thallium	205.00	1	0.074
Vanadium	51.00	5	0.23
Zinc	66.00	20	7.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 02/13/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.029315					0.096009
Antimony		-0.000073			-0.000451			-0.000051							0.002146
Arsenic		0.000034			-0.00051	0.000538			-0.000355	0.001291					
Barium															
Beryllium															0.0000165
Boron															
Cadmium			0.006886					0.000001							
Calcium															
Chromium															
Cobalt													0.002313		
Copper				0.000018	0.000453			-0.000001					-0.000463		
Iron													-		
Lead		-0.000122					0.000515	0.000028			0.00007657	0.000088			
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000799			0.000075							
Potassium															
Selenium		-0.000010							0.000643						
Silver															
Sodium															
Strontium															
Thallium		-0.000010			0.001132			0.000007	0.001101				-0.000497		-0.0005212
Tin															
Titanium															
Vanadium								0.000032							
Zinc						-0.000286									

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-77416-1

SDG No.:

Instrument ID: I9 Date: 08/22/2016 11:36

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Sodium		500000	6010C
Potassium		500000	6010C
SiO2, Silica		428000	6010C
Calcium		800000	6010C
Iron		500000	6010C
Magnesium		500000	6010C
Manganese		15000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-77416-1

SDG No.:

Instrument ID: I10 Date: 10/14/2016 11:32

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Arsenic		10000	6020A
Barium		10000	6020A
Beryllium		2000	6020A
Cadmium		4000	6020A
Cobalt		5000	6020A
Chromium		10000	6020A
Copper		10000	6020A
Molybdenum		2000	6020A
Nickel		10000	6020A
Lead		4000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Vanadium		10000	6020A
Zinc		10000	6020A
Silver		300	6020A

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-77416-1

SDG No.:

Instrument ID: H2 Date: 05/15/2016 09:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-272772/1-A	03/31/2017 14:00	272772		50	50
LCS 240-272772/2-A	03/31/2017 14:00	272772		50	50
240-77417-N-3-B MS	03/31/2017 14:00	272772		50	50
240-77417-N-3-C MSD	03/31/2017 14:00	272772		50	50
240-77416-1	03/31/2017 14:00	272772		50	50
240-77416-2	03/31/2017 14:00	272772		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-273377/1-A	04/05/2017 14:00	273377		50	50
LCS 240-273377/2-A	04/05/2017 14:00	273377		50	50
240-77618-G-2-B MS	04/05/2017 14:00	273377		50	50
240-77618-G-2-C MSD	04/05/2017 14:00	273377		50	50
240-77601-2	04/05/2017 14:00	273377		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-272772/1-A	03/31/2017 14:00	272772		50	50
LCS 240-272772/3-A	03/31/2017 14:00	272772		50	50
240-77417-N-3-D MS	03/31/2017 14:00	272772		50	50
240-77417-N-3-E MSD	03/31/2017 14:00	272772		50	50
240-77416-1	03/31/2017 14:00	272772		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-272983/1-A	04/03/2017 14:00	272983		50	50
LCS 240-272983/2-A	04/03/2017 14:00	272983		50	50
240-77471-D-3-B MS	04/03/2017 14:00	272983		50	50
240-77471-D-3-C MSD	04/03/2017 14:00	272983		50	50
240-77566-1	04/03/2017 14:00	272983		50	50
240-77566-2	04/03/2017 14:00	272983		50	50
240-77566-3	04/03/2017 14:00	272983		50	50
240-77566-4	04/03/2017 14:00	272983		50	50
240-77566-8	04/03/2017 14:00	272983		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-272774/1-A	03/31/2017 14:00	272774		50	50
LCS 240-272774/2-A	03/31/2017 14:00	272774		50	50
240-77417-N-3-G MS	03/31/2017 14:00	272774		50	50
240-77417-N-3-H MSD	03/31/2017 14:00	272774		50	50
240-77416-1	03/31/2017 14:00	272774		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-272984/1-A	04/03/2017 14:00	272984		50	50
LCS 240-272984/2-A	04/03/2017 14:00	272984		50	50
240-77471-D-3-E MS	04/03/2017 14:00	272984		50	50
240-77471-D-3-F MSD	04/03/2017 14:00	272984		50	50
240-77566-1	04/03/2017 14:00	272984		50	50
240-77566-2	04/03/2017 14:00	272984		50	50
240-77566-3	04/03/2017 14:00	272984		50	50
240-77566-4	04/03/2017 14:00	272984		50	50
240-77566-8	04/03/2017 14:00	272984		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/03/2017 09:57 End Date: 04/03/2017 21:27

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ca	Fe	K	Mg	Mn	Na	SiO2																							
ICIS 240-273205/1	1		09:57	X	X	X	X	X	X	X																							
CALSTD 240-273205/2 IC			10:01	X	X	X	X	X	X	X																							
CALSTD 240-273205/3 IC			10:06	X	X	X	X	X	X	X																							
ICV 240-273205/4	1		10:10	X	X	X	X	X	X	X																							
ICB 240-273205/5	1		10:14	X	X	X	X	X	X	X																							
ICVL 240-273205/6	1		10:19	X	X	X	X	X	X	X																							
ZZZZZZ			10:23																													
ICSA 240-273205/8	1		10:27	X	X	X	X	X	X																							
ICSAB 240-273205/9	1		10:32	X	X	X	X	X	X																							
CCV 240-273205/10			10:36																													
CCB 240-273205/11			10:40																													
ZZZZZZ			10:44																													
ZZZZZZ			10:49																													
ZZZZZZ			10:53																													
ZZZZZZ			10:57																													
ZZZZZZ			11:02																													
ZZZZZZ			11:06																													
CCV 240-273205/18	1		11:11	X	X	X	X	X	X	X																							
CCB 240-273205/19	1		11:15	X	X	X	X	X	X	X																							
MB 240-272772/1-A	1	R	11:29	X	X	X	X	X	X	X																							
LCS 240-272772/2-A	1	R	11:34	X	X	X	X	X	X	X																							
ZZZZZZ			11:37																													
240-77417-N-3-A SD ^5	5	R	11:42	X	X	X	X	X	X	X																							
240-77417-N-3-B MS	1	R	11:46	X	X	X	X	X	X	X																							
240-77417-N-3-C MSD	1	R	11:50	X	X	X	X	X	X	X																							
240-77417-N-3-A PDS	1	R	11:54		X																											
240-77416-1	1	R	11:58	X	X	X	X	X	X	X																							
240-77416-2	1	R	12:02	X	X	X	X	X	X	X																							
ZZZZZZ			12:07																													
CCV 240-273205/30	1		12:11	X	X	X	X	X	X	X																							
CCB 240-273205/31	1		12:15	X	X	X	X	X	X	X																							
CCVL 240-273205/32	1		12:19	X	X	X	X	X	X	X																							
ZZZZZZ			12:24																													
ZZZZZZ			12:28																													
ZZZZZZ			12:32																													
ZZZZZZ			12:37																													
ZZZZZZ			12:41																													
CCV 240-273205/38			12:45																													
CCB 240-273205/39			12:49																													
ZZZZZZ			13:03																													

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/03/2017 09:57 End Date: 04/03/2017 21:27

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			13:08																										
ZZZZZZ			13:12																										
ZZZZZZ			13:16																										
ZZZZZZ			13:21																										
ZZZZZZ			13:25																										
ZZZZZZ			13:29																										
ZZZZZZ			13:34																										
ZZZZZZ			13:38																										
ZZZZZZ			13:43																										
CCV 240-273205/50			13:47																										
CCB 240-273205/51			13:51																										
ZZZZZZ			13:56																										
ZZZZZZ			14:00																										
ZZZZZZ			14:04																										
ZZZZZZ			14:09																										
ZZZZZZ			14:13																										
ZZZZZZ			14:17																										
ZZZZZZ			14:22																										
ZZZZZZ			14:26																										
ZZZZZZ			14:31																										
ZZZZZZ			14:34																										
CCV 240-273205/62			14:39																										
CCB 240-273205/63			14:43																										
ZZZZZZ			14:47																										
ZZZZZZ			14:51																										
ZZZZZZ			14:55																										
ZZZZZZ			14:59																										
ZZZZZZ			15:03																										
ZZZZZZ			15:08																										
ZZZZZZ			15:12																										
ZZZZZZ			15:16																										
ZZZZZZ			15:21																										
ZZZZZZ			15:25																										
CCV 240-273205/74			15:29																										
CCB 240-273205/75			15:33																										
ZZZZZZ			15:38																										
ZZZZZZ			15:42																										
ZZZZZZ			15:46																										
ZZZZZZ			15:50																										
ZZZZZZ			15:55																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/03/2017 09:57 End Date: 04/03/2017 21:27

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			15:59																										
ZZZZZZ			16:03																										
ZZZZZZ			16:07																										
ZZZZZZ			16:11																										
ZZZZZZ			16:15																										
CCV 240-273205/86			16:20																										
CCB 240-273205/87			16:24																										
ZZZZZZ			16:28																										
ZZZZZZ			16:32																										
ZZZZZZ			16:37																										
ZZZZZZ			16:41																										
ZZZZZZ			16:45																										
ZZZZZZ			16:49																										
ZZZZZZ			16:54																										
ZZZZZZ			16:58																										
ZZZZZZ			17:02																										
ZZZZZZ			17:06																										
CCV 240-273205/98			17:10																										
CCB 240-273205/99			17:14																										
ZZZZZZ			17:19																										
ZZZZZZ			17:23																										
ZZZZZZ			17:28																										
ZZZZZZ			17:32																										
ZZZZZZ			17:36																										
ZZZZZZ			17:41																										
ZZZZZZ			17:46																										
ZZZZZZ			17:50																										
ZZZZZZ			17:54																										
ZZZZZZ			17:59																										
CCV 240-273205/110			18:03																										
CCB 240-273205/111			18:07																										
ZZZZZZ			18:12																										
ZZZZZZ			18:16																										
ZZZZZZ			18:21																										
ZZZZZZ			18:25																										
ZZZZZZ			18:30																										
ZZZZZZ			18:34																										
ZZZZZZ			18:39																										
ZZZZZZ			18:43																										
ZZZZZZ			18:47																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/03/2017 09:57 End Date: 04/03/2017 21:27

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			18:51																										
CCV 240-273205/122			18:56																										
CCB 240-273205/123			19:00																										
ZZZZZZ			19:04																										
ZZZZZZ			19:08																										
ZZZZZZ			19:13																										
ZZZZZZ			19:17																										
ZZZZZZ			19:21																										
ZZZZZZ			19:25																										
ZZZZZZ			19:30																										
ZZZZZZ			19:35																										
ZZZZZZ			19:39																										
ZZZZZZ			19:43																										
CCV 240-273205/134			19:47																										
CCB 240-273205/135			19:51																										
ZZZZZZ			19:56																										
ZZZZZZ			20:00																										
ZZZZZZ			20:04																										
ZZZZZZ			20:08																										
ZZZZZZ			20:13																										
ZZZZZZ			20:17																										
ZZZZZZ			20:22																										
ZZZZZZ			20:26																										
ZZZZZZ			20:31																										
ZZZZZZ			20:35																										
CCV 240-273205/146			20:39																										
CCB 240-273205/147			20:43																										
ZZZZZZ			20:48																										
ZZZZZZ			20:52																										
ZZZZZZ			20:57																										
ZZZZZZ			21:01																										
ZZZZZZ			21:05																										
ZZZZZZ			21:10																										
ZZZZZZ			21:15																										
ZZZZZZ			21:19																										
CCV 240-273205/156			21:23																										
CCB 240-273205/157			21:27																										

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/06/2017 12:04 End Date: 04/07/2017 09:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	K	Mg	Mn	Na	SiO2																				
ICIS 240-273782/1	1		12:04	X	X	X	X	X	X	X																				
CALSTD 240-273782/2 IC			12:09	X	X	X	X	X	X	X																				
CALSTD 240-273782/3 IC			12:13	X	X	X	X	X	X	X																				
ICV 240-273782/4	1		12:18	X	X	X	X	X	X	X																				
ICB 240-273782/5	1		12:22	X	X	X	X	X	X	X																				
ICVL 240-273782/6	1		12:26	X	X	X	X	X	X	X																				
ZZZZZZ			12:30																										
ICSA 240-273782/8	1		12:35	X	X	X	X	X	X																					
ICSAB 240-273782/9	1		12:39	X	X	X	X	X	X																					
CCV 240-273782/10			12:43																											
CCB 240-273782/11			12:47																											
ZZZZZZ			12:52																											
ZZZZZZ			12:56																											
ZZZZZZ			13:00																											
ZZZZZZ			13:05																											
ZZZZZZ			13:09																											
ZZZZZZ			13:14																											
CCV 240-273782/18			13:18																											
CCB 240-273782/19			13:22																											
ZZZZZZ			13:38																											
ZZZZZZ			13:43																											
ZZZZZZ			13:47																											
ZZZZZZ			13:51																											
ZZZZZZ			13:56																											
ZZZZZZ			14:00																											
ZZZZZZ			14:04																											
ZZZZZZ			14:09																											
ZZZZZZ			14:13																											
ZZZZZZ			14:17																											
CCV 240-273782/30	1		14:21	X	X	X	X	X	X	X																				
CCB 240-273782/31	1		14:26	X	X	X	X	X	X	X																				
MB 240-273377/1-A	1	R	14:30	X	X	X	X	X	X	X																				
LCS 240-273377/2-A	1	R	14:34	X	X	X	X	X	X	X																				
ZZZZZZ			14:38																											
240-77618-G-2-A SD ^5	5	R	14:43	X	X	X	X	X	X	X																				
240-77618-G-2-B MS	1	R	14:47	X	X	X	X	X	X	X																				
240-77618-G-2-C MSD	1	R	14:51	X	X	X	X	X	X	X																				
ZZZZZZ			14:55																											
ZZZZZZ			14:59																											
ZZZZZZ			15:03																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/06/2017 12:04 End Date: 04/07/2017 09:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	K	Mg	Mn	Na	SiO2																				
ZZZZZZ			15:07																											
CCV 240-273782/42	1		15:12	X	X	X	X	X	X	X																				
CCB 240-273782/43	1		15:16	X	X	X	X	X	X	X																				
ZZZZZZ			15:20																											
ZZZZZZ			15:25																											
ZZZZZZ			15:29																											
ZZZZZZ			15:34																											
ZZZZZZ			15:38																											
ZZZZZZ			15:42																											
240-77601-2	1	R	15:47	X	X	X	X	X	X	X																				
CCV 240-273782/51	1		15:51	X	X	X	X	X	X	X																				
CCB 240-273782/52	1		15:55	X	X	X	X	X	X	X																				
ZZZZZZ			16:00																											
CCV 240-273782/54			16:04																											
CCB 240-273782/55			16:08																											
ZZZZZZ			16:13																											
ZZZZZZ			16:17																											
ZZZZZZ			16:21																											
ZZZZZZ			16:25																											
ZZZZZZ			16:30																											
ZZZZZZ			16:34																											
ZZZZZZ			16:37																											
ZZZZZZ			16:41																											
ZZZZZZ			16:46																											
ZZZZZZ			16:50																											
CCV 240-273782/66			16:55																											
CCB 240-273782/67			16:59																											
ZZZZZZ			17:04																											
ZZZZZZ			17:08																											
ZZZZZZ			17:12																											
ZZZZZZ			17:17																											
ZZZZZZ			17:21																											
ZZZZZZ			17:26																											
ZZZZZZ			17:30																											
ZZZZZZ			17:35																											
ZZZZZZ			17:39																											
ZZZZZZ			17:43																											
CCV 240-273782/78			17:48																											
CCB 240-273782/79			17:52																											
ZZZZZZ			17:56																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/06/2017 12:04 End Date: 04/07/2017 09:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	K	Mg	Mn	Na	SiO2																				
ZZZZZZ			18:01																											
ZZZZZZ			18:05																											
ZZZZZZ			18:09																											
ZZZZZZ			18:14																											
ZZZZZZ			18:18																											
CCVL 240-273782/86	1		18:22	X	X	X	X	X	X	X																				
ZZZZZZ			18:27																											
ZZZZZZ			18:31																											
ZZZZZZ			18:35																											
CCV 240-273782/90			18:39																											
CCB 240-273782/91			18:43																											
ZZZZZZ			18:48																											
ZZZZZZ			18:52																											
ZZZZZZ			18:56																											
ZZZZZZ			19:00																											
ZZZZZZ			19:04																											
ZZZZZZ			19:08																											
ZZZZZZ			19:13																											
ZZZZZZ			19:17																											
ZZZZZZ			19:21																											
ZZZZZZ			19:26																											
CCV 240-273782/102			19:30																											
CCB 240-273782/103			19:34																											
ZZZZZZ			19:38																											
ZZZZZZ			19:43																											
ZZZZZZ			19:47																											
ZZZZZZ			19:52																											
ZZZZZZ			19:56																											
ZZZZZZ			20:01																											
ZZZZZZ			20:05																											
ZZZZZZ			20:09																											
CCV 240-273782/112			07:52																											
CCB 240-273782/113			07:56																											
EMPTY 240-273782/114			08:01																											
ZZZZZZ			08:05																											
ZZZZZZ			08:10																											
ZZZZZZ			08:14																											
ZZZZZZ			08:19																											
ZZZZZZ			08:23																											
CCV 240-273782/120			08:28																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/06/2017 12:04 End Date: 04/07/2017 09:14

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
CCB 240-273782/121			08:31																										
CCV 240-273782/122			08:36																										
CCB 240-273782/123			08:40																										
CCVL 240-273782/124			08:44																										
ZZZZZZ			08:49																										
ZZZZZZ			08:53																										
ZZZZZZ			08:57																										
ZZZZZZ			09:01																										
ZZZZZZ			09:05																										
CCV 240-273782/130			09:10																										
CCB 240-273782/131			09:14																										

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/04/2017 12:20 End Date: 04/05/2017 05:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			12:20																									
ICIS 240-273335/2			12:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-273335/3 IC	1		12:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-273335/4 IC	1		12:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-273335/5 IC	1		12:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-273335/6 IC	1		12:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-273335/7	1		12:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-273335/8	1		12:49	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ICVL 240-273335/9	1		12:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-273335/10	1		12:58	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X								
ICSAB 240-273335/11	1		13:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-273335/12			13:06																									
CCB 240-273335/13			13:10																									
CCV 240-273335/14			13:17																									
CCB 240-273335/15			13:21																									
ZZZZZZ			13:25																									
ZZZZZZ			13:29																									
CCV 240-273335/18			13:33																									
CCB 240-273335/19			13:38																									
ZZZZZZ			13:42																									
ZZZZZZ			13:46																									
ZZZZZZ			13:50																									
ZZZZZZ			13:55																									
ZZZZZZ			13:59																									
ZZZZZZ			14:03																									
ZZZZZZ			14:07																									
ZZZZZZ			14:11																									
ZZZZZZ			14:15																									
ZZZZZZ			14:20																									
CCV 240-273335/30			14:24																									
CCB 240-273335/31			14:28																									
ZZZZZZ			14:33																									
ZZZZZZ			14:37																									
CCV 240-273335/34			14:42																									
CCB 240-273335/35			14:46																									
ZZZZZZ			14:50																									
ZZZZZZ			14:54																									
ZZZZZZ			14:58																									
ZZZZZZ			15:03																									
CCV 240-273335/40	1		15:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-273335/41	1		15:11	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
MB 240-272983/1-A	1	R	15:15	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/04/2017 12:20 End Date: 04/05/2017 05:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
LCS 240-272983/2-A	1	R	15:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			15:23																									
240-77471-D-3-A SD ^5	5	R	15:28	X	X	X	X	X	X	X	X			X	X	X		X	X	X	X								
ZZZZZZ			15:32																									
240-77471-D-3-B MS	1	R	15:36	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X								
240-77471-D-3-C MSD	1	R	15:40	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X								
ZZZZZZ			15:44																									
ZZZZZZ			15:48																									
240-77566-1	1	R	15:52	X	X	X	X	X	X	X	X			X	X	X		X	X	X	X								
CCV 240-273335/52	1		15:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-273335/53	1		16:01	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
240-77566-2	1	R	16:05	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
240-77566-3	1	R	16:09	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
240-77566-4	1	R	16:13	X	X	X	X	X	X	X	X			X	X	X		X	X	X									
240-77566-8	1	R	16:18	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
CCV 240-273335/58	1		16:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-273335/59	1		16:26	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
CCVL 240-273335/60	1		16:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			16:34																									
ZZZZZZ			16:39																									
ZZZZZZ			16:43																									
ZZZZZZ			16:47																									
ZZZZZZ			16:51																									
ZZZZZZ			16:55																									
ZZZZZZ			17:00																									
ZZZZZZ			17:04																									
ZZZZZZ			17:08																									
CCV 240-273335/70			17:12																									
CCB 240-273335/71			17:16																									
ZZZZZZ			17:21																									
ZZZZZZ			17:25																									
CCV 240-273335/74			17:29																									
CCB 240-273335/75			17:33																									
ZZZZZZ			17:37																									
ZZZZZZ			17:42																									
ZZZZZZ			17:46																									
CCV 240-273335/79	1		17:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-273335/80	1		17:54	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
MB 240-272772/1-A	1	R	17:59	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
LCS 240-272772/3-A	1	R	18:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			18:07																									
240-77417-N-3-A SD ^5	5	R	18:11	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/04/2017 12:20 End Date: 04/05/2017 05:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			18:15																									
240-77417-N-3-D MS	1	R	18:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-77417-N-3-E MSD	1	R	18:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-77416-1	1	R	18:27	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
CCV 240-273335/89	1		18:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-273335/90	1		18:35	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
CCVL 240-273335/91	1		18:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			18:44																									
ZZZZZZ			18:48																									
ZZZZZZ			18:52																									
ZZZZZZ			18:57																									
ZZZZZZ			19:01																									
ZZZZZZ			19:05																									
ZZZZZZ			19:09																									
ZZZZZZ			19:13																									
ZZZZZZ			19:18																									
CCV 240-273335/101			19:22																									
CCB 240-273335/102			19:26																									
ZZZZZZ			19:30																									
ZZZZZZ			19:34																									
ZZZZZZ			19:39																									
ZZZZZZ			19:43																									
ZZZZZZ			19:47																									
ZZZZZZ			19:51																									
ZZZZZZ			19:55																									
ZZZZZZ			20:00																									
ZZZZZZ			20:04																									
ZZZZZZ			20:08																									
CCV 240-273335/113			20:12																									
CCB 240-273335/114			20:16																									
ZZZZZZ			20:21																									
ZZZZZZ			20:25																									
ZZZZZZ			20:29																									
ZZZZZZ			20:33																									
ZZZZZZ			20:37																									
ZZZZZZ			20:41																									
ZZZZZZ			20:46																									
ZZZZZZ			20:50																									
ZZZZZZ			20:53																									
ZZZZZZ			20:58																									
CCV 240-273335/125			21:02																									
CCB 240-273335/126			21:06																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/04/2017 12:20 End Date: 04/05/2017 05:14

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			21:10																										
ZZZZZZ			21:15																										
ZZZZZZ			21:19																										
ZZZZZZ			21:23																										
ZZZZZZ			21:27																										
ZZZZZZ			21:31																										
ZZZZZZ			21:35																										
ZZZZZZ			21:39																										
ZZZZZZ			21:43																										
ZZZZZZ			21:47																										
CCV 240-273335/137			21:51																										
CCB 240-273335/138			21:56																										
ZZZZZZ			22:00																										
ZZZZZZ			22:04																										
ZZZZZZ			22:08																										
ZZZZZZ			22:13																										
ZZZZZZ			22:17																										
ZZZZZZ			22:21																										
ZZZZZZ			22:25																										
ZZZZZZ			22:29																										
ZZZZZZ			22:33																										
ZZZZZZ			22:38																										
CCV 240-273335/149			22:42																										
CCB 240-273335/150			22:46																										
ZZZZZZ			22:50																										
ZZZZZZ			22:54																										
ZZZZZZ			22:58																										
ZZZZZZ			23:02																										
ZZZZZZ			23:06																										
ZZZZZZ			23:10																										
ZZZZZZ			23:14																										
ZZZZZZ			23:18																										
ZZZZZZ			23:23																										
ZZZZZZ			23:27																										
CCV 240-273335/161			23:31																										
CCB 240-273335/162			23:35																										
ZZZZZZ			23:39																										
ZZZZZZ			23:44																										
ZZZZZZ			23:48																										
ICSA 240-273335/166			23:52																										
ICSAB 240-273335/167			23:56																										
ZZZZZZ			00:01																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/04/2017 12:20 End Date: 04/05/2017 05:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			00:05																											
ZZZZZZ			00:09																											
ZZZZZZ			00:13																											
ZZZZZZ			00:18																											
ZZZZZZ			00:22																											
ZZZZZZ			00:26																											
CCV 240-273335/175			00:30																											
CCB 240-273335/176			00:35																											
ZZZZZZ			00:39																											
ZZZZZZ			00:43																											
ZZZZZZ			00:47																											
ZZZZZZ			00:52																											
ZZZZZZ			00:56																											
ZZZZZZ			01:00																											
ZZZZZZ			01:04																											
ZZZZZZ			01:08																											
ZZZZZZ			01:12																											
ZZZZZZ			01:16																											
CCV 240-273335/187			01:20																											
CCB 240-273335/188			01:24																											
ZZZZZZ			01:28																											
ZZZZZZ			01:33																											
ZZZZZZ			01:37																											
ZZZZZZ			01:41																											
ZZZZZZ			01:45																											
ZZZZZZ			01:49																											
ZZZZZZ			01:54																											
ZZZZZZ			01:58																											
ZZZZZZ			02:02																											
ZZZZZZ			02:06																											
CCV 240-273335/199			02:10																											
CCB 240-273335/200			02:15																											
ZZZZZZ			02:19																											
ZZZZZZ			02:23																											
ZZZZZZ			02:27																											
ZZZZZZ			02:31																											
ZZZZZZ			02:36																											
ZZZZZZ			02:40																											
ZZZZZZ			02:44																											
ZZZZZZ			02:48																											
ZZZZZZ			02:52																											
ZZZZZZ			02:57																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/04/2017 12:20 End Date: 04/05/2017 05:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
CCV 240-273335/211			03:01																											
CCB 240-273335/212			03:05																											
ZZZZZZ			03:09																											
ZZZZZZ			03:13																											
ZZZZZZ			03:17																											
ZZZZZZ			03:22																											
ZZZZZZ			03:26																											
ZZZZZZ			03:30																											
ZZZZZZ			03:34																											
ZZZZZZ			03:38																											
ZZZZZZ			03:42																											
ZZZZZZ			03:46																											
CCV 240-273335/223			03:50																											
CCB 240-273335/224			03:54																											
ZZZZZZ			03:59																											
ZZZZZZ			04:03																											
ZZZZZZ			04:07																											
ZZZZZZ			04:11																											
ZZZZZZ			04:15																											
ZZZZZZ			04:20																											
ZZZZZZ			04:24																											
ZZZZZZ			04:28																											
ZZZZZZ			04:32																											
ZZZZZZ			04:36																											
CCV 240-273335/235			04:41																											
CCB 240-273335/236			04:45																											
ZZZZZZ			04:49																											
ZZZZZZ			04:53																											
ZZZZZZ			04:57																											
ZZZZZZ			05:02																											
ZZZZZZ			05:06																											
CCV 240-273335/242			05:10																											
CCB 240-273335/243			05:14																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/05/2017 11:05 End Date: 04/05/2017 23:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Sb	Zn																								
ZZZZZZ			11:05																										
ICIS 240-273538/2			11:09	X	X																								
STD1 240-273538/3 IC	1		11:14	X	X																								
STD2 240-273538/4 IC	1		11:18	X	X																								
STD3 240-273538/5 IC	1		11:22	X	X																								
STD4 240-273538/6 IC	1		11:26	X	X																								
ICV 240-273538/7	1		11:31	X	X																								
ICB 240-273538/8	1		11:35	X	X																								
ICVL 240-273538/9	1		11:39	X	X																								
ICSA 240-273538/10	1		11:43	X	X																								
ICSAB 240-273538/11	1		11:47	X	X																								
CCV 240-273538/12			11:52																										
CCB 240-273538/13			11:56																										
CCV 240-273538/14			12:05																										
CCB 240-273538/15			12:09																										
ZZZZZZ			12:13																										
ZZZZZZ			12:17																										
ZZZZZZ			12:21																										
ZZZZZZ			12:25																										
ZZZZZZ			12:30																										
CCV 240-273538/21	1		12:34	X	X																								
CCB 240-273538/22	1		12:38	X	X																								
MB 240-272983/1-A	1	R	12:43	X																									
LCS 240-272983/2-A	1	R	12:48	X																									
ZZZZZZ			12:52																										
ZZZZZZ			12:56																										
ZZZZZZ			13:00																										
ZZZZZZ			13:04																										
ZZZZZZ			13:09																										
ZZZZZZ			13:12																										
ZZZZZZ			13:16																										
CCV 240-273538/32	1		13:20	X	X																								
CCB 240-273538/33	1		13:25	X	X																								
CCVL 240-273538/34			13:29																										
ZZZZZZ			13:33																										
240-77566-1	1	R	13:37	X																									
240-77566-4	1	R	13:42	X																									
240-77566-4	5	R	13:46		X																								
CCV 240-273538/39	1		13:50	X	X																								
CCB 240-273538/40	1		13:54	X	X																								
CCVL 240-273538/41	1		13:58	X	X																								
ZZZZZZ			14:03																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/05/2017 11:05 End Date: 04/05/2017 23:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				Sb	Zn																							
ZZZZZZ			14:07																									
ZZZZZZ			14:11																									
ZZZZZZ			14:15																									
ZZZZZZ			14:19																									
ZZZZZZ			14:23																									
ZZZZZZ			14:27																									
ZZZZZZ			14:31																									
ZZZZZZ			14:35																									
CCV 240-273538/51			14:39																									
CCB 240-273538/52			14:44																									
ZZZZZZ			14:48																									
ZZZZZZ			14:52																									
ZZZZZZ			14:56																									
ZZZZZZ			15:00																									
ZZZZZZ			15:04																									
ZZZZZZ			15:08																									
ZZZZZZ			15:12																									
ZZZZZZ			15:16																									
ZZZZZZ			15:21																									
ZZZZZZ			15:25																									
CCV 240-273538/63			15:29																									
CCB 240-273538/64			15:33																									
ZZZZZZ			15:38																									
ZZZZZZ			15:42																									
ZZZZZZ			15:46																									
ZZZZZZ			15:50																									
ZZZZZZ			15:54																									
ZZZZZZ			15:58																									
ZZZZZZ			16:03																									
ZZZZZZ			16:07																									
ZZZZZZ			16:11																									
ZZZZZZ			16:15																									
CCV 240-273538/75			16:20																									
CCB 240-273538/76			16:24																									
ZZZZZZ			16:28																									
ZZZZZZ			16:32																									
ZZZZZZ			16:36																									
ZZZZZZ			16:41																									
ZZZZZZ			16:45																									
ZZZZZZ			16:49																									
ZZZZZZ			16:53																									
ZZZZZZ			16:57																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/05/2017 11:05 End Date: 04/05/2017 23:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				Sb	Zn																							
ZZZZZZ			17:01																									
ZZZZZZ			17:05																									
CCV 240-273538/87			17:10																									
CCB 240-273538/88			17:14																									
ZZZZZZ			17:18																									
ZZZZZZ			17:22																									
ZZZZZZ			17:26																									
ZZZZZZ			17:30																									
ZZZZZZ			17:34																									
ZZZZZZ			17:38																									
ZZZZZZ			17:43																									
ZZZZZZ			17:47																									
ZZZZZZ			17:51																									
ZZZZZZ			17:55																									
CCV 240-273538/99			17:59																									
CCB 240-273538/100			18:03																									
ZZZZZZ			18:08																									
ZZZZZZ			18:12																									
ZZZZZZ			18:16																									
ZZZZZZ			18:20																									
ZZZZZZ			18:24																									
ZZZZZZ			18:29																									
ZZZZZZ			18:33																									
ZZZZZZ			18:37																									
ZZZZZZ			18:41																									
ZZZZZZ			18:45																									
CCV 240-273538/111			18:50																									
CCB 240-273538/112			18:54																									
ZZZZZZ			18:58																									
ZZZZZZ			19:02																									
ZZZZZZ			19:06																									
ZZZZZZ			19:11																									
ZZZZZZ			19:15																									
ZZZZZZ			19:19																									
ZZZZZZ			19:23																									
ZZZZZZ			19:27																									
ZZZZZZ			19:32																									
ZZZZZZ			19:36																									
CCV 240-273538/123			19:40																									
CCB 240-273538/124			19:44																									
ZZZZZZ			19:48																									
ZZZZZZ			19:52																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/05/2017 11:05 End Date: 04/05/2017 23:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				Sb	Zn																							
ZZZZZZ			19:56																									
ZZZZZZ			20:00																									
ZZZZZZ			20:05																									
ZZZZZZ			20:09																									
ZZZZZZ			20:13																									
ZZZZZZ			20:17																									
ZZZZZZ			20:22																									
ZZZZZZ			20:26																									
CCV 240-273538/135			20:30																									
CCB 240-273538/136			20:34																									
ZZZZZZ			20:38																									
ZZZZZZ			20:43																									
ZZZZZZ			20:47																									
CCV 240-273538/140			20:51																									
CCB 240-273538/141			20:55																									
ZZZZZZ			20:59																									
ZZZZZZ			21:04																									
ZZZZZZ			21:08																									
ZZZZZZ			21:12																									
ZZZZZZ			21:16																									
ZZZZZZ			21:21																									
ZZZZZZ			21:25																									
ZZZZZZ			21:29																									
ZZZZZZ			21:33																									
ZZZZZZ			21:37																									
CCV 240-273538/152			21:42																									
CCB 240-273538/153			21:46																									
ZZZZZZ			21:50																									
ZZZZZZ			21:54																									
ZZZZZZ			21:59																									
ZZZZZZ			22:03																									
ZZZZZZ			22:07																									
ZZZZZZ			22:11																									
ZZZZZZ			22:15																									
ZZZZZZ			22:19																									
ZZZZZZ			22:23																									
ZZZZZZ			22:27																									
CCV 240-273538/164			22:31																									
CCB 240-273538/165			22:36																									
ZZZZZZ			22:40																									
ZZZZZZ			22:44																									
ZZZZZZ			22:48																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/05/2017 11:05 End Date: 04/05/2017 23:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				Sb	Zn																							
ZZZZZZ			22:53																									
ZZZZZZ			22:57																									
CCV 240-273538/171			23:01																									
CCB 240-273538/172			23:05																									
ZZZZZZ			23:10																									
CCV 240-273538/174			23:14																									
CCB 240-273538/175			23:18																									

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 04/03/2017 12:57 End Date: 04/03/2017 17:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-273083/1-A			12:57	X																								
IC 240-273083/2-A			12:59	X																								
IC 240-273083/3-A			13:00	X																								
IC 240-273083/4-A			13:02	X																								
IC 240-273083/5-A			13:04	X																								
IC 240-273083/6-A			13:06	X																								
ICV 240-273083/7-A	1		13:14	X																								
ICB 240-273083/8-A	1		13:16	X																								
CRA 240-273083/9-A	1		13:18	X																								
CCV 240-273083/10-A			13:20																									
CCB 240-273083/11-A			13:22																									
ZZZZZZ			13:24																									
ZZZZZZ			13:26																									
ZZZZZZ			13:28																									
ZZZZZZ			13:30																									
ZZZZZZ			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:37																									
ZZZZZZ			13:39																									
ZZZZZZ			13:41																									
ZZZZZZ			13:43																									
CCV 240-273083/10-A			13:45																									
CCB 240-273083/11-A			13:46																									
ZZZZZZ			13:49																									
ZZZZZZ			13:51																									
ZZZZZZ			13:53																									
ZZZZZZ			13:55																									
ZZZZZZ			13:56																									
ZZZZZZ			13:58																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
CCV 240-273083/10-A			14:08																									
CCB 240-273083/11-A			14:10																									
ZZZZZZ			14:12																									
CCV 240-273083/10-A			14:16																									
CCB 240-273083/11-A			14:18																									
ZZZZZZ			14:20																									
ZZZZZZ			14:22																									
CCV 240-273083/10-A			14:24																									
CCV 240-273083/10-A	1		14:26	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 04/03/2017 12:57 End Date: 04/03/2017 17:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-273083/11-A	1		14:28	X																								
MB 240-272774/1-A	1	T	14:31	X																								
LCS 240-272774/2-A	1	T	14:32	X																								
ZZZZZZ			14:34																									
240-77417-N-3-G MS	1	T	14:37	X																								
240-77417-N-3-H MSD	1	T	14:39	X																								
240-77416-1	1	T	14:41	X																								
ZZZZZZ			14:43																									
ZZZZZZ			14:44																									
ZZZZZZ			14:46																									
ZZZZZZ			14:48																									
CCV 240-273083/10-A	1		14:50	X																								
CCB 240-273083/11-A	1		14:52	X																								
ZZZZZZ			14:54																									
ZZZZZZ			14:56																									
ZZZZZZ			14:58																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
ZZZZZZ			15:06																									
ZZZZZZ			15:08																									
ZZZZZZ			15:10																									
ZZZZZZ			15:12																									
CCV 240-273083/10-A			15:14																									
CCB 240-273083/11-A			15:16																									
ZZZZZZ			15:18																									
ZZZZZZ			15:20																									
ZZZZZZ			15:22																									
ZZZZZZ			15:24																									
ZZZZZZ			15:26																									
ZZZZZZ			15:28																									
ZZZZZZ			15:30																									
ZZZZZZ			15:32																									
ZZZZZZ			15:34																									
ZZZZZZ			15:36																									
CCV 240-273083/10-A			15:38																									
CCB 240-273083/11-A			15:40																									
ZZZZZZ			15:42																									
ZZZZZZ			15:44																									
ZZZZZZ			15:46																									
ZZZZZZ			15:48																									
ZZZZZZ			15:50																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 04/03/2017 12:57 End Date: 04/03/2017 17:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			15:52																									
ZZZZZZ			15:53																									
ZZZZZZ			15:55																									
ZZZZZZ			15:57																									
ZZZZZZ			15:59																									
CCV 240-273083/10-A			16:01																									
CCB 240-273083/11-A			16:03																									
ZZZZZZ			16:05																									
ZZZZZZ			16:07																									
ZZZZZZ			16:09																									
ZZZZZZ			16:11																									
ZZZZZZ			16:13																									
ZZZZZZ			16:15																									
ZZZZZZ			16:17																									
ZZZZZZ			16:19																									
ZZZZZZ			16:21																									
ZZZZZZ			16:24																									
CCV 240-273083/10-A			16:26																									
CCB 240-273083/11-A			16:28																									
ZZZZZZ			16:30																									
ZZZZZZ			16:32																									
ZZZZZZ			16:34																									
ZZZZZZ			16:36																									
ZZZZZZ			16:38																									
ZZZZZZ			16:40																									
ZZZZZZ			16:41																									
ZZZZZZ			16:44																									
ZZZZZZ			16:46																									
ZZZZZZ			16:48																									
CCV 240-273083/10-A			16:50																									
CCB 240-273083/11-A			16:51																									
ZZZZZZ			16:54																									
ZZZZZZ			16:56																									
ZZZZZZ			16:58																									
ZZZZZZ			17:00																									
ZZZZZZ			17:02																									
ZZZZZZ			17:03																									
ZZZZZZ			17:05																									
ZZZZZZ			17:07																									
ZZZZZZ			17:09																									
ZZZZZZ			17:11																									
CCV 240-273083/10-A			17:13																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 04/03/2017 12:57 End Date: 04/03/2017 17:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-273083/11-A			17:15																									
ZZZZZZ			17:17																									
ZZZZZZ			17:19																									
ZZZZZZ			17:21																									
ZZZZZZ			17:23																									
ZZZZZZ			17:25																									
ZZZZZZ			17:27																									
CCV 240-273083/10-A			17:29																									
CCB 240-273083/11-A			17:31																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 04/04/2017 08:23 End Date: 04/04/2017 11:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-273083/1-A			08:23	X																								
IC 240-273083/2-A			08:25	X																								
IC 240-273083/3-A			08:27	X																								
IC 240-273083/4-A			08:29	X																								
IC 240-273083/5-A			08:31	X																								
IC 240-273083/6-A			08:33	X																								
ICV 240-273083/7-A	1		08:48	X																								
ICB 240-273083/8-A	1		08:50	X																								
CRA 240-273083/9-A	1		08:53	X																								
CCV 240-273083/10-A			08:54																									
CCB 240-273083/11-A			08:56																									
ZZZZZZ			08:59																									
ZZZZZZ			09:01																									
ZZZZZZ			09:03																									
ZZZZZZ			09:04																									
ZZZZZZ			09:05																									
ZZZZZZ			09:07																									
ZZZZZZ			09:09																									
ZZZZZZ			09:11																									
ZZZZZZ			09:13																									
ZZZZZZ			09:14																									
CCV 240-273083/10-A	1		09:17	X																								
CCB 240-273083/11-A	1		09:19	X																								
MB 240-272984/1-A	1	T	09:21	X																								
LCS 240-272984/2-A	1	T	09:23	X																								
ZZZZZZ			09:25																									
240-77471-D-3-E MS	1	T	09:27	X																								
240-77471-D-3-F MSD	1	T	09:29	X																								
ZZZZZZ			09:31																									
ZZZZZZ			09:33																									
ZZZZZZ			09:35																									
ZZZZZZ			09:37																									
ZZZZZZ			09:39																									
CCV 240-273083/10-A	1		09:41	X																								
CCB 240-273083/11-A	1		09:43	X																								
ZZZZZZ			09:45																									
ZZZZZZ			09:47																									
ZZZZZZ			09:49																									
240-77566-1	1	T	09:51	X																								
240-77566-2	1	T	09:53	X																								
240-77566-3	1	T	09:54	X																								
240-77566-4	1	T	09:56	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 04/04/2017 08:23 End Date: 04/04/2017 11:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
240-77566-8	1	T	09:58	X																								
ZZZZZZ			10:00																									
ZZZZZZ			10:02																									
CCV 240-273083/10-A	1		10:04	X																								
CCB 240-273083/11-A	1		10:06	X																								
ZZZZZZ			10:08																									
ZZZZZZ			10:10																									
ZZZZZZ			10:13																									
ZZZZZZ			10:14																									
ZZZZZZ			10:16																									
ZZZZZZ			10:19																									
ZZZZZZ			10:21																									
ZZZZZZ			10:23																									
ZZZZZZ			10:25																									
ZZZZZZ			10:27																									
CCV 240-273083/10-A			10:29																									
CCB 240-273083/11-A			10:31																									
ZZZZZZ			10:33																									
ZZZZZZ			10:35																									
ZZZZZZ			10:37																									
ZZZZZZ			10:39																									
ZZZZZZ			10:41																									
ZZZZZZ			10:43																									
ZZZZZZ			10:45																									
ZZZZZZ			10:47																									
ZZZZZZ			10:49																									
ZZZZZZ			10:51																									
CCV 240-273083/10-A			10:53																									
CCB 240-273083/11-A			10:55																									
ZZZZZZ			10:57																									
ZZZZZZ			10:59																									
ZZZZZZ			11:01																									
ZZZZZZ			11:03																									
ZZZZZZ			11:05																									
ZZZZZZ			11:07																									
ZZZZZZ			11:09																									
ZZZZZZ			11:11																									
ZZZZZZ			11:13																									
ZZZZZZ			11:15																									
CCV 240-273083/10-A			11:17																									
CCB 240-273083/11-A			11:19																									
ZZZZZZ			11:21																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 04/04/2017 08:23 End Date: 04/04/2017 11:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			11:23																									
ZZZZZZ			11:25																									
ZZZZZZ			11:27																									
ZZZZZZ			11:29																									
ZZZZZZ			11:31																									
ZZZZZZ			11:33																									
ZZZZZZ			11:35																									
ZZZZZZ			11:37																									
ZZZZZZ			11:39																									
CCV 240-273083/10-A			11:40																									
CCB 240-273083/11-A			11:42																									
ZZZZZZ			11:45																									
ZZZZZZ			11:47																									
ZZZZZZ			11:49																									
ZZZZZZ			11:51																									
ZZZZZZ			11:52																									
CCV 240-273083/10-A			11:54																									
CCB 240-273083/11-A			11:56																									

Prep Types:
T = Total/NA

FORM XIII-IN

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272772 Batch Start Date: 03/31/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 03/31/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00069	MTICP1 00062	MTICP2A 00070	MTTMHCL 00150
MB 240-272772/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-272772/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-77417-N-3 MS		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-77417-N-3 MSD		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-77416-P-1	MRC-MW37A-032917	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-77416-P-2	MRC-MW37B-032917	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00113					
MB 240-272772/1		3005A, 6010C		1 mL					
LCS 240-272772/2		3005A, 6010C		1 mL					
240-77417-N-3 MS		3005A, 6010C	R	1 mL					
240-77417-N-3 MSD		3005A, 6010C	R	1 mL					
240-77416-P-1	MRC-MW37A-032917	3005A, 6010C	R	1 mL					
240-77416-P-2	MRC-MW37B-032917	3005A, 6010C	R	1 mL					

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB4
Pipette ID	MP1-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273377 Batch Start Date: 04/05/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 04/05/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00069	MTICP1 00062	MTICP2A 00070	MTTMHCL 00150
MB 240-273377/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-273377/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-77618-G-2 MS		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-77618-G-2 MSD		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-77601-N-2	MRC-MW21B-040317	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00114
MB 240-273377/1		3005A, 6010C		1 mL
LCS 240-273377/2		3005A, 6010C		1 mL
240-77618-G-2 MS		3005A, 6010C	R	1 mL
240-77618-G-2 MSD		3005A, 6010C	R	1 mL
240-77601-N-2	MRC-MW21B-040317	3005A, 6010C	R	1 mL

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB2
Pipette ID	MP1-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272772 Batch Start Date: 03/31/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 03/31/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00028	MTICPMSA 00030	MTICPMSB 00030	MTTMHCL 00150
MB 240-272772/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-272772/3		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77417-N-3 MS		3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77417-N-3 MSD		3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77416-P-1	MRC-MW37A-032917	3005A, 6020A	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00113					
MB 240-272772/1		3005A, 6020A		1 mL					
LCS 240-272772/3		3005A, 6020A		1 mL					
240-77417-N-3 MS		3005A, 6020A	R	1 mL					
240-77417-N-3 MSD		3005A, 6020A	R	1 mL					
240-77416-P-1	MRC-MW37A-032917	3005A, 6020A	R	1 mL					

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB4
Pipette ID	MP1-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272983 Batch Start Date: 04/03/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 04/03/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00028	MTICPMSA 00030	MTICPMSB 00030	MTTMHCL 00150
MB 240-272983/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-272983/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77471-D-3 MS		3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77471-D-3 MSD		3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77566-F-1	MRC-MW14A-033017	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-77566-F-2	MRC-MW14C-033017	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-77566-D-3	MRC-MW106B/C-033017	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-77566-D-4	MRC-MW107B/C-033017	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-77566-D-8	MRC-DUP05-033017	3005A, 6020A	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00113
MB 240-272983/1		3005A, 6020A		1 mL
LCS 240-272983/2		3005A, 6020A		1 mL
240-77471-D-3 MS		3005A, 6020A	R	1 mL
240-77471-D-3 MSD		3005A, 6020A	R	1 mL
240-77566-F-1	MRC-MW14A-033017	3005A, 6020A	R	1 mL
240-77566-F-2	MRC-MW14C-033017	3005A, 6020A	R	1 mL
240-77566-D-3	MRC-MW106B/C-033017	3005A, 6020A	R	1 mL
240-77566-D-4	MRC-MW107B/C-033017	3005A, 6020A	R	1 mL
240-77566-D-8	MRC-DUP05-033017	3005A, 6020A	R	1 mL

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB1
Pipette ID	MP3
Digestion Tube/Cup ID	1610138

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272983 Batch Start Date: 04/03/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 04/03/17 22:00

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272774 Batch Start Date: 03/31/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 03/31/17 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00040	MTHGCALW 01466	MTKMN04W 00127
MB 240-272774/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-272774/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-77417-N-3 MS		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77417-N-3 MSD		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77416-P-1	MRC-MW37A-032917	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00113					
MB 240-272774/1		7470A, 7470A		1.25 mL					
LCS 240-272774/2		7470A, 7470A		1.25 mL					
240-77417-N-3 MS		7470A, 7470A	T	1.25 mL					
240-77417-N-3 MSD		7470A, 7470A	T	1.25 mL					
240-77416-P-1	MRC-MW37A-032917	7470A, 7470A	T	1.25 mL					

Batch Notes	
Batch Comment	take out temps within range
Hot Block ID	C2
Pipette ID	MP2-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272984 Batch Start Date: 04/03/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 04/03/17 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00040	MTHGCALW 01468	MTKMN04W 00127
MB 240-272984/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-272984/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-77471-D-3 MS		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77471-D-3 MSD		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77566-F-1	MRC-MW14A-033017	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-77566-F-2	MRC-MW14C-033017	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-77566-D-3	MRC-MW106B/C-033017	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-77566-D-4	MRC-MW107B/C-033017	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-77566-D-8	MRC-DUP05-033017	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00113					
MB 240-272984/1		7470A, 7470A		1.25 mL					
LCS 240-272984/2		7470A, 7470A		1.25 mL					
240-77471-D-3 MS		7470A, 7470A	T	1.25 mL					
240-77471-D-3 MSD		7470A, 7470A	T	1.25 mL					
240-77566-F-1	MRC-MW14A-033017	7470A, 7470A	T	1.25 mL					
240-77566-F-2	MRC-MW14C-033017	7470A, 7470A	T	1.25 mL					
240-77566-D-3	MRC-MW106B/C-033017	7470A, 7470A	T	1.25 mL					
240-77566-D-4	MRC-MW107B/C-033017	7470A, 7470A	T	1.25 mL					
240-77566-D-8	MRC-DUP05-033017	7470A, 7470A	T	1.25 mL					

Batch Notes	
Batch Comment	take out temps within range
Hot Block ID	C1
Pipette ID	MP2-MP3
Digestion Tube/Cup ID	1610138

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272984 Batch Start Date: 04/03/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 04/03/17 16:00

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273083 Batch Start Date: 04/03/17 08:55 Batch Analyst: Heakin, David

Batch Method: 7470A Batch End Date: 04/03/17 10:55

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00040	MTHGCALW 01468	MTHgICV_00001 00155
ICV 240-273083/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-273083/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-273083/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-273083/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-273083/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00127	MTTMHNO3 00114				
ICV 240-273083/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-273083/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-273083/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-273083/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-273083/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Hot Block ID	A2
Pipette ID	A6, MP1, MP2
Digestion Tube/Cup ID	1509104

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: LKG Batch Start Date: 03/28/2017

Reporting Units: mg/L Analytical Batch No.: 272283

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	21:01	Chloride	52.6	50.0	105	90-110		WCICLCS_00603
			Sulfate	53.0	50.0	106	90-110		WCICLCS_00603
11	ICB	21:21	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: LKG Batch Start Date: 03/28/2017

Reporting Units: mg/L Analytical Batch No.: 272284

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	21:01	Nitrite as N	2.56	2.50	102	90-110		WCICLCS_00603
			Nitrate as N	2.69	2.50	108	90-110		WCICLCS_00603
11	ICB	21:21	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: LKG Batch Start Date: 03/30/2017

Reporting Units: mg/L Analytical Batch No.: 272628

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:04	Chloride	52.1	50.0	104	90-110		WCICCCV_00765
			Sulfate	53.2	50.0	106	90-110		WCICCCV_00765
2	CCB	10:24	Chloride	0.41				U	
			Sulfate	0.13				U	
13	CCV	14:48	Chloride	52.3	50.0	105	90-110		WCICCCV_00765
			Sulfate	53.5	50.0	107	90-110		WCICCCV_00765
14	CCB	15:08	Chloride	0.41				U	
			Sulfate	0.13				U	
25	CCV	18:49	Chloride	52.2	50.0	104	90-110		WCICCCV_00765
			Sulfate	54.0	50.0	108	90-110		WCICCCV_00765
26	CCB	19:09	Chloride	0.41				U	
			Sulfate	0.13				U	
30	CCV	20:29	Chloride	52.0	50.0	104	90-110		WCICCCV_00765
			Sulfate	53.2	50.0	106	90-110		WCICCCV_00765
31	CCB	20:49	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: LKG Batch Start Date: 03/30/2017

Reporting Units: mg/L Analytical Batch No.: 272629

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:04	Nitrite as N	2.59	2.50	104	90-110		WCICCCV_00765
			Nitrate as N	2.64	2.50	106	90-110		WCICCCV_00765
2	CCB	10:24	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
13	CCV	14:48	Nitrite as N	2.60	2.50	104	90-110		WCICCCV_00765
			Nitrate as N	2.65	2.50	106	90-110		WCICCCV_00765
14	CCB	15:08	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
25	CCV	18:49	Nitrite as N	2.59	2.50	103	90-110		WCICCCV_00765
			Nitrate as N	2.65	2.50	106	90-110		WCICCCV_00765
26	CCB	19:09	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
30	CCV	20:29	Nitrite as N	2.58	2.50	103	90-110		WCICCCV_00765
			Nitrate as N	2.64	2.50	105	90-110		WCICCCV_00765
31	CCB	20:49	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: LKG Batch Start Date: 04/03/2017

Reporting Units: mg/L Analytical Batch No.: 272988

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:45	Sulfate	53.8	50.0	108	90-110		WCICCCV_00765
2	CCB	11:05	Sulfate	0.13				U	
13	CCV	14:46	Sulfate	53.7	50.0	107	90-110		WCICCCV_00765
14	CCB	15:06	Sulfate	0.13				U	
25	CCV	18:47	Sulfate	53.6	50.0	107	90-110		WCICCCV_00765
26	CCB	19:07	Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: LKG Batch Start Date: 04/04/2017

Reporting Units: mg/L Analytical Batch No.: 273270

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	16:31	Chloride	52.1	50.0	104	90-110		WCICCCV_00765
			Sulfate	53.4	50.0	107	90-110		WCICCCV_00765
2	CCB	16:51	Chloride	0.41				U	
			Sulfate	0.13				U	
13	CCV	20:32	Chloride	51.2	50.0	102	90-110		WCICCCV_00765
			Sulfate	52.5	50.0	105	90-110		WCICCCV_00765
14	CCB	20:52	Chloride	0.41				U	
			Sulfate	0.13				U	
23	CCV	23:53	Chloride	50.9	50.0	102	90-110		WCICCCV_00765
			Sulfate	52.3	50.0	105	90-110		WCICCCV_00765
24	CCB	00:13	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: LKG Batch Start Date: 04/04/2017

Reporting Units: mg/L Analytical Batch No.: 273271

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	16:31	Nitrite as N	2.57	2.50	103	90-110		WCICCCV_00765
			Nitrate as N	2.65	2.50	106	90-110		WCICCCV_00765
2	CCB	16:51	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
13	CCV	20:32	Nitrite as N	2.52	2.50	101	90-110		WCICCCV_00765
			Nitrate as N	2.61	2.50	105	90-110		WCICCCV_00765
14	CCB	20:52	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
23	CCV	23:53	Nitrite as N	2.52	2.50	101	90-110		WCICCCV_00765
			Nitrate as N	2.60	2.50	104	90-110		WCICCCV_00765
24	CCB	00:13	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: LCN Batch Start Date: 03/30/2017

Reporting Units: mg/L Analytical Batch No.: 272692

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	19:05	Orthophosphate as P	0.513	0.500	103	90-110		WCPhos 1ppm_00023
2	CCB	19:05	Orthophosphate as P	0.0050				U	
10	CCV	19:05	Orthophosphate as P	0.513	0.500	103	90-110		WCPhos 1ppm_00023
11	CCB	19:05	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: TPH Batch Start Date: 04/04/2017

Reporting Units: mg/L Analytical Batch No.: 273317

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
2	CCVL	12:49	Dissolved Organic Carbon	4.93	5.00	99	90-110		WC TOC CCVL_00147
3	CCB	12:56	Dissolved Organic Carbon	0.080				U	
10	CCVL	14:33	Dissolved Organic Carbon	4.78	5.00	96	90-110		WC TOC CCVL_00147
11	CCB	14:41	Dissolved Organic Carbon	0.080				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: TPH Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274401

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
2	CCVL	08:26	Dissolved Organic Carbon	5.27	5.00	105	90-110		WC TOC CCVL_00148
3	CCB	08:33	Dissolved Organic Carbon	0.193				J	
9	CCVL	09:43	Dissolved Organic Carbon	5.23	5.00	105	90-110		WC TOC CCVL_00148
10	CCB	09:52	Dissolved Organic Carbon	0.080				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: JWW Batch Start Date: 03/14/2017

Reporting Units: mg/L Analytical Batch No.: 270540

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
11	ICV	13:18	Orthophosphate as P	0.551	0.509	108	90-110		WCWIBBYNUTRIE_00072
12	ICB	13:22	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Analyst: LCN Batch Start Date: 04/04/2017

Reporting Units: mg/L Analytical Batch No.: 273288

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:18	Orthophosphate as P	0.475	0.500	95	90-110		WCPhos 1ppm_00023
2	CCB	15:18	Orthophosphate as P	0.0050				U	
8	CCV	15:18	Orthophosphate as P	0.475	0.500	95	90-110		WCPhos 1ppm_00023
9	CCB	15:19	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 273095	Date: 04/03/2017 10:24						
2320B-1997	MB 240-273095/5	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 273991	Date: 04/07/2017 10:35						
2320B-1997	MB 240-273991/3	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 272628	Date: 03/30/2017 10:44						
300.0	MB 240-272628/3	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-272628/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 272629	Date: 03/30/2017 10:44						
300.0	MB 240-272629/3	Nitrite as N	0.038	U	mg/L	0.10	1
300.0	MB 240-272629/3	Nitrate as N	0.035	U	mg/L	0.10	1
Batch ID: 272628	Date: 03/30/2017 19:29						
300.0	MB 240-272628/27	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-272628/27	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 272629	Date: 03/30/2017 19:29						
300.0	MB 240-272629/27	Nitrite as N	0.038	U	mg/L	0.10	1
300.0	MB 240-272629/27	Nitrate as N	0.035	U	mg/L	0.10	1
Batch ID: 272988	Date: 04/03/2017 11:25						
300.0	MB 240-272988/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 273270	Date: 04/04/2017 17:11						
300.0	MB 240-273270/3	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-273270/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 273271	Date: 04/04/2017 17:11						
300.0	MB 240-273271/3	Nitrite as N	0.038	U	mg/L	0.10	1
300.0	MB 240-273271/3	Nitrate as N	0.035	U	mg/L	0.10	1
Batch ID: 273195	Date: 04/04/2017 13:10	Prep Batch: 273182	Date: 04/04/2017 08:30				
4500 NH3 C-1997	MB 240-273182/1-A	Ammonia	0.87	U	mg/L	2.0	1
Batch ID: 272692	Date: 03/30/2017 19:05						
4500 P E-1999	MB 240-272692/3	Orthophosphate as P	0.0050	U	mg/L	0.10	1
Batch ID: 273317	Date: 04/04/2017 13:05						
9060	MB 240-273317/4	Dissolved Organic Carbon	0.080	U	mg/L	1.0	1
Batch ID: 274401	Date: 04/12/2017 08:42						
9060	MB 240-274401/4	Dissolved Organic Carbon	0.155	J	mg/L	1.0	1
Batch ID: 273230	Date: 04/04/2017 11:49						
SM 2540C	MB 240-273230/1	Total Dissolved Solids	7.4	U	mg/L	10	1
Batch ID: 273380	Date: 04/05/2017 10:05						
SM 2540C	MB 240-273380/1	Total Dissolved Solids	7.4	U	mg/L	10	1
Batch ID: 273288	Date: 04/04/2017 15:18						
SM 4500 P E	MB 240-273288/3	Orthophosphate as P	0.0050	U	mg/L	0.10	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 272628 Date: 03/30/2017 15:48											
300.0	240-77403-A-2	Chloride	30		mg/L						
300.0	240-77403-A-2 MS	Chloride	83.0		mg/L	50.0	106	80-120			
300.0	240-77403-A-2	Sulfate	43		mg/L						
300.0	240-77403-A-2 MS	Sulfate	96.8		mg/L	50.0	108	80-120			
Batch ID: 272629 Date: 03/30/2017 15:48											
300.0	240-77403-A-2	Nitrite as N	0.038	U	mg/L						
300.0	240-77403-A-2 MS	Nitrite as N	2.79		mg/L	2.50	112	80-120			
300.0	240-77403-A-2	Nitrate as N	6.4		mg/L						
300.0	240-77403-A-2 MS	Nitrate as N	8.92		mg/L	2.50	103	80-120			
Batch ID: 273270 Date: 04/04/2017 21:32											
300.0	240-77601-2	Chloride	79		mg/L						
300.0	240-77601-2 MS	Chloride	126		mg/L	50.0	95	80-120			
300.0	240-77601-2	Sulfate	2.7		mg/L						
300.0	240-77601-2 MS	Sulfate	54.5		mg/L	50.0	104	80-120			
Batch ID: 273271 Date: 04/04/2017 21:32											
300.0	240-77601-2	Nitrite as N	0.038	U	mg/L						
300.0	240-77601-2 MS	Nitrite as N	2.57		mg/L	2.50	103	80-120			
300.0	240-77601-2	Nitrate as N	0.035	U	mg/L						
300.0	240-77601-2 MS	Nitrate as N	2.62		mg/L	2.50	105	80-120			
Batch ID: 273195 Date: 04/04/2017 13:24 Prep Batch: 273182 Date: 04/04/2017 08:30											
4500 NH3 C-1997	190-13140-A-1 -B	Ammonia	2.2		mg/L						
4500 NH3 C-1997	190-13140-A-1 -B MS	Ammonia	6.44		mg/L	4.00	105	67-127			
Batch ID: 272692 Date: 03/30/2017 19:05											
4500 P E-1999	240-77411-Q-1	Orthophosphate as P	0.11		mg/L						
4500 P E-1999	240-77411-Q-1 MS	Orthophosphate as P	0.646		mg/L	0.500	108	31-154			
Batch ID: 273317 Date: 04/04/2017 13:49											
9060	240-77416-1	Dissolved Organic Carbon	3.3		mg/L						
9060	240-77416-1 MS	Dissolved Organic Carbon	8.12		mg/L	5.00	96	65-134			
Batch ID: 274401 Date: 04/12/2017 09:27											
9060	240-77601-2	Dissolved Organic Carbon	0.42	J	mg/L						B
9060	240-77601-2 MS	Dissolved Organic Carbon	5.62		mg/L	5.00	104	65-134			
Batch ID: 273288 Date: 04/04/2017 15:18											

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
SM 4500 P E	240-77601-2	Orthophosphate as P	0.023	J	mg/L						
SM 4500 P E	240-77601-2 MS	Orthophosphate as P	0.535		mg/L	0.500	102	31-154			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 273270 Date: 04/04/2017 21:52											
300.0	240-77601-2 MSD	Chloride	128		mg/L	50.0	99	80-120	2	15	
300.0	240-77601-2 MSD	Sulfate	56.7		mg/L	50.0	108	80-120	4	15	
Batch ID: 273271 Date: 04/04/2017 21:52											
300.0	240-77601-2 MSD	Nitrite as N	2.66		mg/L	2.50	107	80-120	4	15	
300.0	240-77601-2 MSD	Nitrate as N	2.72		mg/L	2.50	109	80-120	4	15	
Batch ID: 273195 Date: 04/04/2017 13:27 Prep Batch: 273182 Date: 04/04/2017 08:30											
4500 NH3 C-1997	190-13140-A-1 -C MSD	Ammonia	6.16		mg/L	4.00	98	67-127	4	16	
Batch ID: 272692 Date: 03/30/2017 19:05											
4500 P E-1999	240-77411-Q-1 MSD	Orthophosphate as P	0.624		mg/L	0.500	103	31-154	4	11	
Batch ID: 273317 Date: 04/04/2017 13:57											
9060	240-77416-1 MSD	Dissolved Organic Carbon	8.23		mg/L	5.00	98	65-134	1	10	
Batch ID: 274401 Date: 04/12/2017 09:35											
9060	240-77601-2 MSD	Dissolved Organic Carbon	5.53		mg/L	5.00	102	65-134	2	10	
Batch ID: 273288 Date: 04/04/2017 15:18											
SM 4500 P E	240-77601-2 MSD	Orthophosphate as P	0.549		mg/L	0.500	105	31-154	3	11	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 273095	Date: 04/03/2017 13:17							
2320B-1997		240-77485-G-4	Alkalinity	220	mg/L			
2320B-1997		240-77485-G-4 DU	Alkalinity	224	mg/L	2	20	
Batch ID: 273991	Date: 04/07/2017 11:02							
2320B-1997		240-77621-E-1	Alkalinity	270	mg/L			
2320B-1997		240-77621-E-1 DU	Alkalinity	271	mg/L	0.4	20	
Batch ID: 273230	Date: 04/04/2017 11:49							
SM 2540C		240-77400-R-1	Total Dissolved Solids	400	mg/L			
SM 2540C		240-77400-R-1 DU	Total Dissolved Solids	401	mg/L	1	20	
Batch ID: 273230	Date: 04/04/2017 11:49							
SM 2540C		240-77411-Q-1	Total Dissolved Solids	1100	mg/L			
SM 2540C		240-77411-Q-1 DU	Total Dissolved Solids	1130	mg/L	0.5	20	
Batch ID: 273380	Date: 04/05/2017 10:05							
SM 2540C		240-77609-D-1	Total Dissolved Solids	370	mg/L			
SM 2540C		240-77609-D-1 DU	Total Dissolved Solids	381	mg/L	3	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 273095	Date: 04/03/2017 10:18										
						LCS Source: WCPHENOMINER_00016					
2320B-1997	LCS 240-273095/4	Alkalinity	318		mg/L	334	95	86-123			
Batch ID: 273991	Date: 04/07/2017 10:28										
						LCS Source: WCPHENOMINER_00016					
2320B-1997	LCS 240-273991/2	Alkalinity	324		mg/L	334	97	86-123			
Batch ID: 272628	Date: 03/30/2017 11:04										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-272628/4	Chloride	52.6		mg/L	50.0	105	90-110			
300.0	LCS 240-272628/4	Sulfate	53.3		mg/L	50.0	107	90-110			
Batch ID: 272629	Date: 03/30/2017 11:04										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-272629/4	Nitrite as N	2.55		mg/L	2.50	102	90-110			
300.0	LCS 240-272629/4	Nitrate as N	2.70		mg/L	2.50	108	90-110			
Batch ID: 272628	Date: 03/30/2017 19:49										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-272628/28	Chloride	52.6		mg/L	50.0	105	90-110			
300.0	LCS 240-272628/28	Sulfate	53.6		mg/L	50.0	107	90-110			
Batch ID: 272629	Date: 03/30/2017 19:49										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-272629/28	Nitrite as N	2.55		mg/L	2.50	102	90-110			
300.0	LCS 240-272629/28	Nitrate as N	2.72		mg/L	2.50	109	90-110			
Batch ID: 272988	Date: 04/03/2017 11:45										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-272988/4	Sulfate	53.8		mg/L	50.0	108	90-110			
Batch ID: 273270	Date: 04/04/2017 17:31										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-273270/4	Chloride	52.0		mg/L	50.0	104	90-110			
300.0	LCS 240-273270/4	Sulfate	52.8		mg/L	50.0	106	90-110			
Batch ID: 273271	Date: 04/04/2017 17:31										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-273271/4	Nitrite as N	2.51		mg/L	2.50	101	90-110			
300.0	LCS 240-273271/4	Nitrate as N	2.68		mg/L	2.50	107	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 273195	Date: 04/04/2017 13:12		Prep Batch: 273182			Date: 04/04/2017 08:30					
						LCS Source: WCWIBBYNUTRIE_00075					
4500 NH3 C-1997	LCS 240-273182/2-A	Ammonia	7.56		mg/L	7.93	95	82-116			
Batch ID: 272692	Date: 03/30/2017 19:05										
						LCS Source: WCWIBBYNUTRIE_00072					
4500 P E-1999	LCS 240-272692/4	Orthophosphate as P	0.520		mg/L	0.509	102	80-120			
Batch ID: 273230	Date: 04/04/2017 11:49										
						LCS Source: WCPHENOVSOLID_00021					
SM 2540C	LCS 240-273230/2	Total Dissolved Solids	244		mg/L	208	117	80-120			
Batch ID: 273380	Date: 04/05/2017 10:05										
						LCS Source: WCPHENOVSOLID_00020					
SM 2540C	LCS 240-273380/2	Total Dissolved Solids	220		mg/L	208	106	80-120			
Batch ID: 273288	Date: 04/04/2017 15:18										
						LCS Source: WCWIBBYNUTRIE_00072					
SM 4500 P E	LCS 240-273288/4	Orthophosphate as P	0.509		mg/L	0.509	100	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LOW LEVEL CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 273317	Date: 04/04/2017 13:13										
						LCS Source: WC LCS_00058					
9060	LLCS 240-273317/5	Dissolved Organic Carbon	4.70		mg/L	4.63	101	88-115			
Batch ID: 274401	Date: 04/12/2017 08:50										
						LCS Source: WC LCS_00058					
9060	LLCS 240-274401/5	Dissolved Organic Carbon	4.87		mg/L	4.63	105	88-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 MDL Date: 05/28/2013 15:29

Prep Method: 4500 NH3 B-1997

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia		2	0.87

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 XMDL Date: 05/28/2013 15:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		2	0.87

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 MDL Date: 07/12/2013 09:18

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	1.9

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 XMDL Date: 07/12/2013 09:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.9

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 MDL Date: 08/12/2014 17:01

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 XMDL Date: 08/12/2014 17:02

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: 4500 P E-1999 MDL Date: 03/31/2016 13:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: 4500 P E-1999 XMDL Date: 02/17/2016 10:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 MDL Date: 04/28/2015 15:58

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 XMDL Date: 04/28/2015 15:59

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 01/28/2010 09:50

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 01/28/2010 09:51

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: SM 4500 P E MDL Date: 03/31/2016 13:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77416-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: SM 4500 P E XMDL Date: 02/17/2016 10:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Orthophosphate as P		0.1	0.005

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Prep Method: 4500 NH3 B-1997

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-273182/1-A	04/04/2017 08:30	273182		50	50
LCS 240-273182/2-A	04/04/2017 08:30	273182		50	50
190-13140-A-1-B MS	04/04/2017 08:30	273182		50	50
190-13140-A-1-C MSD	04/04/2017 08:30	273182		50	50
240-77416-1	04/04/2017 08:30	273182		50	50
240-77416-2	04/04/2017 08:30	273182		50	50

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Prep Method: 4500 NH3 B-1997

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
240-77601-2	04/11/2017 12:45	274268		50	50

FORM XII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 4500 NH3 C-1997

Start Date: 04/04/2017 13:10 End Date: 04/04/2017 13:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
MB 240-273182/1-A	1	T	13:10	X																								
LCS 240-273182/2-A	1	T	13:12	X																								
ZZZZZZ			13:14																									
ZZZZZZ			13:16																									
ZZZZZZ			13:18																									
ZZZZZZ			13:20																									
ZZZZZZ			13:22																									
190-13140-A-1-B MS	1	T	13:24	X																								
190-13140-A-1-C MSD	1	T	13:27	X																								
240-77416-1	1	T	13:29	X																								
240-77416-2	1	T	13:31	X																								
ZZZZZZ			13:33																									
ZZZZZZ			13:35																									
ZZZZZZ			13:37																									
ZZZZZZ			13:39																									
ZZZZZZ			13:41																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 04/03/2017 09:40 End Date: 04/03/2017 15:26

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 240-273095/1			09:40																									
RINSE 240-273095/2			09:46																									
ZZZZZZ			10:06																									
LCS 240-273095/4	1	T	10:18	X																								
MB 240-273095/5	1	T	10:24	X																								
ZZZZZZ			10:28																									
ZZZZZZ			10:43																									
ZZZZZZ			10:59																									
ZZZZZZ			11:17																									
ZZZZZZ			11:39																									
ZZZZZZ			11:53																									
ZZZZZZ			12:07																									
ZZZZZZ			12:18																									
ZZZZZZ			12:29																									
ZZZZZZ			12:41																									
ZZZZZZ			12:51																									
ZZZZZZ			12:56																									
ZZZZZZ			13:06																									
240-77485-G-4 DU	1	T	13:17	X																								
ZZZZZZ			13:33																									
ZZZZZZ			13:45																									
ZZZZZZ			13:55																									
ZZZZZZ			14:10																									
240-77416-1	1	T	14:19	X																								
240-77416-2	1	T	14:25	X																								
ZZZZZZ			14:52																									
ZZZZZZ			15:02																									
ZZZZZZ			15:06																									
ZZZZZZ			15:13																									
ZZZZZZ			15:22																									
ZZZZZZ			15:26																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 04/07/2017 10:16 End Date: 04/07/2017 13:40

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			10:16																									
LCS 240-273991/2	1	T	10:28	X																								
MB 240-273991/3	1	T	10:35	X																								
ZZZZZZ			10:39																									
ZZZZZZ			10:51																									
240-77621-E-1 DU	1	T	11:02	X																								
ZZZZZZ			11:14																									
ZZZZZZ			11:31																									
240-77601-2	1	T	11:38	X																								
ZZZZZZ			11:45																									
ZZZZZZ			11:52																									
ZZZZZZ			11:59																									
ZZZZZZ			12:05																									
ZZZZZZ			12:12																									
ZZZZZZ			12:16																									
ZZZZZZ			12:23																									
ZZZZZZ			12:30																									
ZZZZZZ			12:37																									
ZZZZZZ			12:49																									
ZZZZZZ			12:59																									
ZZZZZZ			13:06																									
ZZZZZZ			13:13																									
ZZZZZZ			13:21																									
ZZZZZZ			13:28																									
ZZZZZZ			13:36																									
ZZZZZZ			13:40																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/28/2017 18:00 End Date: 03/28/2017 21:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cl-	SO4																							
STD1 240-272283/1 IC	1		18:00	X	X																							
STD2 240-272283/2 IC	1		18:20	X	X																							
STD3 240-272283/3 IC	1		18:40	X	X																							
STD4 240-272283/4 IC	1		19:00	X	X																							
STD5 240-272283/5 ICRT	1		19:20	X	X																							
STD6 240-272283/6 IC	1		19:41	X	X																							
STD7 240-272283/7 IC	1		20:01	X	X																							
STD8 240-272283/8 IC	1		20:21	X	X																							
STD9 240-272283/9 IC	1		20:41	X	X																							
ICV 240-272283/10	1		21:01	X	X																							
ICB 240-272283/11	1		21:21	X	X																							

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/28/2017 18:00 End Date: 03/28/2017 21:21

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
STD1 240-272284/1 IC	1		18:00	X	X																								
STD2 240-272284/2 IC	1		18:20	X	X																								
STD3 240-272284/3 IC	1		18:40	X	X																								
STD4 240-272284/4 IC	1		19:00	X	X																								
STD5 240-272284/5 ICRT	1		19:20	X	X																								
STD6 240-272284/6 IC	1		19:41	X	X																								
STD7 240-272284/7 IC	1		20:01	X	X																								
STD8 240-272284/8 IC	1		20:21	X	X																								
STD9 240-272284/9 IC	1		20:41	X	X																								
ICV 240-272284/10	1		21:01	X	X																								
ICB 240-272284/11	1		21:21	X	X																								

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/30/2017 10:04 End Date: 03/30/2017 20:49

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
CCV 240-272628/1	1		10:04	X	X																								
CCB 240-272628/2	1		10:24	X	X																								
MB 240-272628/3	1	T	10:44	X	X																								
LCS 240-272628/4	1	T	11:04	X	X																								
ZZZZZZ			12:07																										
ZZZZZZ			12:27																										
ZZZZZZ			12:47																										
ZZZZZZ			13:07																										
ZZZZZZ			13:27																										
ZZZZZZ			13:47																										
ZZZZZZ			14:07																										
ZZZZZZ			14:27																										
CCV 240-272628/13	1		14:48	X	X																								
CCB 240-272628/14	1		15:08	X	X																								
ZZZZZZ			15:28																										
240-77403-A-2 MS	1		15:48	X	X																								
240-77403-A-2 MSD	1		16:08	X	X																								
ZZZZZZ			16:48																										
240-77416-1	1	T	18:29	X																									
CCV 240-272628/25	1		18:49	X	X																								
CCB 240-272628/26	1		19:09	X	X																								
MB 240-272628/27	1	T	19:29	X	X																								
LCS 240-272628/28	1	T	19:49	X	X																								
240-77416-2	1	T	20:09	X	X																								
CCV 240-272628/30	1		20:29	X	X																								
CCB 240-272628/31	1		20:49	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 03/30/2017 10:04 End Date: 03/30/2017 20:49

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-272629/1	1		10:04	X	X																								
CCB 240-272629/2	1		10:24	X	X																								
MB 240-272629/3	1	T	10:44	X	X																								
LCS 240-272629/4	1	T	11:04	X	X																								
ZZZZZZ			12:07																										
ZZZZZZ			12:27																										
ZZZZZZ			12:47																										
ZZZZZZ			13:07																										
ZZZZZZ			13:27																										
ZZZZZZ			13:47																										
ZZZZZZ			14:07																										
ZZZZZZ			14:27																										
CCV 240-272629/13	1		14:48	X	X																								
CCB 240-272629/14	1		15:08	X	X																								
ZZZZZZ			15:28																										
240-77403-A-2 MS	1	T	15:48	X	X																								
240-77403-A-2 MSD	1	T	16:08	X	X																								
ZZZZZZ			16:28																										
ZZZZZZ			16:48																										
ZZZZZZ			17:08																										
ZZZZZZ			17:28																										
ZZZZZZ			17:49																										
ZZZZZZ			18:09																										
240-77416-1	1	T	18:29	X	X																								
CCV 240-272629/25	1		18:49	X	X																								
CCB 240-272629/26	1		19:09	X	X																								
MB 240-272629/27	1	T	19:29	X	X																								
LCS 240-272629/28	1	T	19:49	X	X																								
240-77416-2	1	T	20:09	X	X																								
CCV 240-272629/30	1		20:29	X	X																								
CCB 240-272629/31	1		20:49	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/03/2017 10:45 End Date: 04/04/2017 00:09

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
CCV 240-272988/1	1		10:45	X																								
CCB 240-272988/2	1		11:05	X																								
MB 240-272988/3	1	T	11:25	X																								
LCS 240-272988/4	1	T	11:45	X																								
ZZZZZZ			12:05																									
ZZZZZZ			12:25																									
ZZZZZZ			12:45																									
ZZZZZZ			13:06																									
ZZZZZZ			13:26																									
ZZZZZZ			13:46																									
ZZZZZZ			14:06																									
ZZZZZZ			14:26																									
CCV 240-272988/13	1		14:46	X																								
CCB 240-272988/14	1		15:06	X																								
ZZZZZZ			15:26																									
ZZZZZZ			15:46																									
ZZZZZZ			16:06																									
ZZZZZZ			16:26																									
240-77416-1	5	T	16:46	X																								
ZZZZZZ			17:07																									
ZZZZZZ			17:27																									
ZZZZZZ			17:47																									
ZZZZZZ			18:07																									
ZZZZZZ			18:27																									
CCV 240-272988/25	1		18:47	X																								
CCB 240-272988/26	1		19:07	X																								
ZZZZZZ			19:27																									
ZZZZZZ			19:47																									
ZZZZZZ			20:08																									
ZZZZZZ			20:28																									
ZZZZZZ			20:48																									
ZZZZZZ			21:08																									
ZZZZZZ			21:28																									
ZZZZZZ			21:48																									
CCV 240-272988/35			22:08																									
CCB 240-272988/36			22:28																									
ZZZZZZ			22:48																									
ZZZZZZ			23:08																									
ZZZZZZ			23:29																									
CCV 240-272988/40			23:49																									
CCB 240-272988/41			00:09																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/03/2017 10:45 End Date: 04/04/2017 00:09

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/04/2017 16:31 End Date: 04/05/2017 00:13

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
CCV 240-273270/1	1		16:31	X	X																								
CCB 240-273270/2	1		16:51	X	X																								
MB 240-273270/3	1	T	17:11	X	X																								
LCS 240-273270/4	1	T	17:31	X	X																								
ZZZZZZ			17:51																										
ZZZZZZ			18:11																										
ZZZZZZ			18:31																										
ZZZZZZ			18:51																										
ZZZZZZ			19:12																										
ZZZZZZ			19:32																										
ZZZZZZ			19:52																										
ZZZZZZ			20:12																										
CCV 240-273270/13	1		20:32	X	X																								
CCB 240-273270/14	1		20:52	X	X																								
240-77601-2	1	T	21:12	X	X																								
240-77601-2 MS	1	T	21:32	X	X																								
240-77601-2 MSD	1	T	21:52	X	X																								
ZZZZZZ			22:12																										
ZZZZZZ			22:32																										
ZZZZZZ			22:52																										
ZZZZZZ			23:13																										
ZZZZZZ			23:33																										
CCV 240-273270/23	1		23:53	X	X																								
CCB 240-273270/24	1		00:13	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/04/2017 16:31 End Date: 04/05/2017 00:13

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-273271/1	1		16:31	X	X																								
CCB 240-273271/2	1		16:51	X	X																								
MB 240-273271/3	1	T	17:11	X	X																								
LCS 240-273271/4	1	T	17:31	X	X																								
ZZZZZZ			17:51																										
ZZZZZZ			18:11																										
ZZZZZZ			18:31																										
ZZZZZZ			18:51																										
ZZZZZZ			19:12																										
ZZZZZZ			19:32																										
ZZZZZZ			20:12																										
CCV 240-273271/13	1		20:32	X	X																								
CCB 240-273271/14	1		20:52	X	X																								
240-77601-2	1	T	21:12	X	X																								
240-77601-2 MS	1	T	21:32	X	X																								
240-77601-2 MSD	1	T	21:52	X	X																								
ZZZZZZ			22:12																										
ZZZZZZ			22:32																										
ZZZZZZ			22:52																										
CCV 240-273271/23	1		23:53	X	X																								
CCB 240-273271/24	1		00:13	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: ERNIE Analysis Method: 4500 P E-1999

Start Date: 03/30/2017 19:05 End Date: 03/30/2017 19:05

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp as P																								
CCV 240-272692/1	1		19:05	X																								
CCB 240-272692/2	1		19:05	X																								
MB 240-272692/3	1	T	19:05	X																								
LCS 240-272692/4	1	T	19:05	X																								
ZZZZZZ			19:05																									
240-77411-Q-1 MS	1	T	19:05	X																								
240-77411-Q-1 MSD	1	T	19:05	X																								
240-77416-1	1	T	19:05	X																								
240-77416-2	1	T	19:05	X																								
CCV 240-272692/10	1		19:05	X																								
CCB 240-272692/11	1		19:05	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: Clark Analysis Method: 9060

Start Date: 04/04/2017 12:16 End Date: 04/04/2017 14:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			12:16																									
CCVL 240-273317/2	1		12:49	X																								
CCB 240-273317/3	1		12:56	X																								
MB 240-273317/4	1	D	13:05	X																								
LLCS 240-273317/5	1	D	13:13	X																								
240-77416-1	1	D	13:22	X																								
240-77416-1 MS	2	D	13:49	X																								
240-77416-1 MSD	2	D	13:57	X																								
240-77416-2	1	D	14:06	X																								
CCVL 240-273317/10	1		14:33	X																								
CCB 240-273317/11	1		14:41	X																								

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: Clark Analysis Method: 9060

Start Date: 04/12/2017 07:53 End Date: 04/12/2017 09:52

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			07:53																									
CCVL 240-274401/2	1		08:26	X																								
CCB 240-274401/3	1		08:33	X																								
MB 240-274401/4	1	D	08:42	X																								
LLCS 240-274401/5	1	D	08:50	X																								
240-77601-2	1	D	08:59	X																								
240-77601-2 MS	2	D	09:27	X																								
240-77601-2 MSD	2	D	09:35	X																								
CCVL 240-274401/9	1		09:43	X																								
CCB 240-274401/10	1		09:52	X																								

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 04/04/2017 11:49 End Date: 04/04/2017 11:49

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-273230/1	1	T	11:49	X																								
LCS 240-273230/2	1	T	11:49	X																								
240-77400-R-1 DU	1	T	11:49	X																								
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
240-77416-1	1	T	11:49	X																								
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
240-77411-Q-1 DU	1	T	11:49	X																								
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
ZZZZZZ			11:49																									
240-77416-2	1	T	11:49	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 04/05/2017 10:05 End Date: 04/05/2017 10:05

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-273380/1	1	T	10:05	X																								
LCS 240-273380/2	1	T	10:05	X																								
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
240-77609-D-1 DU	1	T	10:05	X																								
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
240-77601-2	1	T	10:05	X																								
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									
ZZZZZZ			10:05																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: ERNIE Analysis Method: SM 4500 P E

Start Date: 03/14/2017 12:45 End Date: 03/14/2017 13:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp P																								
IC 240-270540/1	1		12:45	X																								
IC 240-270540/2	1		12:48	X																								
IC 240-270540/3	1		12:51	X																								
IC 240-270540/4	1		12:55	X																								
IC 240-270540/5	1		12:58	X																								
IC 240-270540/6	1		13:01	X																								
IC 240-270540/7	1		13:05	X																								
IC 240-270540/8	1		13:08	X																								
IC 240-270540/9	1		13:11	X																								
IC 240-270540/10	1		13:15	X																								
ICV 240-270540/11	1		13:18	X																								
ICB 240-270540/12	1		13:22	X																								
ZZZZZZ			13:25																									
ZZZZZZ			13:28																									
ZZZZZZ			13:32																									
ZZZZZZ			13:35																									
ZZZZZZ			13:38																									
CCV 240-270540/18			13:42																									
CCB 240-270540/19			13:45																									

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Instrument ID: ERNIE Analysis Method: SM 4500 P E

Start Date: 04/04/2017 15:18 End Date: 04/04/2017 15:19

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp P																								
CCV 240-273288/1	1		15:18	X																								
CCB 240-273288/2	1		15:18	X																								
MB 240-273288/3	1	T	15:18	X																								
LCS 240-273288/4	1	T	15:18	X																								
240-77601-2	1	T	15:18	X																								
240-77601-2 MS	1	T	15:18	X																								
240-77601-2 MSD	1	T	15:18	X																								
CCV 240-273288/8	1		15:18	X																								
CCB 240-273288/9	1		15:19	X																								

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273182 Batch Start Date: 04/04/17 08:30 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 B-1997 Batch End Date: 04/04/17 11:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	AdjustedpH	WCNH31000 00046	WCWIBBYNUTRIE 00075
MB 240-273182/1		4500 NH3 B-1997, 4500 NH3 C-1997		X	50 mL	50 mL	X SU		
LCS 240-273182/2		4500 NH3 B-1997, 4500 NH3 C-1997		X	50 mL	50 mL	X SU		50 mL
190-13140-A-1 MS		4500 NH3 B-1997, 4500 NH3 C-1997	T	X	50 mL	50 mL	X SU	0.2 mL	
190-13140-A-1 MSD		4500 NH3 B-1997, 4500 NH3 C-1997	T	X	50 mL	50 mL	X SU	0.2 mL	
240-77416-M-1	MRC-MW37A-032917	4500 NH3 B-1997, 4500 NH3 C-1997	T	X	50 mL	50 mL	X SU		
240-77416-M-2	MRC-MW37B-032917	4500 NH3 B-1997, 4500 NH3 C-1997	T	X	50 mL	50 mL	X SU		

Batch Notes	
Base used for pH adjustment	2932916
Batch Comment	BEAKERS 2975234
Borate Buffer Dispenser ID	2899113
Boric Acid Dispenser ID	2953531
Distilliation Unit ID	DISTILLATION BLOCK IN WET PREP
Glass Beads Lot #	HENGAR 10/15/2015
Pipette ID	B6 C3 E8

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273195 Batch Start Date: 04/04/17 13:10 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 C-1997 Batch End Date: 04/04/17 13:44

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TitrantVolume1			
MB 240-273182/1-A		4500 NH3 C-1997		50 mL	50 mL	0.00 mL			
LCS 240-273182/2-A		4500 NH3 C-1997		50 mL	50 mL	1.35 mL			
190-13140-A-1-B MS		4500 NH3 C-1997	T	50 mL	50 mL	1.15 mL			
190-13140-A-1-C MSD		4500 NH3 C-1997	T	50 mL	50 mL	1.10 mL			
240-77416-M-1-A	MRC-MW37A-032917	4500 NH3 C-1997	T	50 mL	50 mL	0.00 mL			
240-77416-M-2-A	MRC-MW37B-032917	4500 NH3 C-1997	T	50 mL	50 mL	0.00 mL			

Batch Notes	
Batch Comment	beakers 2975234
Sulfuric Acid Lot Number	2851240
Nominal Amount Used	50 mL
Normality of First Titrant	0.0200 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 274268 Batch Start Date: 04/11/17 12:45 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 B-1997 Batch End Date: 04/11/17 15:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	AdjustedpH		
240-77601-M-2	MRC-MW21B-040317	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		

Batch Notes	
Base used for pH adjustment	2932916
Batch Comment	beakers 2975240
Borate Buffer Dispenser ID	2899113
Boric Acid Dispenser ID	2921781
Distilliation Unit ID	distillation block in wet prep
Distillation Temperature	162 Degrees C
Glass Beads Lot #	Hengar 10/24/2014
Phenanthroline ID	2959101
Pipette ID	B3 C6 E6

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 274273 Batch Start Date: 04/11/17 15:12 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 C-1997 Batch End Date: 04/11/17 15:47

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TitrantVolume1			
240-77601-M-2-A	MRC-MW21B-040317	4500 NH3 C-1997	T	50 mL	50 mL	0.10 mL			

Batch Notes	
Batch Comment	indicator 2914203
Sulfuric Acid Lot Number	2851240
Nominal Amount Used	50 mL
Normality of First Titrant	0.0200 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273095 Batch Start Date: 04/03/17 09:40 Batch Analyst: Nolle, Laura C

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CalcMsg	FinalAmount	WCPHENOMINER 00016		
LCS 240-273095/4		2320B-1997		50 mL	BuretStart2 is blank	50 mL	50 mL		
MB 240-273095/5		2320B-1997		50 mL	BuretStart2 is blank	50 mL			
240-77485-G-4 DU		2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-77416-O-1	MRC-MW37A-032917	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-77416-O-2	MRC-MW37B-032917	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			

Batch Notes	
pH Buffer 1 ID	4-2971168
pH Buffer 2 ID	7-2971175
pH Buffer 3 ID	10-2916910
pH Buffer 4 ID	12-2971172
Nominal Amount Used	50 mL
Probe ID	WCP114
Normality of First Titrant	.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273178 Batch Start Date: 04/03/17 09:40 Batch Analyst: Nolle, Laura C

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg					
LCS 240-273178/4		2320B-1997		InitialAmount is blank					
MB 240-273178/5		2320B-1997		InitialAmount is blank					
240-77485-G-4 DU		2320B-1997	T	InitialAmount is blank					
240-77416-O-1	MRC-MW37A-032917	2320B-1997	T	InitialAmount is blank					
240-77416-O-2	MRC-MW37B-032917	2320B-1997	T	InitialAmount is blank					

Batch Notes	
pH Buffer 1 ID	4-2971168
pH Buffer 2 ID	7-2971175
pH Buffer 3 ID	10-2916910
pH Buffer 4 ID	12-2971172
Nominal Amount Used	.02 mL
Pipette ID	114

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273991 Batch Start Date: 04/07/17 10:16 Batch Analyst: Nolle, Laura C

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	WCPHENOMINER 00016				
LCS 240-273991/2		2320B-1997		InitialAmount is blank	50 mL				
MB 240-273991/3		2320B-1997		InitialAmount is blank					
240-77621-E-1 DU		2320B-1997	T	InitialAmount is blank					
240-77601-L-2	MRC-MW21B-040317	2320B-1997	T	InitialAmount is blank					

Batch Notes	
pH Buffer 1 ID	4-2971168
pH Buffer 2 ID	7-2971175
pH Buffer 3 ID	10-2971171
pH Buffer 4 ID	12-2971173
Nominal Amount Used	50 mL
Probe ID	112
Normality of First Titrant	.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272283 Batch Start Date: 03/28/17 18:00 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00281	WCICLCS 00603			
STD1 240-272283/1 IC		300.0		5 mL	0.025 mL				
STD2 240-272283/2 IC		300.0		5 mL	0.125 mL				
STD3 240-272283/3 IC		300.0		5 mL	0.25 mL				
STD4 240-272283/4 IC		300.0		5 mL	0.5 mL				
STD5 240-272283/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-272283/6 IC		300.0		5 mL	2 mL				
STD7 240-272283/7 IC		300.0		5 mL	2.5 mL				
STD8 240-272283/8 IC		300.0		5 mL	3.75 mL				
STD9 240-272283/9 IC		300.0		5 mL	5 mL				
ICV 240-272283/10		300.0		5 mL		5 mL			
ICB 240-272283/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272284 Batch Start Date: 03/28/17 18:00 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00281	WCICLCS 00603			
STD1 240-272284/1 IC		300.0		5 mL	0.025 mL				
STD2 240-272284/2 IC		300.0		5 mL	0.125 mL				
STD3 240-272284/3 IC		300.0		5 mL	0.25 mL				
STD4 240-272284/4 IC		300.0		5 mL	0.5 mL				
STD5 240-272284/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-272284/6 IC		300.0		5 mL	2 mL				
STD7 240-272284/7 IC		300.0		5 mL	2.5 mL				
STD8 240-272284/8 IC		300.0		5 mL	3.75 mL				
STD9 240-272284/9 IC		300.0		5 mL	5 mL				
ICV 240-272284/10		300.0		5 mL		5 mL			
ICB 240-272284/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272628 Batch Start Date: 03/30/17 10:04 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00765	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-272628/1		300.0		5 mL	5 mL				
CCB 240-272628/2		300.0		5 mL					
MB 240-272628/3		300.0		5 mL					
LCS 240-272628/4		300.0		5 mL		5 mL			
CCV 240-272628/13		300.0		5 mL	5 mL				
CCB 240-272628/14		300.0		5 mL					
240-77403-A-2 MS		300.0		5 mL			0.1 mL	0.1 mL	
240-77403-A-2 MSD		300.0		5 mL					
240-77416-O-1	MRC-MW37A-032917	300.0	T	5 mL					
CCV 240-272628/25		300.0		5 mL	5 mL				
CCB 240-272628/26		300.0		5 mL					
MB 240-272628/27		300.0		5 mL					
LCS 240-272628/28		300.0		5 mL		5 mL			
240-77416-O-2	MRC-MW37B-032917	300.0	T	5 mL					
CCV 240-272628/30		300.0		5 mL	5 mL				
CCB 240-272628/31		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272629 Batch Start Date: 03/30/17 10:04 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00765	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-272629/1		300.0		5 mL	5 mL				
CCB 240-272629/2		300.0		5 mL					
MB 240-272629/3		300.0		5 mL					
LCS 240-272629/4		300.0		5 mL		5 mL			
CCV 240-272629/13		300.0		5 mL	5 mL				
CCB 240-272629/14		300.0		5 mL					
240-77403-A-2 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-77403-A-2 MSD		300.0	T	5 mL					
240-77416-O-1	MRC-MW37A-032917	300.0	T	5 mL					
CCV 240-272629/25		300.0		5 mL	5 mL				
CCB 240-272629/26		300.0		5 mL					
MB 240-272629/27		300.0		5 mL					
LCS 240-272629/28		300.0		5 mL		5 mL			
240-77416-O-2	MRC-MW37B-032917	300.0	T	5 mL					
CCV 240-272629/30		300.0		5 mL	5 mL				
CCB 240-272629/31		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272988 Batch Start Date: 04/03/17 10:45 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00765	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-272988/1		300.0		5 mL	5 mL				
CCB 240-272988/2		300.0		5 mL					
MB 240-272988/3		300.0		5 mL					
LCS 240-272988/4		300.0		5 mL		5 mL			
CCV 240-272988/13		300.0		5 mL	5 mL				
CCB 240-272988/14		300.0		5 mL					
240-77416-L-1	MRC-MW37A-032917	300.0	T	5 mL					
CCV 240-272988/25		300.0		5 mL	5 mL				
CCB 240-272988/26		300.0		5 mL					
240-77401-M-1 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-77401-M-1 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273270 Batch Start Date: 04/04/17 16:31 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00765	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-273270/1		300.0		5 mL	5 mL				
CCB 240-273270/2		300.0		5 mL					
MB 240-273270/3		300.0		5 mL					
LCS 240-273270/4		300.0		5 mL		5 mL			
CCV 240-273270/13		300.0		5 mL	5 mL				
CCB 240-273270/14		300.0		5 mL					
240-77601-O-2	MRC-MW21B-040317	300.0	T	5 mL					
240-77601-O-2 MS	MRC-MW21B-040317	300.0	T	5 mL			0.1 mL	0.1 mL	
240-77601-O-2 MSD	MRC-MW21B-040317	300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-273270/23		300.0		5 mL	5 mL				
CCB 240-273270/24		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273271 Batch Start Date: 04/04/17 16:31 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00765	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-273271/1		300.0		5 mL	5 mL				
CCB 240-273271/2		300.0		5 mL					
MB 240-273271/3		300.0		5 mL					
LCS 240-273271/4		300.0		5 mL		5 mL			
CCV 240-273271/13		300.0		5 mL	5 mL				
CCB 240-273271/14		300.0		5 mL					
240-77601-O-2	MRC-MW21B-040317	300.0	T	5 mL					
240-77601-O-2 MS	MRC-MW21B-040317	300.0	T	5 mL			0.1 mL	0.1 mL	
240-77601-O-2 MSD	MRC-MW21B-040317	300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-273271/23		300.0		5 mL	5 mL				
CCB 240-273271/24		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 270540 Batch Start Date: 03/14/17 12:45 Batch Analyst: Weimer, Joshua W

Batch Method: 4500 P E-1999 Batch End Date: 03/14/17 13:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00023			
IC 240-270540/1		4500 P E-1999		10 mL	10 mL				
IC 240-270540/2		4500 P E-1999		10 mL	10 mL	0.1 mL			
IC 240-270540/3		4500 P E-1999		10 mL	10 mL	0.2 mL			
IC 240-270540/4		4500 P E-1999		10 mL	10 mL	0.6 mL			
IC 240-270540/5		4500 P E-1999		10 mL	10 mL	1 mL			
IC 240-270540/6		4500 P E-1999		10 mL	10 mL	2 mL			
IC 240-270540/7		4500 P E-1999		10 mL	10 mL	4 mL			
IC 240-270540/8		4500 P E-1999		10 mL	10 mL	6 mL			
IC 240-270540/9		4500 P E-1999		10 mL	10 mL	8 mL			
IC 240-270540/10		4500 P E-1999		10 mL	10 mL	10 mL			

Batch Notes	
Pipette ID	B8/C2/E1/F5

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 272692 Batch Start Date: 03/30/17 19:05 Batch Analyst: Nolle, Laura C

Batch Method: 4500 P E-1999 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00023	WCPHOS50PPM 00088	WCWIBBYNUTRIE 00072	
CCV 240-272692/1		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-272692/2		4500 P E-1999		10 mL	10 mL				
MB 240-272692/3		4500 P E-1999		10 mL	10 mL				
LCS 240-272692/4		4500 P E-1999		10 mL	10 mL			1 mL	
240-77411-Q-1 MS		4500 P E-1999	T	10 mL	10 mL		0.1 mL		
240-77411-Q-1 MSD		4500 P E-1999	T	10 mL	10 mL		0.1 mL		
240-77416-O-1	MRC-MW37A-032917	4500 P E-1999	T	10 mL	10 mL				
240-77416-O-2	MRC-MW37B-032917	4500 P E-1999	T	10 mL	10 mL				
CCV 240-272692/10		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-272692/11		4500 P E-1999		10 mL	10 mL				

Batch Notes	
Batch Comment	Color Reagent # A6292
Pipette ID	B3 E3

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273317 Batch Start Date: 04/04/17 12:16 Batch Analyst: Harshman, Tom

Batch Method: 9060 Batch End Date: 04/04/17 14:41

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WC LCS 00058	WC TOC CCVL 00147		
CCVL 240-273317/2		9060		40 mL	40 mL		40 mL		
CCB 240-273317/3		9060		40 mL	40 mL				
MB 240-273317/4		9060		40 mL	40 mL				
LLCS 240-273317/5		9060		40 mL	40 mL	4 mL			
240-77416-H-1	MRC-MW37A-032917	9060	D	40 mL	40 mL				
240-77416-H-1 MS	MRC-MW37A-032917	9060	D	40 mL	40 mL		20 mL		
240-77416-H-1 MSD	MRC-MW37A-032917	9060	D	40 mL	40 mL		20 mL		
240-77416-G-2	MRC-MW37B-032917	9060	D	40 mL	40 mL				
CCVL 240-273317/10		9060		40 mL	40 mL		40 mL		
CCB 240-273317/11		9060		40 mL	40 mL				

Batch Notes	
Phosphoric Acid ID	2959670
Sodium Persulfate ID	2959671

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 274401 Batch Start Date: 04/12/17 07:53 Batch Analyst: Harshman, Tom

Batch Method: 9060 Batch End Date: 04/12/17 09:52

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WC LCS 00058	WC TOC CCVL 00148		
CCVL 240-274401/2		9060		40 mL	40 mL		40 mL		
CCB 240-274401/3		9060		40 mL	40 mL				
MB 240-274401/4		9060		40 mL	40 mL				
LLCS 240-274401/5		9060		40 mL	40 mL	4 mL			
240-77601-C-2	MRC-MW21B-040317	9060	D	40 mL	40 mL				
240-77601-C-2 MS	MRC-MW21B-040317	9060	D	40 mL	40 mL		20 mL		
240-77601-C-2 MSD	MRC-MW21B-040317	9060	D	40 mL	40 mL		20 mL		
CCVL 240-274401/9		9060		40 mL	40 mL		40 mL		
CCB 240-274401/10		9060		40 mL	40 mL				

Batch Notes	
Phosphoric Acid ID	2959670
Sodium Persulfate ID	2959671

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273230 Batch Start Date: 04/04/17 11:49 Batch Analyst: Larue, Charles

Batch Method: SM 2540C Batch End Date: 04/05/17 17:01

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	Weight3
MB 240-273230/1		SM 2540C			100 mL	3.8705 g	3.8710 g	3.8710 g	0 g
LCS 240-273230/2		SM 2540C			50 mL	3.8879 g	3.9002 g	3.9001 g	0 g
240-77400-R-1 DU		SM 2540C	T	625 umhos/cm	100 mL	3.8882 g	3.9278 g	3.9283 g	0 g
240-77416-O-1	MRC-MW37A-032917	SM 2540C	T	840 umhos/cm	100 mL	3.8966 g	3.9607 g	3.9603 g	0 g
240-77411-Q-1 DU		SM 2540C	T	1440 umhos/cm	100 mL	3.9009 g	4.0151 g	4.0137 g	4.0138 g
240-77416-L-2	MRC-MW37B-032917	SM 2540C	T	170 umhos/cm	100 mL	3.8806 g	3.8919 g	3.8919 g	0 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight4	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2
MB 240-273230/1		SM 2540C		0 g	Pass No Unit	N/A No Unit	N/A	0.0005 g	0.0005 g
LCS 240-273230/2		SM 2540C		0 g	Pass No Unit	N/A No Unit	N/A	0.0123 g	0.0122 g
240-77400-R-1 DU		SM 2540C	T	0 g	Pass No Unit	N/A No Unit	N/A	0.0396 g	0.0401 g
240-77416-O-1	MRC-MW37A-032917	SM 2540C	T	0 g	Pass No Unit	N/A No Unit	N/A	0.0641 g	0.0637 g
240-77411-Q-1 DU		SM 2540C	T	0 g	Fail >0.5mg No Unit	Pass No Unit	N/A	0.1142 g	0.1128 g
240-77416-L-2	MRC-MW37B-032917	SM 2540C	T	0 g	Pass No Unit	N/A No Unit	N/A	0.0113 g	0.0113 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue3	Residue4	FinalAmount	CalcMsg	WCPHENOVSOLID 00021	
MB 240-273230/1		SM 2540C		N/A g	N/A g	100 mL	OK		
LCS 240-273230/2		SM 2540C		N/A g	N/A g	100 mL	OK	50 mL	
240-77400-R-1 DU		SM 2540C	T	N/A g	N/A g	100 mL	OK		
240-77416-O-1	MRC-MW37A-032917	SM 2540C	T	N/A g	N/A g	100 mL	OK		
240-77411-Q-1 DU		SM 2540C	T	0.1129 g	N/A g	100 mL	OK		
240-77416-L-2	MRC-MW37B-032917	SM 2540C	T	N/A g	N/A g	100 mL	OK		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273230 Batch Start Date: 04/04/17 11:49 Batch Analyst: Larue, Charles

Batch Method: SM 2540C Batch End Date: 04/05/17 17:01

Batch Notes	
Balance ID	B048
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	4/5/17 11:51
Constant Weight (WT2) Date/Time Out	4/5/17 13:44
Uncorrected CW (Wt2) Temp In	182 Degrees C
Uncorrected CW (Wt2) Temp Out	182 Degrees C
Constant Weight (WT3) Date/time In	4/5/17 14:23
Constant Weight (WT3) Date/Time Out	4/5/17 17:00
Uncorrected CW (Wt3) Temp In	182 Degrees C
Uncorrected CW (Wt3) Temp Out	182 Degrees C
Date/Time Samples placed in Oven	4/4/17 1635
Filter Paper ID	2909659
Nominal Amount Used	100 mL
Oven ID	006
Uncorrected In Temperature	102 Degrees C
Weight(WT1) Start Date/Time	4/5/17 09:35
Weight(WT1) Date/Time Out	4/5/17 10:53
Uncorrected Weight(WT1) Start Temp	182 Degrees C
Uncorrected Weight(WT1) Temp Out	182 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273380 Batch Start Date: 04/05/17 10:04 Batch Analyst: Weisend, Joseph

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	WeightOne%Diff
MB 240-273380/1		SM 2540C			100 mL	3.8893 g	3.8892 g	3.8895 g	Pass No Unit
LCS 240-273380/2		SM 2540C			50 mL	3.8947 g	3.9061 g	3.9057 g	Pass No Unit
240-77609-D-1 DU		SM 2540C	T	634 umhos/cm	100 mL	3.6595 g	3.6974 g	3.6976 g	Pass No Unit
240-77601-L-2	MRC-MW21B-040317	SM 2540C	T	366 umhos/cm	100 mL	3.6515 g	3.6707 g	3.6705 g	Pass No Unit

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3	Residue4
MB 240-273380/1		SM 2540C		N/A No Unit	N/A	-0.0001 g	0.0002 g	N/A g	N/A g
LCS 240-273380/2		SM 2540C		N/A No Unit	N/A	0.0114 g	0.011 g	N/A g	N/A g
240-77609-D-1 DU		SM 2540C	T	N/A No Unit	N/A	0.0379 g	0.0381 g	N/A g	N/A g
240-77601-L-2	MRC-MW21B-040317	SM 2540C	T	N/A No Unit	N/A	0.0192 g	0.019 g	N/A g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WCPHENOVSOLID 00020			
MB 240-273380/1		SM 2540C		100 mL	OK				
LCS 240-273380/2		SM 2540C		100 mL	OK	50 mL			
240-77609-D-1 DU		SM 2540C	T	100 mL	OK				
240-77601-L-2	MRC-MW21B-040317	SM 2540C	T	100 mL	OK				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273380 Batch Start Date: 04/05/17 10:04 Batch Analyst: Weisend, Joseph

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	B048
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	04/06/17 13:30
Constant Weight (WT2) Temp In	180 Degrees C
Constant Weight (WT2) Temp Out	04/06/17 1430 Degrees C
Uncorrected CW (Wt2) Temp Out	181 Degrees C
Corrected Temperature in Oven	102 Degrees C
Date/Time Samples placed in Oven	4/5/17 11:30
Date/Time Samples Removed from Oven	04/06/17 08:20
Filter Paper ID	2909659
Nominal Amount Used	100 mL
Oven ID	006
Uncorrected Out Temperature	104 Degrees C
Weight(WT1) Start Date/Time	04/06/17 0820
Weight(WT1) Date/Time Out	04/06/17 11:30
Weight(WT1) Start Temp	182 Degrees C
Weight(WT1) Temp Out	182 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 270540 Batch Start Date: 03/14/17 12:45 Batch Analyst: Weimer, Joshua W

Batch Method: SM 4500 P E Batch End Date: 03/14/17 13:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCWIBBYNUTRIE 00072			
ICV 240-270540/11		SM 4500 P E		10 mL	10 mL	1 mL			
ICB 240-270540/12		SM 4500 P E		10 mL	10 mL				

Batch Notes	
Pipette ID	B8/C2/E1/F5

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Batch Number: 273288 Batch Start Date: 04/04/17 15:18 Batch Analyst: Nolle, Laura C

Batch Method: SM 4500 P E Batch End Date: 04/04/17 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00023	WCPHOS50PPM 00088	WCWIBBYNUTRIE 00072	
CCV 240-273288/1		SM 4500 P E		10 mL	10 mL	5 mL			
CCB 240-273288/2		SM 4500 P E		10 mL	10 mL				
MB 240-273288/3		SM 4500 P E		10 mL	10 mL				
LCS 240-273288/4		SM 4500 P E		10 mL	10 mL			1 mL	
240-77601-O-2	MRC-MW21B-040317	SM 4500 P E	T	10 mL	10 mL				
240-77601-O-2 MS	MRC-MW21B-040317	SM 4500 P E	T	10 mL	10 mL		0.1 mL		
240-77601-O-2 MSD	MRC-MW21B-040317	SM 4500 P E	T	10 mL	10 mL		0.1 mL		
CCV 240-273288/8		SM 4500 P E		10 mL	10 mL	5 mL			
CCB 240-273288/9		SM 4500 P E		10 mL	10 mL				

Batch Notes	
Batch Comment	Color Reagent # A6292
Pipette ID	B3 E3

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

ANALYTE	ORIGINAL		DUPLICATE		RL	RPD	RPD > 50%		ORIGINAL SAMPLE CONC >4xRL	DUPLICATE SAMPLE CONC >4xRL	DIFFERENCE >4XRL
ANTIMONY	1.7	J B	1.7	J B	2	0.00	FALSE		TRUE	TRUE	FALSE
ARSENIC	1.5	J	1.5	J	5	0.00	FALSE		TRUE	TRUE	FALSE
BARIUM	140	B	140	B	5	0.00	FALSE		TRUE	TRUE	FALSE
BERYLLIUM	0.4	U	0.4	U	1	0.00	FALSE		TRUE	TRUE	FALSE
CADMIUM	0.31	U	0.31	U	1	0.00	FALSE		TRUE	TRUE	FALSE
CHROMIUM	0.45	J	0.37	J	2	19.51	FALSE		TRUE	TRUE	FALSE
COBALT	26		27		1	3.77	FALSE		TRUE	TRUE	FALSE
COPPER	0.52	J B	0.44	J B	2	16.67	FALSE		TRUE	TRUE	FALSE
LEAD	0.38	J B	0.34	J B	1	11.11	FALSE		TRUE	TRUE	FALSE
MERCURY	0.13	U	0.13	U	0.2	0.00	FALSE		TRUE	TRUE	FALSE
MOLYBDENUM	0.66	J	0.68	J	10	2.99	FALSE		TRUE	TRUE	FALSE
NICKEL	19	B	21	B	2	10.00	FALSE		TRUE	TRUE	FALSE
SELENIUM	0.48	U	0.48	U	5	0.00	FALSE		TRUE	TRUE	FALSE
SILVER	0.038	J B	0.03	U	1	23.53	FALSE		TRUE	TRUE	FALSE
THALLIUM	0.28	U	0.28	U	1	0.00	FALSE		TRUE	TRUE	FALSE
VANADIUM	0.54	U	0.54	U	5	0.00	FALSE		TRUE	TRUE	FALSE
ZINC	8.3	J B	11	J B	20	27.98	FALSE		TRUE	TRUE	FALSE
ANALYTE	**ORIGINAL**		**DUPLICATE**		**RL**	**RPD**	**RPD > 50%**		**ORIGINAL SAMPLE CONC >2xRL**	**DUPLICATE SAMPLE CONC >2xRL**	**DIFFERENCE >2XRL**
1,1,1-TRICHLOROETHANE	0.23	U	0.23	U	1	0.00	FALSE		TRUE	TRUE	FALSE
1,1,2,2-TETRACHLOROETHANE	0.32	U	0.32	U	1	0.00	FALSE		TRUE	TRUE	FALSE
1,1,2-TRICHLOROETHANE	0.34	U	0.34	U	1	0.00	FALSE		TRUE	TRUE	FALSE
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41	U	0.41	U	1	0.00	FALSE		TRUE	TRUE	FALSE
1,1-DICHLOROETHANE	0.58	J	0.54	J	1	7.14	FALSE		TRUE	TRUE	FALSE
1,1-DICHLOROETHENE	0.27	U	0.27	U	1	0.00	FALSE		TRUE	TRUE	FALSE
1,2,4-TRICHLOROBENZENE	0.27	U	0.27	U	1	0.00	FALSE		TRUE	TRUE	FALSE
1,2-DIBROMO-3-CHLOROPROPANE	0.47	U	0.47	U	2	0.00	FALSE		TRUE	TRUE	FALSE
1,2-DIBROMOETHANE	0.23	U	0.23	U	1	0.00	FALSE		TRUE	TRUE	FALSE
1,2-DICHLOROBENZENE	0.26	U	0.26	U	1	0.00	FALSE		TRUE	TRUE	FALSE
1,2-DICHLOROETHANE	0.3	U	0.3	U	1	0.00	FALSE		TRUE	TRUE	FALSE
1,2-DICHLOROPROPANE	0.3	U	0.3	U	1	0.00	FALSE		TRUE	TRUE	FALSE
1,3-DICHLOROBENZENE	0.32	U	0.32	U	1	0.00	FALSE		TRUE	TRUE	FALSE
1,4-DICHLOROBENZENE	0.23	U	0.23	U	1	0.00	FALSE		TRUE	TRUE	FALSE
2-BUTANONE	1	U	1	U	10	0.00	FALSE		TRUE	TRUE	FALSE
2-HEXANONE	1.2	U	1.2	U	10	0.00	FALSE		TRUE	TRUE	FALSE
4-METHYL-2-PENTANONE	0.71	U	0.71	U	10	0.00	FALSE		TRUE	TRUE	FALSE
ACETONE	1.8	J	2.5	J	10	32.56	FALSE		TRUE	TRUE	FALSE
BENZENE	0.28	U	0.28	U	1	0.00	FALSE		TRUE	TRUE	FALSE
BROMODICHLOROMETHANE	0.3	U	0.3	U	1	0.00	FALSE		TRUE	TRUE	FALSE
BROMOFORM	0.43	U	0.43	U	1	0.00	FALSE		TRUE	TRUE	FALSE
BROMOMETHANE	0.42	U	0.42	U	1	0.00	FALSE		TRUE	TRUE	FALSE
CARBON DISULFIDE	0.34	U	0.34	U	1	0.00	FALSE		TRUE	TRUE	FALSE
CARBON TETRACHLORIDE	0.35	U	0.35	U	1	0.00	FALSE		TRUE	TRUE	FALSE
CHLOROBENZENE	0.32	U	0.32	U	1	0.00	FALSE		TRUE	TRUE	FALSE
CHLORODIBROMOMETHANE	0.25	U	0.25	U	1	0.00	FALSE		TRUE	TRUE	FALSE
CHLOROETHANE	0.41	U	0.41	U	1	0.00	FALSE		TRUE	TRUE	FALSE
CHLOROFORM	0.31	U	0.31	U	1	0.00	FALSE		TRUE	TRUE	FALSE
CHLOROMETHANE	0.43	U	0.43	U	1	0.00	FALSE		TRUE	TRUE	FALSE
CIS-1,2-DICHLOROETHENE	0.34	J	0.31	J	1	9.23	FALSE		TRUE	TRUE	FALSE
CIS-1,3-DICHLOROPROPENE	0.26	U	0.26	U	1	0.00	FALSE		TRUE	TRUE	FALSE
CYCLOHEXANE	0.44	U	0.44	U	1	0.00	FALSE		TRUE	TRUE	FALSE
DICHLORODIFLUOROMETHANE	0.5	U	0.5	U	1	0.00	FALSE		TRUE	TRUE	FALSE
ETHYLBENZENE	0.26	U	0.26	U	1	0.00	FALSE		TRUE	TRUE	FALSE
ISOPROPYLBENZENE	0.21	U	0.21	U	1	0.00	FALSE		TRUE	TRUE	FALSE
METHYL ACETATE	1.4	U	1.4	U	10	0.00	FALSE		TRUE	TRUE	FALSE
METHYL CYCLOHEXANE	0.45	U	0.45	U	1	0.00	FALSE		TRUE	TRUE	FALSE
METHYL TERT-BUTYL ETHER	0.27	U	0.27	U	1	0.00	FALSE		TRUE	TRUE	FALSE
METHYLENE CHLORIDE	0.53	U	0.53	U	1	0.00	FALSE		TRUE	TRUE	FALSE
STYRENE	0.23	U	0.23	U	1	0.00	FALSE		TRUE	TRUE	FALSE
TETRACHLOROETHENE	0.3	U	0.3	U	1	0.00	FALSE		TRUE	TRUE	FALSE
TOLUENE	0.23	U	0.23	U	1	0.00	FALSE		TRUE	TRUE	FALSE
TOTAL XYLENES	0.24	U	0.24	U	2	0.00	FALSE		TRUE	TRUE	FALSE
TRANS-1,2-DICHLOROETHENE	0.37	J	0.29	J	1	24.24	FALSE		TRUE	TRUE	FALSE
TRANS-1,3-DICHLOROPROPENE	0.31	U	0.31	U	1	0.00	FALSE		TRUE	TRUE	FALSE
TRICHLOROETHENE	0.33	U	0.33	J	1	0.00	FALSE		TRUE	TRUE	FALSE
TRICHLOROFLUOROMETHANE	0.5	U	0.5	U	1	0.00	FALSE		TRUE	TRUE	FALSE
VINYL CHLORIDE	5.3		5.2		1	1.90	FALSE		TRUE	TRUE	FALSE

SAMPLE IDENTIFICATION	MRC-MW37A-032917
COMPOUND	Trichloroethene
COMPOUND AREA	61717
INTERNAL STANDARD AMOUNT	20
DILUTION FACTOR	1
INTERNAL STANDARD AREA	973549
AVERAGE RRF	0.2817

4.50 µg/L

61717 x 20 x 1 / 973549 x 0.2817

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW37A-032917 | Lab Sample ID: 240-77416-1

Matrix: Water | Lab File ID: UX962966.D

Analysis Method: 8260C | Date Collected: 03/29/2017 08:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2017 13:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 273734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	4.5		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-124
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	84		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-132

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX9\20170407-63834.b\UX962966.D
Lims ID: 240-77416-B-1
Client ID: MRC-MW37A-032917
Sample Type: Client
Inject. Date: 07-Apr-2017 13:45:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0063834-013
Operator ID: 001765 Instrument ID: A3UX9

Method: \\ChromNA\Canton\ChromData\A3UX9\20170407-63834.b\8260_9.m
Limit Group: MSV 8260C ICAL
Last Update: 07-Apr-2017 22:11:37 Calib Date: 03-Nov-2016 21:55:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX9\20161103-59674.b\UX959560.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: bosworthh Date: 10-Apr-2017 08:49:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.724	5.724	0.000	99	973549	20.0	
* 2 Chlorobenzene-d5	117	8.410	8.410	0.000	86	848607	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.646	10.646	0.000	96	448476	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.144	5.147	-0.003	94	222801	20.9	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.440	5.442	-0.002	99	288303	20.3	
$ 6 Toluene-d8 (Surr)	98	7.097	7.099	-0.002	93	980996	18.3	
$ 7 4-Bromofluorobenzene (Surr	95	9.522	9.513	0.009	95	326178	16.7	
9 Dichlorodifluoromethane	85		1.703				ND	
10 Chloromethane	50		1.893				ND	
11 Vinyl chloride	62		2.011				ND	
13 Bromomethane	94		2.366				ND	
15 Chloroethane	64		2.472				ND	
17 Trichlorofluoromethane	101		2.709				ND	
24 1,1-Dichloroethene	61		3.206				ND	
22 1,1,2-Trichloro-1,2,2-trif	101		3.206				ND	
23 Acetone	43		3.230				ND	
26 Carbon disulfide	76		3.419				ND	
29 Methyl acetate	43		3.537				ND	
30 Methylene Chloride	49		3.667				ND	
33 Methyl tert-butyl ether	73		3.880				ND	
34 trans-1,2-Dichloroethene	61		3.880				ND	
36 1,1-Dichloroethane	63		4.247				ND	
43 cis-1,2-Dichloroethene	61		4.744				ND	
41 2-Butanone (MEK)	43		4.744				ND	
49 Chloroform	83		5.005				ND	
50 1,1,1-Trichloroethane	97		5.182				ND	
51 Cyclohexane	84		5.241				ND	
53 Carbon tetrachloride	117		5.336				ND	
55 Benzene	78		5.502				ND	
56 1,2-Dichloroethane	62		5.502				ND	
60 Trichloroethene	130	6.043	6.046	-0.003	98	61717	4.50	
62 Methylcyclohexane	83		6.223				ND	

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0084 0.0093	0.0074	0.0078	0.0085	0.0097	Ave		0.0085				10.1		20.0			
Benzene	0.9773 1.0660	1.0220	1.0742	1.0397	1.0682	Ave		1.0412			0.5000	3.6		20.0			
1,2-Dichloroethane	0.3961 0.3697	0.3827	0.3803	0.3625	0.3771	Ave		0.3781			0.1000	3.1		20.0			
n-Heptane	+++++ 0.1709	0.2884	0.1629	0.1584	0.1591	Lin1	0.1055	0.1629							0.9970		0.9900
Trichloroethene	0.2541 0.2829	0.2997	0.2875	0.2799	0.2864	Ave		0.2817			0.1500	5.4		20.0			
Methylcyclohexane	0.2846 0.3569	0.2848	0.3042	0.3184	0.3339	Ave		0.3138			0.1000	9.1		20.0			
1,2-Dichloropropane	0.2495 0.2481	0.1942	0.2495	0.2437	0.2470	Ave		0.2387			0.1000	9.2		20.0			
Dibromomethane	0.1552 0.1739	0.1655	0.1743	0.1666	0.1769	Ave		0.1687				4.7		20.0			
1,4-Dioxane	+++++ 0.0032	0.0024	0.0029	0.0030	0.0035	Ave		0.0030				13.8		20.0			
Dichlorobromomethane	0.3054 0.3294	0.2754	0.3271	0.3062	0.3291	Ave		0.3121			0.1500	6.8		20.0			
2-Chloroethyl vinyl ether	0.1560 0.1849	0.1341	0.1797	0.1726	0.1870	Ave		0.1691				12.1		20.0			
cis-1,3-Dichloropropene	0.2523 0.4313	0.2934	0.3728	0.3872	0.4186	Ave		0.3593			0.1500	19.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2026 0.2453	0.2461	0.2500	0.2299	0.2496	Ave		0.2373			0.0500	7.8		20.0			
Toluene	1.4206 1.4774	1.4725	1.5025	1.4923	1.5137	Ave		1.4798			0.4000	2.2		20.0			
trans-1,3-Dichloropropene	0.2796 0.5131	0.2726	0.4215	0.4591	0.4920	Lin1	-0.174	0.4989			0.1000				0.9970		0.9900
Ethyl methacrylate	0.3130 0.4707	0.3237	0.4263	0.4409	0.4731	Ave		0.4079				17.6		20.0			
1,1,2-Trichloroethane	0.3081 0.2999	0.2772	0.3080	0.3024	0.3068	Ave		0.3004			0.1000	3.9		20.0			
1,3-Dichloropropane	0.6075 0.5716	0.5788	0.5768	0.5793	0.5784	Ave		0.5821				2.2		20.0			
Tetrachloroethene	0.3586 0.3405	0.3383	0.3436	0.3387	0.3416	Ave		0.3436			0.1500	2.2		20.0			
2-Hexanone	0.2018 0.2018	0.1934	0.2073	0.1915	0.2197	Ave		0.2026			0.0500	5.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

SAMPLE CALCULATION - SVOC	WATER	
SAMPLE IDENTIFICATION	MRC-MW113A-032917	
COMPOUND	1,4-Dioxane	
COMPOUND AREA	85713	
INTERNAL STANDARD AMOUNT (ng)	0.5	
INTERNAL STANDARD AREA	197624	
AVERAGE RRF	0.6245	
85713 x 0.5 x 1 / 197624 x 0.6245	0.3473	ng/ul
DILUTION FACTOR	1	
SAMPLE VOLUME (ml)	100	
VOLUME EXTRACT (ml)	2	
µl in 1ml	1000	
0.347251853217181 x 1 x 1000 x 2 / (100)	6.9	ug/L

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW113A-032917 | Lab Sample ID: 240-77416-4

Matrix: Water | Lab File ID: Z24775_46.D

Analysis Method: 522 | Date Collected: 03/29/2017 12:55

Extract. Method: 3535A | Date Extracted: 04/17/2017 21:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/18/2017 22:07

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 115901 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	6.9		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	81		46-130

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHZ.i\20170418-24775.b\Z24775_46.D
Lims ID: 240-77416-D-4-A
Client ID: MRC-MW113A-032917
Sample Type: Client
Inject. Date: 18-Apr-2017 22:07:30 ALS Bottle#: 46 Worklist Smp#: 46
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 200-0024775-046
Operator ID: tpb Instrument ID: CHZ.i

Method: \\ChromNA\Burlington\ChromData\CHZ.i\20170418-24775.b\522_MOD_Z.m
Limit Group: SV_522_Limits
Last Update: 19-Apr-2017 12:55:20 Calib Date: 08-Mar-2017 12:03:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\CHZ.i\20170308-24230.b\Z24230_08.D

Column 1 : Rxi-5ms (0.25 mm) Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: puangmaleek Date: 19-Apr-2017 12:56:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 Tetrahydrofuran-d8	46	3.186	3.228	-0.042	96	197624	0.5000	
$ 2 1,4-Dioxane-d8 (Surr)	64	4.127	4.150	-0.023	95	19377	0.0812	
3 1,4-Dioxane	58	4.162	4.192	-0.030	98	85713	0.3473	
$ 4 BFB								

Reagents:

SV522ISi_00032 Amount Added: 4.00 Units: uL Run Reagent

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-77416-1 Analy Batch No.: 114713

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/08/2017 10:20 Calibration End Date: 03/08/2017 12:03 Calibration ID: 36785

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-114713/8	Z24230_08.D
Level 2	IC 200-114713/7	Z24230_07.D
Level 3	IC 200-114713/6	Z24230_06.D
Level 4	ICIS 200-114713/5	Z24230_05.D
Level 5	IC 200-114713/4	Z24230_04.D
Level 6	IC 200-114713/3	Z24230_03.D
Level 7	IC 200-114713/2	Z24230_02.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.6109 0.6090	0.6178 0.6496	0.6614	0.6232	0.5995	Ave		0.6245			0.0500	3.6		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.5916 0.6224	0.6040 0.6143	0.6121	0.6058	0.5756	Ave		0.6037				2.6		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

SAMPLE CALCULATION - OVG	WATER
SAMPLE IDENTIFICATION	MRC-MW21B-040317
COMPOUND	Methane
COMPOUND AREA	179675
AVERAGE RRF	15344.897
179675 x 1 / 15344.897	11.7 ug/L

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW21B-040317 Lab Sample ID: 240-77601-2

Matrix: Water Lab File ID: RSK0412007.D

Analysis Method: RSK-175 Date Collected: 04/03/2017 10:25

Sample wt/vol: 33(mL) Date Analyzed: 04/12/2017 14:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 274378 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-85-1	Ethene	0.33	J	0.50	0.13
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	12		0.50	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	92		76-121

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\ZPID\20170412-63980.b\RSK0412007.D
Lims ID: 240-77601-D-2
Client ID: MRC-MW21B-040317
Sample Type: Client
Inject. Date: 12-Apr-2017 14:31:00 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0063980-007
Operator ID: Instrument ID: ZPID

Method: \\ChromNA\Canton\ChromData\ZPID\20170412-63980.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 13-Apr-2017 06:21:09 Calib Date: 15-Oct-2016 16:22:19
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\ZPID\20161015-59048.b\RSK0101508.D

Column 1 : Det: GC FID1A
Process Host: XAWRK034

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1	Methane					
	1.178	1.177	0.001	179675	11.7	
2	Ethylene					
	1.875	1.873	0.002	4552	0.3349	
4	Ethane					
		2.193			ND	
$ 5	1,1,1-Trifluoroethane					
	3.335	3.333	0.002	24456220	3131.5	

Reagents:

SARSKSURR_00010 Amount Added: 10.00 Units: mL Run Reagent

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77416-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Methane	17282 15031	14572 14891	15021	15273	Ave		15344.8970				6.4		30.0			
Ethene	13272 13787	13164 13601	13786	13941	Ave		13591.7814				2.3		30.0			
Acetylene	6429.5 6415.6	5892.3 6088.3	6401.9	6607.6	Ave		6305.86557				4.2		30.0			
Ethane	13684 14544	13730 14408	14353	14588	Ave		14217.7545				2.9		30.0			
Propane	13814 15013	13864 14908	14731	14670	Ave		14499.9021				3.6		30.0			
1,1,1-Trifluoroethane	7519.7 7756.9	8027.5	7602.5	8141.8	Ave		7809.65873				3.4		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

SAMPLE CALCULATION - PCB HOMOLOGS	WATER	
SAMPLE IDENTIFICATION	MRC-MW114A-032917	
COMPOUND	Monochlorobiphenyl	
COMPOUND AREA	574	
INTERNAL STANDARD AMOUNT (ng)	0.75	
INTERNAL STANDARD AREA	58233	
AVERAGE RRF	0.7017	
574 x 0.75 x 1 / 58233 x 0.7017	0.0105	ng/ul
DILUTION FACTOR	1	
SAMPLE VOLUME (ml)	1042	
VOLUME EXTRACT (ml)	1	
µl in 1ml	1000	
0.0105354360419117 x 1 x 1000 x 1 / (1042)	0.010	ug/L

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77416-1

SDG No.:

Client Sample ID: MRC-MW114A-032917 | Lab Sample ID: 240-77416-3

Matrix: Water | Lab File ID: xd1422.D

Analysis Method: 680 | Date Collected: 03/29/2017 11:50

Extract. Method: 680 | Date Extracted: 04/07/2017 14:58

Sample wt/vol: 1042(mL) | Date Analyzed: 04/14/2017 18:20

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 476005 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.036	U	0.29	0.036
27323-18-8	Monochlorobiphenyl	0.010	J	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.012	U	0.19	0.012
25323-68-6	Trichlorobiphenyl	0.0062	U	0.096	0.0062

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	76		25-113

TestAmerica Savannah
Target Compound Quantitation Report

Data File: \\ChromNA\Savannah\ChromData\CMSX\20170414-37809.b\xd1422.D
Lims ID: 240-77416-F-3-A
Client ID: MRC-MW114A-032917
Sample Type: Client
Inject. Date: 14-Apr-2017 18:20:30 ALS Bottle#: 19 Worklist Smp#: 20
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 240-77416-F-3-A
Misc. Info.: 680-0037809-020
Operator ID: Instrument ID: CMSX

Method: \\ChromNA\Savannah\ChromData\CMSX\20170414-37809.b\680_CMSX.m
Limit Group: 680 - AQ
Last Update: 17-Apr-2017 16:26:14 Calib Date: 14-Apr-2017 12:05:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Savannah\ChromData\CMSX\20170414-37809.b\xd1409.D

Column 1 : HP-5MS (0.25 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: davisn Date: 17-Apr-2017 16:24:09

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/ml	Flags
A 23 Total Monochlorobiphenyls	188	7.614	7.154 - 8.075		0	574	0.0105	
* 5 Phenanthrene-d10	188	10.023	10.023	0.0	100	47282	0.7500	
* 15 Chrysene-d12	240	16.105	16.105	0.0	100	58233	0.7500	
$ 22 Decachlorobiphenyl-13C12	510	19.275	19.275	0.0	48	7989	1.91	

Reagents:

SM-680istd_00041 Amount Added: 30.00 Units: uL Run Reagent

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-77416-1 Analy Batch No.: 476005

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/14/2017 10:10 Calibration End Date: 04/14/2017 12:05 Calibration ID: 51808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-476005/7	xd1408.D
Level 2	IC 680-476005/6	xd1407.D
Level 3	ICISAV 680-476005/23	xd1409.D
Level 4	IC 680-476005/5	xd1406.D
Level 5	IC 680-476005/4	xd1405.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.7495	0.6443	0.6598	0.7450	0.7100	Ave		0.7017				6.9		20.0			
Dichlorobiphenyl	0.5516	0.4767	0.4878	0.5531	0.5443	Ave		0.5227				7.1		20.0			
Trichlorobiphenyl	0.3741	0.3519	0.3529	0.3890	0.3888	Ave		0.3713				4.9		20.0			
PCB-104			0.3265			Ave		0.3265						30.0			
Tetrachlorobiphenyl	0.2803	0.2586	0.2561	0.2834	0.2806	Ave		0.2718				4.9		20.0			
Pentachlorobiphenyl	0.2420	0.2193	0.2239	0.2414	0.2474	Ave		0.2348				5.3		20.0			
PCB-77			0.4094			Ave		0.4094						30.0			
Hexachlorobiphenyl	0.2535	0.2260	0.2333	0.2405	0.2456	Ave		0.2397				4.4		20.0			
Heptachlorobiphenyl	0.2188	0.1999	0.2010	0.2198	0.2170	Ave		0.2113				4.7		20.0			
Octachlorobiphenyl	0.2004	0.1857	0.1874	0.1948	0.2065	Ave		0.1950				4.5		20.0			
PCB-208			0.0788			Ave		0.0788						30.0			
Nonachlorobiphenyl			0.0630			Ave		0.0419				3.0		20.0			
DCB Decachlorobiphenyl	0.0427	0.0423	0.0434	0.0402	0.0411	Ave		0.0419				3.0		20.0			
gamma-BHC-13C6 (Surr)	0.1567	0.1496	0.1501	0.1704	0.1227	Ave		0.1499				11.6		50.0			
Decachlorobiphenyl-13C12	0.0504	0.0541	0.0567	0.0535	0.0544	Ave		0.0538				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW14C-033017 Lab Sample ID: 240-77566-2

Lab Name: TestAmerica Canton Job No.: 240-77416-1

SDG ID.:

Matrix: Water Date Sampled: 03/30/2017 10:05

Reporting Basis: WET Date Received: 04/01/2017 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.9	2.0	0.27	ug/L	J	B	1	6020A
7440-38-2	Arsenic	0.93	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	77	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	8.6	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	2.0	2.0	0.26	ug/L			1	6020A
7440-50-8	Copper	1.4	2.0	0.36	ug/L	J	B	1	6020A
7439-98-7	Molybdenum	0.52	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	14	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	0.91	1.0	0.16	ug/L	J	B	1	6020A
7782-49-2	Selenium	0.64	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	2.3	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	15	20	6.2	ug/L	J	B	1	6020A
7440-22-4	Silver	0.093	1.0	0.030	ug/L	J	B	1	6020A

Sample Report

Sample Table

Sample Name	240-77566-f-2-a
Data File Name	054SMPL.d
Data Path Name	D:\Analytical Runs\I10040417D.b
Acq Date Time	2017-04-04T16:05:26-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	6	2	NoGas	40.518	40.518	2.26	2227388	0.00	10000	
Be	9	6	2	NoGas	0.379	0.379	8.64	4575	0.01	2000	
B	11	45	2	NoGas	23.493	23.493	1.99	284827	0.01	300	
Na	23	45	1	He	83440.910	83440.910	2.94	99913659	0.08	500000	
Mg	24	45	1	He	4678.535	4678.535	2.89	2799989	0.17	500000	
Al	27	45	1	He	725.926	725.926	4.21	159552	0.45	200000	
K	39	45	1	He	7394.755	7394.755	2.16	3012383	0.25	500000	
Ca	44	45	1	He	7016.705	7016.705	3.51	154816	4.53	500000	
Ti	47	45	1	He	20.453	20.453	36.85	3421	0.60	2500	
V	51	45	1	He	2.289	2.289	3.50	13443	0.02	10000	
Cr	52	45	1	He	2.044	2.044	2.40	16200	0.01	10000	
Mn	55	45	1	He	934.587	934.587	1.75	3706292	0.03	10000	
Fe	56	45	1	He	9266.694	9266.694	3.77	52308463	0.02	200000	
Co	59	45	1	He	8.591	8.591	3.36	109498	0.01	5000	
Ni	60	45	1	He	13.943	13.943	4.60	48073	0.03	10000	
Cu	63	45	1	He	1.366	1.366	6.73	14469	0.01	10000	
Zn	66	45	1	He	15.279	15.279	4.44	22380	0.07	10000	
As	75	115	1	He	0.926	0.926	8.48	847	0.11	10000	
Se	78	115	1	He	0.639	0.639	3.92	55	1.16	10000	
Sr	88	103	1	He	37.652	37.652	1.29	168486	0.02	10000	
Mo	95	103	1	He	0.521	0.521	4.44	2498	0.02	2000	
Ag	107	103	1	He	0.093	0.093	18.02	1590	0.01	300	
Cd	111	115	1	He	0.260	0.260	19.63	588	0.04	4000	
Sn	118	115	1	He	2.330	2.330	16.64	13431	0.02	2000	
Sb	123	115	1	He	1.885	1.885	0.96	8200	0.02	200	
Ba	137	115	1	He	77.220	77.220	1.45	139239	0.06	10000	
W	182	159	1	He	0.509	0.509	1.05	10455	0.00	2500	
Tl	205	165	1	He	0.199	0.199	16.05	8533	0.00	2000	
Pb	208	165	1	He	0.911	0.911	6.26	49809	0.00	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	7111948	0.82	7661563	92.83	60	120	
Sc	45	1	He	1043096	3.17	1058074	98.58	60	120	
Sc	45	2	NoGas	26869724	0.73	26740581	100.48	60	120	
Rh	103	1	He	6108443	0.52	6623129	92.23	60	120	
In	115	1	He	2289829	1.39	2409428	95.04	60	120	
Tb	159	1	He	9022601	0.81	9278517	97.24	60	120	
Ho	165	1	He	9239682	1.22	9506897	97.19	60	120	
Bi	209	1	He	7101296	3.14	7322841	96.97	60	120	

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JUNE 21, 2017**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs, 1,4-DIOXANE, DISSOLVED GASES, METALS, MISCELLANEOUS**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC) GROUNDWATER
SDG 240-77879-1

SAMPLES:

14/Aqueous
VOCs

MRC-MW11A-040717	MRC-MW11C-041117	MRC-MW29A-040717
MRC-MW12A-041117	MRC-MW41A-041117	MRC-MW71A-040617
MRC-MW71B-040617	MRC-MW69A-041117	MRC-MW77A-040717
MRC-MW87B-040617	MRC-SWMW-1I-041017	MRC-MW87A-040717
MRC-MW69B-041117	MRC-SWMW-2I-041017	MRC-SWMW-3I-041017
MRC-SWMW-4I-041117	MRC-SWMW-4S-041117	MRC-SWMW-5I-041017

12/Aqueous
1,4-Dioxane

MRC-DUP07-040717	MRC-MW11A-040717	MRC-MW15A-040717
MRC-MW69A-041117	MRC-MW71A-040617	MRC-MW71B-040617
MRC-MW87A-040717	MRC-MW11C-041117	MRC-MW87B-040617
MRC-MW12A-041117	MRC-MW41A-041117	MRC-MW69B-041117

1/Aqueous
Dissolved Gases, Alkalinity, Ammonia, Chloride, Dissolved Organic Carbon, Nitrate, Nitrite, Orthophosphate, Sulfate, Total Dissolved Solids
MRC-MW12A-041117

6/Aqueous
Metals

MRC-MW11A-040717	MRC-DUP08-041117	MRC-MW11C-041117
MRC-MW12A-041117	MRC-MW71A-040617	MRC-MW71B-040617

3/Trip Blank
VOCs

TB-041017	TB-040617	TB-041117

Overview

The sample set for LMC-MRC Groundwater, SDG 240-77879-1 consisted of seventeen (17) aqueous environmental samples and three (3) trip blanks analyzed for the aforementioned parameters. Two (2) field duplicate sample pair MRC-MW15A-040717 / MRC-DUP07-040717 and MRC-MW11C-041117 / MRC-DUP08-041117 were associated with this SDG.

The samples were collected by Tetra Tech, Inc. on April 6, 7, 10 and 11, 2017 and analyzed by TestAmerica-Canton and TestAmerica-Burlington. All analyses were conducted in accordance with SW-846 Methods 8260C, 6010C, 6020A, 7470A and 9060, EPA method 522, method RSK-175, Standard Methods 2320B-1997, 4500 NH3 C-1997, 4500 P E-1999, 2540C and 4500 P E and Methods for Chemical Analysis of Water and Wastes 300.0 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness,

holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/preparation/trip blank results, Interference Check Sample (ICS) recoveries, surrogate spike recoveries, laboratory control sample / laboratory control sample duplicate results, matrix spike / matrix spike duplicate recoveries, ICP serial dilution results, laboratory duplicate results, field duplicate results, internal standard areas and recoveries, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The VOC continuing calibration associated with preparation batch 240-274127 performed on instrument A3UX9 on 04/11/17 @ 8:51 had percent differences (%Ds) for 1.1.2-trichlorotrifluoroethane, carbon disulfide and methyl cyclohexane which exceeded the quality control limit. Samples MRC-MW11A-040717, MRC-MW29A-040717, MRC-MW71A-040617, MRC-MW71B-040617, MRC-MW77A-040717, MRC-MW87B-040617, MRC-MW87A-040717 and TB-040617 were affected. The non-detected result reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

- The VOC continuing calibration associated with preparation batch 240-274539 performed on instrument A3UX9 on 04/13/17 @ 9:42 had a %D for carbon disulfide which exceeded the quality control limit. Samples MRC-SWMW-1I-041017, TB-041017, MRC-SWMW-2I-041017, MRC-SWMW-3I-041017 and MRC-SWMW-5I-041017 were affected. The non-detected results reported for carbon disulfide in the affected samples were qualified as estimated, (UJ).

- The VOC continuing calibration associated with preparation batch 240-274915 performed on instrument A3UX9 on 04/17/17 @ 9:26 had %Ds for 1,1,2-trichlorotrifluoroethane and carbon disulfide which exceeded the quality control limit. Samples MRC-MW11C-041117, MRC-MW12A-041117, MRC-MW41A-041117, MRC-MW69A-041117, MRC-MW69B-041117, MRC-SWMW-4I-041117, MRC-SWMW-4S-041117 and TB-041117 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

- The following compounds were detected in the trip blank at the maximum concentration indicated below:

Compound	Concentration	Action Level
Methylene Chloride(1)	0.892 ug/L	8.92 ug/L
Methylene Chloride(1)	1.79 ug/L	17.9 ug/L
Methylene Chloride(1)	0.693 ug/L	6.93 ug/L

(1) Maximum concentration present in method blank associated with preparation batch 240-274127 affecting samples MRC-MW11A-040717, MRC-MW29A-040717, MRC-MW71A-040617, MRC-MW71B-040617, MRC-MW77A-040717, MRC-MW87B-040617, MRC-MW87A-040717 and TB-040617.

(2) Maximum concentration present in method blank associated with preparation batch 240-274539 affecting samples MRC-SWMW-1I-041017, TB-041017, MRC-SWMW-2I-041017, MRC-SWMW-3I-041017 and MRC-SWMW-5I-041017.

(3) Maximum concentration present in method blank associated with preparation batch 240-274915 affecting samples MRC-MW11C-041117, MRC-MW12A-041117, MRC-MW41A-041117, MRC-MW69A-041117, MRC-MW69B-041117, MRC-SWMW-4I-041117, MRC-SWMW-4S-041117 and TB-041117.

An action level of 10X the maximum concentration was established to evaluate for blank contamination. Dilution factors, if necessary, were taken into consideration during the application of the action level. The detected results reported for methylene chloride were qualified as nondetected, (U). Field blanks are not qualified for method blank contamination.

- The following analytes were detected in the laboratory instrument/method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Reporting Limit (RL) > or <
Antimony(1)	0.150 ug/L	< RL
Beryllium(1)	0.0630 ug/L	< RL
Cadmium(1)	0.0720 ug/L	< RL
Cobalt(1)	0.0270 ug/L	< RL
Lead(1)	0.117 ug/L	< RL
Molybdenum(1)	0.624 ug/L	< RL
Barium(2)	1.08 ug/L	< RL
Copper(2)	0.719 ug/L	< RL
Iron(2)	18.9 ug/L	< RL
Manganese(2)	0.326 ug/L	< RL
Nickel(2)	0.770 ug/L	< RL
Antimony(3)	0.646 ug/L	< RL
Beryllium(3)	0.134 ug/L	< RL
Cadmium(3)	0.080 ug/L	< RL
Cobalt(3)	0.025 ug/L	< RL
Lead(3)	0.287 ug/L	< RL
Molybdenum(3)	0.265 ug/L	< RL
Silver(3)	0.0240nug/L	< RL
Barium(4)	1.05 ug/L	< RL
Copper(4)	0.556 ug/L	< RL
Iron(4)	14.9 ug/L	< RL
Manganese(4)	0.459 ug/L	< RL

(1) Maximum concentration present in an instrument blank associated with preparation batch 240-274206 affecting samples MRC-MW71B-040617, MRC-MW71A-040617, and MRC-MW11A-040717.
(2) Maximum concentration present in a method blank associated with preparation batch 240-274206 affecting samples MRC-MW71B-040617, MRC-MW71A-040617, and MRC-MW11A-040717.
(3) Maximum concentration present in an instrument blank associated with preparation batch 240-274588 affecting samples MRC-MW11C-041117, MRC-MW12A-041117, and MRC-DUP08-041117.
(4) Maximum concentration present in a method blank associated with preparation batch 240-274588 affecting samples MRC-MW11C-041117, MRC-MW12A-041117, and MRC-DUP08-041117.

The detected results reported below the reporting limit (RL) for were qualified as non-detected, (U).

- Detected results reported below the RL but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Samples MRC-MW71B-040617 and MRC-SWMW-3I-041017 were analyzed at a dilution for the VOC analyses. Samples MRC-MW71B-040617 and MRC-MW12A-041117 were analyzed at a dilution for the 1,4-dioxane analyses. Sample MRC-MW12A-041117 was analyzed at a dilution for methane. The detection limits of the non-detected results were elevated.

For the metals analyses, calcium, magnesium, potassium, silicon dioxide and sodium were analyzed by SW-846 method 6010C for sample MRC-MW12A-041117. The remaining metals, with the exception of mercury, were analyzed by SW-846 method 6020A.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Several CCV %Ds were noncompliant for the VOC fraction. Contaminants were detected in the laboratory instrument/method/preparation blanks.

Other Factors Affecting Data Quality: Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and the "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-MW11A-040717			MRC-MW11C-041117			MRC-MW12A-041117			MRC-MW29A-040717		
SDG: 240-77879-1	LAB_ID	240-77879-8			240-77967-6			240-77967-8			240-77879-5		
FRACTION: OV	SAMP_DATE	4/7/2017			4/11/2017			4/11/2017			4/7/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C	0.41	UJ	C	0.41	UJ	C	0.41	UJ	C
1,1-DICHLOROETHANE		0.25	U		0.25	U		3.4			3.7		
1,1-DICHLOROETHENE		0.27	U		0.27	U		3.8			1.8		
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		2			0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		2.2	J	P	1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		2.8	J	P	1.8	U	
BENZENE		0.28	U		0.28	U		4.8			0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	0.34	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		9.5			0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		3.8			3.7		
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW41A-041117			MRC-MW69A-041117			MRC-MW69B-041117			MRC-MW71A-040617		
SDG: 240-77879-1	LAB_ID	240-77967-7			240-77967-5			240-77967-3			240-77879-3		
FRACTION: OV	SAMP_DATE	4/11/2017			4/11/2017			4/11/2017			4/6/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C	0.41	UJ	C	0.41	UJ	C	0.41	UJ	C
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	J	P
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		2.5	J	P
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	0.34	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW71B-040617			MRC-MW77A-040717			MRC-MW87A-040717			MRC-MW87B-040617		
SDG: 240-77879-1	LAB_ID	240-77879-2			240-77879-6			240-77879-9			240-77879-4		
FRACTION: OV	SAMP_DATE	4/6/2017			4/7/2017			4/7/2017			4/6/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	J	P	0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.4	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.43	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.51	UJ	C	0.41	UJ	C	0.41	UJ	C	0.41	UJ	C
1,1-DICHLOROETHANE		6.9			11			0.25	U		0.25	U	
1,1-DICHLOROETHENE		68			1.4			0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.34	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.59	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.29	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.33	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.74	J	P	0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.38	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.4	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.29	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1.3	U		1	U		1	U		1	U	
2-HEXANONE		1.5	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.89	U		0.71	U		0.71	U		0.71	U	
ACETONE		2.2	U		1.8	U		1.8	U		25		
BENZENE		0.35	U		11			0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.38	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.54	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.53	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.43	UJ	C	0.34	UJ	C	0.34	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.44	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.4	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.31	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.51	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.39	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.54	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		11			2.3			0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.33	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.55	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.63	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.33	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.26	U		0.4	J	P	0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-SWMW-1I-041017			MRC-SWMW-2I-041017			MRC-SWMW-3I-041017			MRC-SWMW-4I-041117		
SDG: 240-77879-1	LAB_ID	240-77931-2			240-77931-3			240-77931-4			240-77967-4		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/11/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		2.3	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		3.2	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		3.4	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		4.1	U		0.41	UJ	C
1,1-DICHLOROETHANE		4.9			2.8			6.4	J	P	2.5		
1,1-DICHLOROETHENE		0.27	U		0.27	U		53			0.31	J	P
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		2.7	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		4.7	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		2.3	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		2.6	U		0.26	U	
1,2-DICHLOROETHANE		0.38	J	P	0.66	J	P	3	U		1.3		
1,2-DICHLOROPROPANE		0.3	U		0.3	U		3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		3.2	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		2.3	U		0.23	U	
2-BUTANONE		1	U		1	U		10	U		4.3	J	P
2-HEXANONE		1.2	U		1.2	U		12	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		7.1	U		1.6	J	P
ACETONE		1.8	U		1.8	U		18	U		1.8	U	
BENZENE		2.2			9.2			7	J	P	2.7		
BROMODICHLOROMETHANE		0.3	U		0.3	U		3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		4.3	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		4.2	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	3.4	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U		3.5	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		3.2	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		2.5	U		0.25	U	
CHLOROETHANE		0.69	J	P	14			4.1	U		13		
CHLOROFORM		0.31	U		0.31	U		3.1	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		4.3	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.44	J	P	260			3.3		
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		2.6	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		4.4	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		2.6	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.29	J	P	2.1	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-SWMW-4S-041117			MRC-SWMW-5I-041017			TB-040617			TB-041017		
SDG: 240-77879-1	LAB_ID	240-77967-2			240-77931-5			240-77879-1			240-77931-1		
FRACTION: OV	SAMP_DATE	4/11/2017			4/10/2017			4/6/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C	0.41	U		0.41	UJ	C	0.41	U	
1,1-DICHLOROETHANE		4.5			3.1			0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.65	J	P	0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.36	J	P	0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		29			1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		1			4.1			0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	0.34	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		5.8			0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		2.3			0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	TB-041117		
SDG: 240-77879-1	LAB_ID	240-77967-1		
FRACTION: OV	SAMP_DATE	4/11/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C
1,1-DICHLOROETHANE		0.25	U	
1,1-DICHLOROETHENE		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U	
1,2-DIBROMOETHANE		0.23	U	
1,2-DICHLOROBENZENE		0.26	U	
1,2-DICHLOROETHANE		0.3	U	
1,2-DICHLOROPROPANE		0.3	U	
1,3-DICHLOROBENZENE		0.32	U	
1,4-DICHLOROBENZENE		0.23	U	
2-BUTANONE		1	U	
2-HEXANONE		1.2	U	
4-METHYL-2-PENTANONE		0.71	U	
ACETONE		1.8	U	
BENZENE		0.28	U	
BROMODICHLOROMETHANE		0.3	U	
BROMOFORM		0.43	U	
BROMOMETHANE		0.42	U	
CARBON DISULFIDE		0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U	
CHLOROBENZENE		0.32	U	
CHLORODIBROMOMETHANE		0.25	U	
CHLOROETHANE		0.41	U	
CHLOROFORM		0.31	U	
CHLOROMETHANE		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U	
CYCLOHEXANE		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U	
ETHYLBENZENE		0.26	U	
ISOPROPYLBENZENE		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW11A-040717			MRC-MW11C-041117			MRC-MW12A-041117			MRC-MW29A-040717		
SDG: 240-77879-1	LAB_ID	240-77879-8			240-77967-6			240-77967-8			240-77879-5		
FRACTION: OV	SAMP_DATE	4/7/2017			4/11/2017			4/11/2017			4/7/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	UJ	C	0.45	U		0.45	U		0.45	UJ	C
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		4.4		
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.51	J	P	0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		0.33	U		0.33	U		11		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		8.3			0.56	J	P

PROJ_NO: 07776	NSAMPLE	MRC-MW41A-041117			MRC-MW69A-041117			MRC-MW69B-041117			MRC-MW71A-040617		
SDG: 240-77879-1	LAB_ID	240-77967-7			240-77967-5			240-77967-3			240-77879-3		
FRACTION: OV	SAMP_DATE	4/11/2017			4/11/2017			4/11/2017			4/6/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	UJ	C
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		0.33	U		0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW71B-040617			MRC-MW77A-040717			MRC-MW87A-040717			MRC-MW87B-040617		
SDG: 240-77879-1	LAB_ID	240-77879-2			240-77879-6			240-77879-9			240-77879-4		
FRACTION: OV	SAMP_DATE	4/6/2017			4/7/2017			4/7/2017			4/6/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.8	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.56	UJ	C	0.45	UJ	C	0.45	UJ	C	0.45	UJ	C
METHYL TERT-BUTYL ETHER		0.34	U		74			0.27	U		0.27	U	
METHYLENE CHLORIDE		2.5	U	A	0.54	U	A	0.53	U		0.53	U	
STYRENE		0.29	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.7	J	P	0.3	U		0.3	U		0.3	U	
TOLUENE		0.29	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.3	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.36	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.39	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		81			5			0.33	U		17		
TRICHLOROFLUOROMETHANE		0.63	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.56	U		0.84	J	P	0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-SWMW-1I-041017			MRC-SWMW-2I-041017			MRC-SWMW-3I-041017			MRC-SWMW-4I-041117		
SDG: 240-77879-1	LAB_ID	240-77931-2			240-77931-3			240-77931-4			240-77967-4		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/11/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		14	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		4.5	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		2.7	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		17	U	A	0.53	U	
STYRENE		0.23	U		0.23	U		2.3	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		2.3	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		2.4	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.38	J	P	0.29	U		2.9	U		0.29	J	P
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		3.1	U		0.31	U	
TRICHLOROETHENE		0.83	J	P	1			5.1	J	P	0.44	J	P
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		5	U		0.5	U	
VINYL CHLORIDE		2.8			3.7			12			2.5		

PROJ_NO: 07776	NSAMPLE	MRC-SWMW-4S-041117			MRC-SWMW-5I-041017			TB-040617			TB-041017		
SDG: 240-77879-1	LAB_ID	240-77967-2			240-77931-5			240-77879-1			240-77931-1		
FRACTION: OV	SAMP_DATE	4/11/2017			4/10/2017			4/6/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	UJ	C	0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.92	J	P	0.49	J	P	0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		2.1			1			0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		1.4			0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	TB-041117		
SDG: 240-77879-1	LAB_ID	240-77967-1		
FRACTION: OV	SAMP_DATE	4/11/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
METHYL ACETATE		1.4	U	
METHYL CYCLOHEXANE		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U	
METHYLENE CHLORIDE		0.53	U	
STYRENE		0.23	U	
TETRACHLOROETHENE		0.3	U	
TOLUENE		0.23	U	
TOTAL XYLENES		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U	
TRICHLOROETHENE		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U	
VINYL CHLORIDE		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-DUP07-040717			MRC-MW11A-040717			MRC-MW11C-041117			MRC-MW12A-041117		
SDG: 240-77879-1	LAB_ID	240-77879-10			240-77879-8			240-77967-6			240-77967-8		
FRACTION: OS	SAMP_DATE	4/7/2017			4/7/2017			4/11/2017			4/11/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW15A-040717											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		10			0.14	J	P	0.057	U		150		

PROJ_NO: 07776	NSAMPLE	MRC-MW15A-040717			MRC-MW41A-041117			MRC-MW69A-041117			MRC-MW69B-041117		
SDG: 240-77879-1	LAB_ID	240-77879-7			240-77967-7			240-77967-5			240-77967-3		
FRACTION: OS	SAMP_DATE	4/7/2017			4/11/2017			4/11/2017			4/11/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		7.4			0.45			6.3			0.49		

PROJ_NO: 07776	NSAMPLE	MRC-MW71A-040617			MRC-MW71B-040617			MRC-MW87A-040717			MRC-MW87B-040617		
SDG: 240-77879-1	LAB_ID	240-77879-3			240-77879-2			240-77879-9			240-77879-4		
FRACTION: OS	SAMP_DATE	4/6/2017			4/6/2017			4/7/2017			4/6/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.12	J	P	35			0.75			0.15	J	P

PROJ_NO: 07776	NSAMPLE	MRC-MW12A-041117		
SDG: 240-77879-1	LAB_ID	240-77967-8		
FRACTION: OVG	SAMP_DATE	4/11/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ETHANE		13		
ETHENE		17		
METHANE		8000		

PROJ_NO: 07776	NSAMPLE	MRC-DUP08-041117			MRC-MW11A-040717			MRC-MW11C-041117			MRC-MW12A-041117		
SDG: 240-77879-1	LAB_ID	240-77967-9			240-77879-8			240-77967-6			240-77967-8		
FRACTION: M	SAMP_DATE	4/11/2017			4/7/2017			4/11/2017			4/11/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW11C-041117											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.45	U	A	8			0.99	U	A	4.9		
ARSENIC		0.35	U		2.3	J	P	0.38	J	P	12		
BARIUM		11			40			11			280		
BERYLLIUM		0.4	U		0.4	U		0.4	U		7		
CADMIUM		0.31	U		0.32	U	A	0.31	U		0.35	U	A
CALCIUM											25000		
CHROMIUM		0.77	J	P	10			0.87	J	P	82		
COBALT		3.1			1.9			3.4			33		
COPPER		0.89	U	A	10			1.1	U	A	52		
IRON		130						140			180000		
LEAD		0.51	U	A	13			0.73	U	A	50		
MAGNESIUM											14000		
MANGANESE		36						39			4200		
MERCURY		0.13	U		0.13	U		0.13	U		0.17	J	P
MOLYBDENUM		0.51	U		3.2	U	A	0.51	U		2.6	U	A
NICKEL		9			7.5			9.3			80		
POTASSIUM											9900		
SELENIUM		0.48	U		1.7	J	P	0.5	J	P	5.2		
SILICON DIOXIDE											92000		
SILVER		0.03	U		0.17	J	P	0.03	U		0.28	U	A
SODIUM											22000		
THALLIUM		0.28	U		0.28	U		0.28	U		0.36	J	P
VANADIUM		0.54	U		16			0.64	J	P	120		
ZINC		20			52			20			360		

PROJ_NO: 07776	NSAMPLE	MRC-MW71A-040617			MRC-MW71B-040617		
SDG: 240-77879-1	LAB_ID	240-77879-3			240-77879-2		
FRACTION: M	SAMP_DATE	4/6/2017			4/6/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		8.2			0.71	U	A
ARSENIC		2.3	J	P	0.35	U	
BARIUM		95			84		
BERYLLIUM		0.63	U	A	0.4	U	
CADMIUM		0.94	U	A	0.31	U	
CALCIUM							
CHROMIUM		16			0.26	U	
COBALT		3.4			61		
COPPER		15			0.36	U	
IRON							
LEAD		23			0.21	U	A
MAGNESIUM							
MANGANESE							
MERCURY		0.13	U		0.13	U	
MOLYBDENUM		3.4	U	A	0.51	U	
NICKEL		16			74		
POTASSIUM							
SELENIUM		2	J	P	0.48	U	
SILICON DIOXIDE							
SILVER		0.35	J	P	0.03	U	
SODIUM							
THALLIUM		0.28	U		0.28	U	
VANADIUM		30			0.54	U	
ZINC		480			150		

PROJ_NO: 07776	NSAMPLE	MRC-MW12A-041117		
SDG: 240-77879-1	LAB_ID	240-77967-8		
FRACTION: MISC	SAMP_DATE	4/11/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ALKALINITY		160		
AMMONIA		1.7	J	P
CHLORIDE		57		
DISSOLVED ORGANIC CARBON		14		
NITRATE-N		0.36		
NITRITE-N		0.038	U	
ORTHOPHOSPHATE-P		0.083	J	P
SULFATE		11		
TOTAL DISSOLVED SOLIDS		380		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: TB-040617 | Lab Sample ID: 240-77879-1

Matrix: Water | Lab File ID: UX963049.D

Analysis Method: 8260C | Date Collected: 04/06/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 12:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: TB-040617 | Lab Sample ID: 240-77879-1

Matrix: Water | Lab File ID: UX963049.D

Analysis Method: 8260C | Date Collected: 04/06/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 12:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	89		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW71B-040617 | Lab Sample ID: 240-77879-2

Matrix: Water | Lab File ID: UX963050.D

Analysis Method: 8260C | Date Collected: 04/06/2017 09:33

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 12:58

Soil Aliquot Vol: | Dilution Factor: 1.25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1.0	J	1.3	0.29
79-34-5	1,1,2,2-Tetrachloroethane	0.40	U	1.3	0.40
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.51	U	1.3	0.51
79-00-5	1,1,2-Trichloroethane	0.43	U	1.3	0.43
75-34-3	1,1-Dichloroethane	6.9		1.3	0.31
75-35-4	1,1-Dichloroethene	68		1.3	0.34
120-82-1	1,2,4-Trichlorobenzene	0.34	U	1.3	0.34
96-12-8	1,2-Dibromo-3-Chloropropane	0.59	U	2.5	0.59
106-93-4	Ethylene Dibromide	0.29	U	1.3	0.29
95-50-1	1,2-Dichlorobenzene	0.33	U	1.3	0.33
107-06-2	1,2-Dichloroethane	0.74	J	1.3	0.38
78-87-5	1,2-Dichloropropane	0.38	U	1.3	0.38
541-73-1	1,3-Dichlorobenzene	0.40	U	1.3	0.40
106-46-7	1,4-Dichlorobenzene	0.29	U	1.3	0.29
78-93-3	2-Butanone (MEK)	1.3	U	13	1.3
591-78-6	2-Hexanone	1.5	U	13	1.5
108-10-1	4-Methyl-2-pentanone (MIBK)	0.89	U	13	0.89
67-64-1	Acetone	2.2	U	13	2.2
71-43-2	Benzene	0.35	U	1.3	0.35
75-27-4	Dichlorobromomethane	0.38	U	1.3	0.38
75-25-2	Bromoform	0.54	U	1.3	0.54
74-83-9	Bromomethane	0.53	U	1.3	0.53
75-15-0	Carbon disulfide	0.43	U	1.3	0.43
56-23-5	Carbon tetrachloride	0.44	U	1.3	0.44
108-90-7	Chlorobenzene	0.40	U	1.3	0.40
75-00-3	Chloroethane	0.51	U	1.3	0.51
67-66-3	Chloroform	0.39	U	1.3	0.39
74-87-3	Chloromethane	0.54	U	1.3	0.54
156-59-2	cis-1,2-Dichloroethene	11		1.3	0.38
10061-01-5	cis-1,3-Dichloropropene	0.33	U	1.3	0.33
110-82-7	Cyclohexane	0.55	U	1.3	0.55
124-48-1	Chlorodibromomethane	0.31	U	1.3	0.31
75-71-8	Dichlorodifluoromethane	0.63	U	1.3	0.63
100-41-4	Ethylbenzene	0.33	U	1.3	0.33
98-82-8	Isopropylbenzene	0.26	U	1.3	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW71B-040617 | Lab Sample ID: 240-77879-2

Matrix: Water | Lab File ID: UX963050.D

Analysis Method: 8260C | Date Collected: 04/06/2017 09:33

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 12:58

Soil Aliquot Vol: | Dilution Factor: 1.25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.8	U	13	1.8
1634-04-4	Methyl tert-butyl ether	0.34	U	1.3	0.34
108-87-2	Methylcyclohexane	0.56	U	1.3	0.56
75-09-2	Methylene Chloride	2.5	B	1.3	0.66
100-42-5	Styrene	0.29	U	1.3	0.29
127-18-4	Tetrachloroethene	0.70	J	1.3	0.38
108-88-3	Toluene	0.29	U	1.3	0.29
156-60-5	trans-1,2-Dichloroethene	0.36	U	1.3	0.36
10061-02-6	trans-1,3-Dichloropropene	0.39	U	1.3	0.39
79-01-6	Trichloroethene	81		1.3	0.41
75-69-4	Trichlorofluoromethane	0.63	U	1.3	0.63
75-01-4	Vinyl chloride	0.56	U	1.3	0.56
1330-20-7	Xylenes, Total	0.30	U	2.5	0.30

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	87		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW71A-040617 | Lab Sample ID: 240-77879-3

Matrix: Water | Lab File ID: UX963051.D

Analysis Method: 8260C | Date Collected: 04/06/2017 11:59

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 13:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	J	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.5	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW71A-040617 | Lab Sample ID: 240-77879-3

Matrix: Water | Lab File ID: UX963051.D

Analysis Method: 8260C | Date Collected: 04/06/2017 11:59

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 13:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW87B-040617 | Lab Sample ID: 240-77879-4

Matrix: Water | Lab File ID: UX963052.D

Analysis Method: 8260C | Date Collected: 04/06/2017 14:56

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 13:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	25		10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW87B-040617 | Lab Sample ID: 240-77879-4

Matrix: Water | Lab File ID: UX963052.D

Analysis Method: 8260C | Date Collected: 04/06/2017 14:56

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 13:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	17		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-124
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW29A-040717 | Lab Sample ID: 240-77879-5

Matrix: Water | Lab File ID: UX963053.D

Analysis Method: 8260C | Date Collected: 04/07/2017 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 14:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	3.7		1.0	0.25
75-35-4	1,1-Dichloroethene	1.8		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	3.7		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW29A-040717 | Lab Sample ID: 240-77879-5

Matrix: Water | Lab File ID: UX963053.D

Analysis Method: 8260C | Date Collected: 04/07/2017 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 14:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	4.4		1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	11		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.56	J	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW77A-040717 | Lab Sample ID: 240-77879-6

Matrix: Water | Lab File ID: UX963054.D

Analysis Method: 8260C | Date Collected: 04/07/2017 11:08

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 14:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	11		1.0	0.25
75-35-4	1,1-Dichloroethene	1.4		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	11		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	2.3		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.40	J	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW77A-040717 | Lab Sample ID: 240-77879-6

Matrix: Water | Lab File ID: UX963054.D

Analysis Method: 8260C | Date Collected: 04/07/2017 11:08

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 14:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	74		1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.54	J B	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	5.0		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.84	J	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW11A-040717 | Lab Sample ID: 240-77879-8

Matrix: Water | Lab File ID: UX963055.D

Analysis Method: 8260C | Date Collected: 04/07/2017 15:06

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 14:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW11A-040717 | Lab Sample ID: 240-77879-8

Matrix: Water | Lab File ID: UX963055.D

Analysis Method: 8260C | Date Collected: 04/07/2017 15:06

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 14:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	87		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW87A-040717 | Lab Sample ID: 240-77879-9

Matrix: Water | Lab File ID: UX963056.D

Analysis Method: 8260C | Date Collected: 04/07/2017 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 15:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW87A-040717 | Lab Sample ID: 240-77879-9

Matrix: Water | Lab File ID: UX963056.D

Analysis Method: 8260C | Date Collected: 04/07/2017 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 15:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: TB-041017 | Lab Sample ID: 240-77931-1

Matrix: Water | Lab File ID: UX963124.D

Analysis Method: 8260C | Date Collected: 04/10/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 11:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: TB-041017 | Lab Sample ID: 240-77931-1

Matrix: Water | Lab File ID: UX963124.D

Analysis Method: 8260C | Date Collected: 04/10/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 11:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-1I-041017 | Lab Sample ID: 240-77931-2

Matrix: Water | Lab File ID: UX963125.D

Analysis Method: 8260C | Date Collected: 04/10/2017 09:48

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	4.9		1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.38	J	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	2.2		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.69	J	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-1I-041017 | Lab Sample ID: 240-77931-2

Matrix: Water | Lab File ID: UX963125.D

Analysis Method: 8260C | Date Collected: 04/10/2017 09:48

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.38	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.83	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	2.8		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-2I-041017 | Lab Sample ID: 240-77931-3

Matrix: Water | Lab File ID: UX963126.D

Analysis Method: 8260C | Date Collected: 04/10/2017 10:58

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 12:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	2.8		1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.66	J	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	9.2		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	14		1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.44	J	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.29	J	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-2I-041017 | Lab Sample ID: 240-77931-3

Matrix: Water | Lab File ID: UX963126.D

Analysis Method: 8260C | Date Collected: 04/10/2017 10:58

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 12:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	1.0		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	3.7		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-3I-041017 | Lab Sample ID: 240-77931-4

Matrix: Water | Lab File ID: UX963127.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:21

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 13:06

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.3	U	10	2.3
79-34-5	1,1,2,2-Tetrachloroethane	3.2	U	10	3.2
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	4.1	U	10	4.1
79-00-5	1,1,2-Trichloroethane	3.4	U	10	3.4
75-34-3	1,1-Dichloroethane	6.4	J	10	2.5
75-35-4	1,1-Dichloroethene	53		10	2.7
120-82-1	1,2,4-Trichlorobenzene	2.7	U	10	2.7
96-12-8	1,2-Dibromo-3-Chloropropane	4.7	U	20	4.7
106-93-4	Ethylene Dibromide	2.3	U	10	2.3
95-50-1	1,2-Dichlorobenzene	2.6	U	10	2.6
107-06-2	1,2-Dichloroethane	3.0	U	10	3.0
78-87-5	1,2-Dichloropropane	3.0	U	10	3.0
541-73-1	1,3-Dichlorobenzene	3.2	U	10	3.2
106-46-7	1,4-Dichlorobenzene	2.3	U	10	2.3
78-93-3	2-Butanone (MEK)	10	U	100	10
591-78-6	2-Hexanone	12	U	100	12
108-10-1	4-Methyl-2-pentanone (MIBK)	7.1	U	100	7.1
67-64-1	Acetone	18	U	100	18
71-43-2	Benzene	7.0	J	10	2.8
75-27-4	Dichlorobromomethane	3.0	U	10	3.0
75-25-2	Bromoform	4.3	U	10	4.3
74-83-9	Bromomethane	4.2	U	10	4.2
75-15-0	Carbon disulfide	3.4	U	10	3.4
56-23-5	Carbon tetrachloride	3.5	U	10	3.5
108-90-7	Chlorobenzene	3.2	U	10	3.2
75-00-3	Chloroethane	4.1	U	10	4.1
67-66-3	Chloroform	3.1	U	10	3.1
74-87-3	Chloromethane	4.3	U	10	4.3
156-59-2	cis-1,2-Dichloroethene	260		10	3.0
10061-01-5	cis-1,3-Dichloropropene	2.6	U	10	2.6
110-82-7	Cyclohexane	4.4	U	10	4.4
124-48-1	Chlorodibromomethane	2.5	U	10	2.5
75-71-8	Dichlorodifluoromethane	5.0	U	10	5.0
100-41-4	Ethylbenzene	2.6	U	10	2.6
98-82-8	Isopropylbenzene	2.1	U	10	2.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-3I-041017 | Lab Sample ID: 240-77931-4

Matrix: Water | Lab File ID: UX963127.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:21

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 13:06

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	14	U	100	14
1634-04-4	Methyl tert-butyl ether	2.7	U	10	2.7
108-87-2	Methylcyclohexane	4.5	U	10	4.5
75-09-2	Methylene Chloride	17	B	10	5.3
100-42-5	Styrene	2.3	U	10	2.3
127-18-4	Tetrachloroethene	3.0	U	10	3.0
108-88-3	Toluene	2.3	U	10	2.3
156-60-5	trans-1,2-Dichloroethene	2.9	U	10	2.9
10061-02-6	trans-1,3-Dichloropropene	3.1	U	10	3.1
79-01-6	Trichloroethene	5.1	J	10	3.3
75-69-4	Trichlorofluoromethane	5.0	U	10	5.0
75-01-4	Vinyl chloride	12		10	4.5
1330-20-7	Xylenes, Total	2.4	U	20	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-5I-041017 | Lab Sample ID: 240-77931-5

Matrix: Water | Lab File ID: UX963128.D

Analysis Method: 8260C | Date Collected: 04/10/2017 15:31

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 13:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	3.1		1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	29		10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	4.1		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	5.8		1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-5I-041017 | Lab Sample ID: 240-77931-5

Matrix: Water | Lab File ID: UX963128.D

Analysis Method: 8260C | Date Collected: 04/10/2017 15:31

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 13:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.49	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	1.0		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-124
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: TB-041117 | Lab Sample ID: 240-77967-1

Matrix: Water | Lab File ID: UX963192.D

Analysis Method: 8260C | Date Collected: 04/11/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 13:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: TB-041117 | Lab Sample ID: 240-77967-1

Matrix: Water | Lab File ID: UX963192.D

Analysis Method: 8260C | Date Collected: 04/11/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 13:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-4S-041117 | Lab Sample ID: 240-77967-2

Matrix: Water | Lab File ID: UX963193.D

Analysis Method: 8260C | Date Collected: 04/11/2017 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 14:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	4.5		1.0	0.25
75-35-4	1,1-Dichloroethene	0.65	J	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.36	J	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	1.0		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	2.3		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-4S-041117 | Lab Sample ID: 240-77967-2

Matrix: Water | Lab File ID: UX963193.D

Analysis Method: 8260C | Date Collected: 04/11/2017 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 14:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.92	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	2.1		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	1.4		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW69B-041117 | Lab Sample ID: 240-77967-3

Matrix: Water | Lab File ID: UX963194.D

Analysis Method: 8260C | Date Collected: 04/11/2017 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 14:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW69B-041117 | Lab Sample ID: 240-77967-3

Matrix: Water | Lab File ID: UX963194.D

Analysis Method: 8260C | Date Collected: 04/11/2017 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 14:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-4I-041117 | Lab Sample ID: 240-77967-4

Matrix: Water | Lab File ID: UX963195.D

Analysis Method: 8260C | Date Collected: 04/11/2017 10:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 15:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	2.5		1.0	0.25
75-35-4	1,1-Dichloroethene	0.31	J	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	1.3		1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	4.3	J	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	1.6	J	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	2.7		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	13		1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	3.3		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-SWMW-4I-041117 | Lab Sample ID: 240-77967-4

Matrix: Water | Lab File ID: UX963195.D

Analysis Method: 8260C | Date Collected: 04/11/2017 10:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 15:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.44	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	2.5		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW69A-041117 | Lab Sample ID: 240-77967-5

Matrix: Water | Lab File ID: UX963196.D

Analysis Method: 8260C | Date Collected: 04/11/2017 10:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 15:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW69A-041117 | Lab Sample ID: 240-77967-5

Matrix: Water | Lab File ID: UX963196.D

Analysis Method: 8260C | Date Collected: 04/11/2017 10:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 15:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW11C-041117 | Lab Sample ID: 240-77967-6

Matrix: Water | Lab File ID: UX963197.D

Analysis Method: 8260C | Date Collected: 04/11/2017 12:06

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 15:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW11C-041117 | Lab Sample ID: 240-77967-6

Matrix: Water | Lab File ID: UX963197.D

Analysis Method: 8260C | Date Collected: 04/11/2017 12:06

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 15:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW41A-041117 | Lab Sample ID: 240-77967-7

Matrix: Water | Lab File ID: UX963198.D

Analysis Method: 8260C | Date Collected: 04/11/2017 12:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW41A-041117 | Lab Sample ID: 240-77967-7

Matrix: Water | Lab File ID: UX963198.D

Analysis Method: 8260C | Date Collected: 04/11/2017 12:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 16:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-120
1868-53-7	Dibromofluoromethane (Surr)	100		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW12A-041117 | Lab Sample ID: 240-77967-8

Matrix: Water | Lab File ID: UX963199.D

Analysis Method: 8260C | Date Collected: 04/11/2017 15:33

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 16:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	3.4		1.0	0.25
75-35-4	1,1-Dichloroethene	3.8		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	2.0		1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	2.2	J	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.8	J	10	1.8
71-43-2	Benzene	4.8		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	9.5		1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	3.8		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW12A-041117 | Lab Sample ID: 240-77967-8

Matrix: Water | Lab File ID: UX963199.D

Analysis Method: 8260C | Date Collected: 04/11/2017 15:33

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 16:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.51	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	8.3		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW71B-040617 | Lab Sample ID: 240-77879-2

Matrix: Water | Lab File ID: Z24844_14.D

Analysis Method: 522 | Date Collected: 04/06/2017 09:33

Extract. Method: 3535A | Date Extracted: 04/19/2017 17:45

Sample wt/vol: 100(mL) | Date Analyzed: 04/24/2017 13:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 3.333

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	35		0.67	0.19

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	52		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW71A-040617 | Lab Sample ID: 240-77879-3

Matrix: Water | Lab File ID: Z24844_15.D

Analysis Method: 522 | Date Collected: 04/06/2017 11:59

Extract. Method: 3535A | Date Extracted: 04/19/2017 17:45

Sample wt/vol: 100(mL) | Date Analyzed: 04/24/2017 13:49

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.12	J	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	46		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW87B-040617 | Lab Sample ID: 240-77879-4

Matrix: Water | Lab File ID: Z24866_65.D

Analysis Method: 522 | Date Collected: 04/06/2017 14:56

Extract. Method: 3535A | Date Extracted: 04/26/2017 09:55

Sample wt/vol: 100(mL) | Date Analyzed: 04/27/2017 01:19

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.15	J	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	107		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW15A-040717 | Lab Sample ID: 240-77879-7

Matrix: Water | Lab File ID: Z24844_17.D

Analysis Method: 522 | Date Collected: 04/07/2017 12:17

Extract. Method: 3535A | Date Extracted: 04/19/2017 17:45

Sample wt/vol: 100(mL) | Date Analyzed: 04/24/2017 14:21

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	7.4		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	48		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW11A-040717 | Lab Sample ID: 240-77879-8

Matrix: Water | Lab File ID: Z24866_66.D

Analysis Method: 522 | Date Collected: 04/07/2017 15:06

Extract. Method: 3535A | Date Extracted: 04/26/2017 09:55

Sample wt/vol: 100(mL) | Date Analyzed: 04/27/2017 01:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.14	J	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	96		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW87A-040717 | Lab Sample ID: 240-77879-9

Matrix: Water | Lab File ID: Z24828_35.D

Analysis Method: 522 | Date Collected: 04/07/2017 08:00

Extract. Method: 3535A | Date Extracted: 04/19/2017 17:45

Sample wt/vol: 100(mL) | Date Analyzed: 04/22/2017 00:11

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116016 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.75		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	58		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-DUP07-040717 | Lab Sample ID: 240-77879-10

Matrix: Water | Lab File ID: Z24828_37.D

Analysis Method: 522 | Date Collected: 04/07/2017 00:00

Extract. Method: 3535A | Date Extracted: 04/19/2017 17:45

Sample wt/vol: 100(mL) | Date Analyzed: 04/22/2017 00:43

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116016 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	10		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	65		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW69B-041117 | Lab Sample ID: 240-77967-3

Matrix: Water | Lab File ID: Z24828_66.D

Analysis Method: 522 | Date Collected: 04/11/2017 10:00

Extract. Method: 3535A | Date Extracted: 04/20/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/22/2017 08:29

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116016 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.49		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	65		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW69A-041117 | Lab Sample ID: 240-77967-5

Matrix: Water | Lab File ID: Z24828_67.D

Analysis Method: 522 | Date Collected: 04/11/2017 10:55

Extract. Method: 3535A | Date Extracted: 04/20/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/22/2017 08:45

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116016 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	6.3		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	53		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW11C-041117 | Lab Sample ID: 240-77967-6

Matrix: Water | Lab File ID: Z24844_24.D

Analysis Method: 522 | Date Collected: 04/11/2017 12:06

Extract. Method: 3535A | Date Extracted: 04/20/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/24/2017 16:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	46		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW41A-041117 | Lab Sample ID: 240-77967-7

Matrix: Water | Lab File ID: Z24828_69.D

Analysis Method: 522 | Date Collected: 04/11/2017 12:30

Extract. Method: 3535A | Date Extracted: 04/20/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/22/2017 09:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116016 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.45		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	73		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW12A-041117 | Lab Sample ID: 240-77967-8

Matrix: Water | Lab File ID: Z24844_25.D

Analysis Method: 522 | Date Collected: 04/11/2017 15:33

Extract. Method: 3535A | Date Extracted: 04/20/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/24/2017 16:29

Con. Extract Vol.: 2(mL) | Dilution Factor: 16.667

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	150		3.3	0.95

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	71		46-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW12A-041117 Lab Sample ID: 240-77967-8

Matrix: Water Lab File ID: RSK0415013.D

Analysis Method: RSK-175 Date Collected: 04/11/2017 15:33

Sample wt/vol: 33(mL) Date Analyzed: 04/15/2017 16:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 274857 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	13		0.50	0.14
74-85-1	Ethylene	17		0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	84		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: MRC-MW12A-041117 | Lab Sample ID: 240-77967-8

Matrix: Water | Lab File ID: RSK0418007.D

Analysis Method: RSK-175 | Date Collected: 04/11/2017 15:33

Sample wt/vol: 33(mL) | Date Analyzed: 04/18/2017 15:14

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275129 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	8000		5.0	0.80

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	87		76-121

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW71B-040617 Lab Sample ID: 240-77879-2

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/06/2017 09:33

Reporting Basis: WET Date Received: 04/08/2017 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW71B-040617 Lab Sample ID: 240-77879-2

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/06/2017 09:33

Reporting Basis: WET Date Received: 04/08/2017 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.71	2.0	0.27	ug/L	J	B	1	6020A
7440-38-2	Arsenic	0.35	5.0	0.35	ug/L	U		1	6020A
7440-39-3	Barium	84	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	61	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.26	2.0	0.26	ug/L	U		1	6020A
7440-50-8	Copper	0.36	2.0	0.36	ug/L	U		1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	74	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	0.21	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	150	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW71A-040617 Lab Sample ID: 240-77879-3

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/06/2017 11:59

Reporting Basis: WET Date Received: 04/08/2017 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW71A-040617 Lab Sample ID: 240-77879-3

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/06/2017 11:59

Reporting Basis: WET Date Received: 04/08/2017 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	8.2	2.0	0.27	ug/L		B	1	6020A
7440-38-2	Arsenic	2.3	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	95	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.63	1.0	0.40	ug/L	J		1	6020A
7440-43-9	Cadmium	0.94	1.0	0.31	ug/L	J		1	6020A
7440-48-4	Cobalt	3.4	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	16	2.0	0.26	ug/L			1	6020A
7440-50-8	Copper	15	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	3.4	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	16	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	23	1.0	0.16	ug/L			1	6020A
7782-49-2	Selenium	2.0	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	30	5.0	0.54	ug/L			1	6020A
7440-66-6	Zinc	480	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.35	1.0	0.030	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW11A-040717 Lab Sample ID: 240-77879-8

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/07/2017 15:06

Reporting Basis: WET Date Received: 04/08/2017 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW11A-040717 Lab Sample ID: 240-77879-8

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/07/2017 15:06

Reporting Basis: WET Date Received: 04/08/2017 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	8.0	2.0	0.27	ug/L		B	1	6020A
7440-38-2	Arsenic	2.3	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	40	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.32	1.0	0.31	ug/L	J		1	6020A
7440-48-4	Cobalt	1.9	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	10	2.0	0.26	ug/L			1	6020A
7440-50-8	Copper	10	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	3.2	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	7.5	2.0	0.28	ug/L		B	1	6020A
7439-92-1	Lead	13	1.0	0.16	ug/L			1	6020A
7782-49-2	Selenium	1.7	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	16	5.0	0.54	ug/L			1	6020A
7440-66-6	Zinc	52	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.17	1.0	0.030	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW11C-041117 Lab Sample ID: 240-77967-6

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2017 12:06

Reporting Basis: WET Date Received: 04/12/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW11C-041117 Lab Sample ID: 240-77967-6

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2017 12:06

Reporting Basis: WET Date Received: 04/12/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.99	2.0	0.27	ug/L	J	B	1	6020A
7440-38-2	Arsenic	0.38	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	11	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	3.4	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.87	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	1.1	2.0	0.36	ug/L	J	B	1	6020A
7439-89-6	Iron	140	100	5.3	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7439-96-5	Manganese	39	5.0	0.25	ug/L		B	1	6020A
7440-02-0	Nickel	9.3	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.73	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.50	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.64	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	20	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW12A-041117 Lab Sample ID: 240-77967-8

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2017 15:33

Reporting Basis: WET Date Received: 04/12/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.17	0.20	0.13	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW12A-041117 Lab Sample ID: 240-77967-8

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2017 15:33

Reporting Basis: WET Date Received: 04/12/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	25000	5000	710	ug/L			1	6010C
7440-09-7	Potassium	9900	5000	70	ug/L			1	6010C
7439-95-4	Magnesium	14000	5000	230	ug/L			1	6010C
7440-23-5	Sodium	22000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	92000	1100	140	ug/L			1	6010C
7440-36-0	Antimony	4.9	2.0	0.27	ug/L		B	1	6020A
7440-38-2	Arsenic	12	5.0	0.35	ug/L			1	6020A
7440-39-3	Barium	280	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	7.0	1.0	0.40	ug/L			1	6020A
7440-43-9	Cadmium	0.35	1.0	0.31	ug/L	J		1	6020A
7440-48-4	Cobalt	33	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	82	2.0	0.26	ug/L			1	6020A
7440-50-8	Copper	52	2.0	0.36	ug/L		B	1	6020A
7439-89-6	Iron	180000	100	5.3	ug/L		B	1	6020A
7439-98-7	Molybdenum	2.6	10	0.51	ug/L	J		1	6020A
7439-96-5	Manganese	4200	5.0	0.25	ug/L		B	1	6020A
7440-02-0	Nickel	80	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	50	1.0	0.16	ug/L			1	6020A
7782-49-2	Selenium	5.2	5.0	0.48	ug/L			1	6020A
7440-28-0	Thallium	0.36	1.0	0.28	ug/L	J		1	6020A
7440-62-2	Vanadium	120	5.0	0.54	ug/L			1	6020A
7440-66-6	Zinc	360	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.28	1.0	0.030	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-DUP08-041117 Lab Sample ID: 240-77967-9

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2017 00:00

Reporting Basis: WET Date Received: 04/12/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-DUP08-041117 Lab Sample ID: 240-77967-9

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2017 00:00

Reporting Basis: WET Date Received: 04/12/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.45	2.0	0.27	ug/L	J	B	1	6020A
7440-38-2	Arsenic	0.35	5.0	0.35	ug/L	U		1	6020A
7440-39-3	Barium	11	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	3.1	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.77	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.89	2.0	0.36	ug/L	J	B	1	6020A
7439-89-6	Iron	130	100	5.3	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7439-96-5	Manganese	36	5.0	0.25	ug/L		B	1	6020A
7440-02-0	Nickel	9.0	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.51	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	20	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW12A-041117 Lab Sample ID: 240-77967-8

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2017 15:33

Reporting Basis: WET Date Received: 04/12/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	1.7	2.0	0.87	mg/L	J		1	4500 NH3 C-1997
	Alkalinity	160	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	57	1.0	0.41	mg/L			1	300.0
14797-65-0	Nitrite as N	0.038	0.10	0.038	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.36	0.10	0.035	mg/L			1	300.0
14808-79-8	Sulfate	11	1.0	0.13	mg/L			1	300.0
	Orthophosphate as P	0.083	0.10	0.0050	mg/L	J		1	4500 P E-1999
	Total Dissolved Solids	380	10	7.4	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW12A-041117 Lab Sample ID: 240-77967-8

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG ID.:

Matrix: Water Date Sampled: 04/11/2017 15:33

Reporting Basis: WET Date Received: 04/12/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	14	1.0	0.080	mg/L			1	9060

Appendix C

Support Documentation

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

1.4/C1.1

Chain of Custody Record

180325

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

BALTIMORE

Client Information	Sampler: Matt Ryan	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.2
Client Contact: Mr. Stuart Cameron	Phone: 301 528-3075	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3022	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Middle River Center	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/14.2 Volatile Analyte List	1,4 Dioxane (522)	TAL metals (6020A)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A				
TB-040617	4/6/17	—	G	Water			2	1	1		
MRC-MW 71B-040617		0933		Water			3	2	1		
MRC-MW 71A-040617		1159					3	2	1		
MRC-MW 87B-040617		1456					3	2	-		
MRC-MW 29A-040717	4/7/17	0955					3	1	1		
MRC-MW 77A-040717		1104					3	1	1		
MRC-MW 15A-040717		1217					1	2	-		
MRC-MW 11A-040717		1506					3	2	1		
MRC-MW 87A-040717		0800					3	2	-		
MRC-Dup07-040717		0000					1	2	-		

240-77879 Chain of Custody

Page 2092 of 2100

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client X Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Matt Ryan	4/7/16 1529	TT INC		4-9-2017 1529	TestAmerica
2		4-7-2006 1625	TestAmerica		04/08/17 950	TAE
3		Date/Time:	Company		Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 171879**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: DSD

Cooler Received on 04/08/17 Opened on 04/08/17

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other Private

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 1.4 °C Corrected Cooler Temp. 1.1 °C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Delivered Yes No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

1.2/0.9

Chain of Custody Record

180325

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

BALTIMORE

Client Information	Sampler: Walt Payon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.2
Client Contact: Mr. Stuart Cameron	Phone: 301 951-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3022	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Middle River Canton	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Total Number of containers	Special Instructions/Note:
Preservation Code:							A		
TB-041017	4/10/17	—	G	Water			3		
MRC-SWMW-1I-041017		0948		Water			3		
MRC-SWMW-2I-041017		1054					3		
MRC-SWMW-3I-041017		1221					3		
MRC-SWMW-5I-041017		1531					3		

240-77931 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Walt Payon	4/10/17 / 1540	JT INC		4-10-2017 / 1540	TestAmerica
2		4-10-2017 / 1712	TestAmerica		04/11/17 920	TA
3						

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 77931**
Canton Facility

Client Tetra Tech Site Name Middle River Center | Cooler unpacked by: DSO
Cooler Received on 04/11/17 Opened on 04/11/17
FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other
Receipt After-hours: Drop-off Date/Time Storage Location
TestAmerica Cooler # Foam Box Client Cooler Box Other
Packing material used: Bubble Wrap Foam Plastic Bag None Other
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 1.2 °C Corrected Cooler Temp. 0.9 °C
IR GUN #36 (CF **+0.8**°C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Covered Yes No
15. Was a LL Hg or Me Hg trip blank present? Yes No
Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES | Samples processed by:

15. SAMPLE CONDITION
Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION
Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

1.8/1.5 3.8/3.5

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

180325

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

BALTIMORE

Client Information	Sampler: Walt Payon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.2
Client Contact: Mr. Stuart Cameron	Phone: 301 991 3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): standard			
State, Zip: MD, 20874				
Phone: 301 528-3622	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Middle River Center	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (5222)	TAL metals (6020A)	MEE RSK-175	DOC (9060) D.S.S	Ammonia (SM4500NH3)	Alkalinity (2320B)	Total Select metals (6010C)	Anions - NO2, NO3 (300)	Anions - Cl, SO4 (300.0)	TDS, Calcd (2540C)	PE ortho (4500)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A													
TB-041117	4/11/17	—	G	Water			2	-	-	-	-	-	-	-	-	-	-	-		
MRC-SWMW-45-041117		0955		Water			3	-	-	-	-	-	-	-	-	-	-	-		
MRC-MW69B-041117		1000					3	2	-	-	-	-	-	-	-	-	-	-		
MRC-SWMW-4I-041117		1055					3	-	-	-	-	-	-	-	-	-	-	-		
MRC-MW69A-041117		1055					3	2	-	-	-	-	-	-	-	-	-	-		
MRC-MW11C-041117		1206					3	2	1	-	-	-	-	-	-	-	-	-		
MRC-MW41A-041117		1230					3	2	-	-	-	-	-	-	-	-	-	-		
MRC-MW12A-041117		1533					3	2	1	3	3	1	1	1	1	→				
MRC-Dup08-041117		0000					-	-	1	-	-	-	-	-	-	-	-	-		

240-77967 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Walt Payon	4/11/17 / 1550	TT INC		4-11-2017/1550	Test America
	Relinquished by:	Date/Time: 4-11-2017 / 1642	Company	Received by:	Date/Time: 4/12/17 9:20	Company TANC
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 170467
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: BM

Cooler Received on 4/12/17 Opened on 4/12/17

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt _____ ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF **+0.8**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # covered Yes No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-77879-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 522 1,4-Dioxane analysis was performed at the TestAmerica Burlington Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/8/2017 9:50 AM, 4/11/2017 9:20 AM and 4/12/2017 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.9º C, 1.1º C, 1.5º C and 3.5º C.

1,4-DIOXANE

Samples MRC-MW71B-040617 (240-77879-2), MRC-MW71A-040617 (240-77879-3), MRC-MW69B-041117 (240-77967-3), MRC-MW87B-040617 (240-77879-4), MRC-MW69A-041117 (240-77967-5), MRC-MW11C-041117 (240-77967-6), MRC-MW15A-040717 (240-77879-7), MRC-MW41A-041117 (240-77967-7), MRC-MW11A-040717 (240-77879-8), MRC-MW12A-041117 (240-77967-8), MRC-MW87A-040717 (240-77879-9) and MRC-DUP07-040717 (240-77879-10) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 04/19/2017, 04/20/2017 and 04/26/2017 and analyzed on 04/22/2017, 04/24/2017 and 04/27/2017.

Samples MRC-MW71B-040617 (240-77879-2)[3.33X] and MRC-MW12A-041117 (240-77879-8)[16.67X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 522: Surrogate recovery for the following samples was outside control limits: MRC-MW71A-040617 (240-77879-3), MRC-MW87B-040617 (240-77879-4), MRC-MW15A-040717 (240-77879-7), MRC-MW11A-040717 (240-77879-8) and MRC-MW11C-041117 (240-77967-6). Evidence of matrix interferences is not obvious.

Method(s) 522: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 200-115961 and analytical batch 200-116016 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 522: Surrogate recovery for the following sample was outside control limits: MRC-MW87B-040617 (240-77879-4) and MRC-MW11A-040717 (240-77879-8). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-040617 (240-77879-1), TB-041017 (240-77931-1), TB-041117 (240-77967-1), MRC-MW71B-040617 (240-77879-2),

MRC-SWMW-1I-041017 (240-77931-2), MRC-SWMW-4S-041117 (240-77967-2), MRC-MW71A-040617 (240-77879-3), MRC-SWMW-2I-041017 (240-77931-3), MRC-MW69B-041117 (240-77967-3), MRC-MW87B-040617 (240-77879-4), MRC-SWMW-3I-041017 (240-77931-4), MRC-SWMW-4I-041117 (240-77967-4), MRC-MW29A-040717 (240-77879-5), MRC-SWMW-5I-041017 (240-77931-5), MRC-MW69A-041117 (240-77967-5), MRC-MW77A-040717 (240-77879-6), MRC-MW11C-041117 (240-77967-6), MRC-MW41A-041117 (240-77967-7), MRC-MW11A-040717 (240-77879-8), MRC-MW12A-041117 (240-77967-8) and MRC-MW87A-040717 (240-77879-9) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/11/2017, 04/13/2017 and 04/17/2017.

Methylene Chloride was detected in method blank MB 240-274127/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Methylene Chloride was detected in method blank MB 240-274539/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Methylene Chloride was detected in method blank MB 240-274915/8 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Samples MRC-MW71B-040617 (240-77967-2)[1.25X] and MRC-SWMW-3I-041017 (240-77967-4)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 240-274127 was outside the method criteria for the following analyte(s): 1,1,2 Trichloro-1,2,2- trifluoroethane methylcyclohexane and carbon disulfide. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. TB-040617 (240-77879-1), MRC-MW71B-040617 (240-77879-2), MRC-MW71A-040617 (240-77879-3), MRC-MW87B-040617 (240-77879-4), MRC-MW29A-040717 (240-77879-5), MRC-MW77A-040717 (240-77879-6), MRC-MW11A-040717 (240-77879-8), MRC-MW87A-040717 (240-77879-9) and (CCVIS 240-274127/3)

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 240-274539 was outside the method criteria for the following analyte(s): Carbon disulfide. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 240-274915 was outside the method criteria for the following analyte(s): Carbon disulfide and 1,1,2-Trichloro-1,2,2-trifluoroethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. TB-041117 (240-77967-1), MRC-SWMW-4S-041117 (240-77967-2), MRC-MW69B-041117 (240-77967-3), MRC-SWMW-4I-041117 (240-77967-4), MRC-MW69A-041117 (240-77967-5), MRC-MW11C-041117 (240-77967-6), MRC-MW41A-041117 (240-77967-7), MRC-MW12A-041117 (240-77967-8) and (CCVIS 240-274915/3)

Method(s) 8260C: There was an MS/MSD analyzed in batch 274915 but could not be reported because the associated sample needed reanalyzed in a different batch. TB-041117 (240-77967-1), MRC-SWMW-4S-041117 (240-77967-2), MRC-MW69B-041117 (240-77967-3), MRC-SWMW-4I-041117 (240-77967-4), MRC-MW69A-041117 (240-77967-5), MRC-MW11C-041117 (240-77967-6), MRC-MW41A-041117 (240-77967-7) and MRC-MW12A-041117 (240-77967-8)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED GASES

Sample MRC-MW12A-041117 (240-77967-8) was analyzed for dissolved gases in accordance with RSK_175. The sample was analyzed on 04/15/2017 and 04/18/2017.

Methane failed the recovery criteria high for the MSD of sample MRC-MW12A-041117MSD (240-77967-8) in batch 240-275129.

Refer to the QC report for details.

Sample MRC-MW12A-041117 (240-77967-8)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) RSK-175: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-274857.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)

Sample MRC-MW12A-041117 (240-77967-8) was analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The sample was prepared on 04/13/2017 and analyzed on 04/14/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)
Samples MRC-MW71B-040617 (240-77879-2), MRC-MW71A-040617 (240-77879-3), MRC-MW11C-041117 (240-77967-6), MRC-MW11A-040717 (240-77879-8), MRC-MW12A-041117 (240-77967-8) and MRC-DUP08-041117 (240-77967-9) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 04/11/2017 and 04/13/2017 and analyzed on 04/12/2017 and 04/14/2017.

Several analytes were detected in method blank MB 240-274206/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Antimony, Barium, Copper, Iron and Manganese were detected in method blank MB 240-274588/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Iron failed the recovery criteria high for the MS of sample MRC-MW12A-041117MS (240-77967-8) in batch 240-274908.

Iron and Manganese failed the recovery criteria high for the MSD of sample MRC-MW12A-041117MSD (240-77967-8) in batch 240-274908.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY
Samples MRC-MW71B-040617 (240-77879-2), MRC-MW71A-040617 (240-77879-3), MRC-MW11C-041117 (240-77967-6), MRC-MW11A-040717 (240-77879-8), MRC-MW12A-041117 (240-77967-8) and MRC-DUP08-041117 (240-77967-9) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/11/2017 and 04/13/2017 and analyzed on 04/12/2017 and 04/14/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY
Sample MRC-MW12A-041117 (240-77967-8) was analyzed for alkalinity in accordance with SM 2320B. The sample was analyzed on 04/14/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS
Sample MRC-MW12A-041117 (240-77967-8) was analyzed for total dissolved solids in accordance with SM 2540C. The sample was analyzed on 04/14/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS
Sample MRC-MW12A-041117 (240-77967-8) was analyzed for anions in accordance with EPA Method 300.0. The sample was analyzed on 04/12/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS
Sample MRC-MW12A-041117 (240-77967-8) was analyzed for anions in accordance with EPA Method 300.0. The sample was analyzed on 04/12/2017.

Sulfate failed the recovery criteria low for the MS and MSD of sample 240-77783-25 in batch 240-274462.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ORTHOPHOSPHATE AS P
Sample MRC-MW12A-041117 (240-77967-8) was analyzed for orthophosphate as P in accordance with SM 4500 P E. The sample was analyzed on 04/12/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED ORGANIC CARBON
Sample MRC-MW12A-041117 (240-77967-8) was analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The sample was analyzed on 04/17/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA TITRATION
Sample MRC-MW12A-041117 (240-77967-8) was analyzed for Ammonia Titration in accordance with Standard Methods 4500 NH3-C. The sample was prepared and analyzed on 04/19/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-77879-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-77879-1	TB-040617	Water	04/06/17 00:00	04/08/17 09:50
240-77879-2	MRC-MW71B-040617	Water	04/06/17 09:33	04/08/17 09:50
240-77879-3	MRC-MW71A-040617	Water	04/06/17 11:59	04/08/17 09:50
240-77879-4	MRC-MW87B-040617	Water	04/06/17 14:56	04/08/17 09:50
240-77879-5	MRC-MW29A-040717	Water	04/07/17 09:55	04/08/17 09:50
240-77879-6	MRC-MW77A-040717	Water	04/07/17 11:08	04/08/17 09:50
240-77879-7	MRC-MW15A-040717	Water	04/07/17 12:17	04/08/17 09:50
240-77879-8	MRC-MW11A-040717	Water	04/07/17 15:06	04/08/17 09:50
240-77879-9	MRC-MW87A-040717	Water	04/07/17 08:00	04/08/17 09:50
240-77879-10	MRC-DUP07-040717	Water	04/07/17 00:00	04/08/17 09:50
240-77931-1	TB-041017	Water	04/10/17 00:00	04/11/17 09:20
240-77931-2	MRC-SWMW-1I-041017	Water	04/10/17 09:48	04/11/17 09:20
240-77931-3	MRC-SWMW-2I-041017	Water	04/10/17 10:58	04/11/17 09:20
240-77931-4	MRC-SWMW-3I-041017	Water	04/10/17 12:21	04/11/17 09:20
240-77931-5	MRC-SWMW-5I-041017	Water	04/10/17 15:31	04/11/17 09:20
240-77967-1	TB-041117	Water	04/11/17 00:00	04/12/17 09:20
240-77967-2	MRC-SWMW-4S-041117	Water	04/11/17 09:55	04/12/17 09:20
240-77967-3	MRC-MW69B-041117	Water	04/11/17 10:00	04/12/17 09:20
240-77967-4	MRC-SWMW-4I-041117	Water	04/11/17 10:55	04/12/17 09:20
240-77967-5	MRC-MW69A-041117	Water	04/11/17 10:55	04/12/17 09:20
240-77967-6	MRC-MW11C-041117	Water	04/11/17 12:06	04/12/17 09:20
240-77967-7	MRC-MW41A-041117	Water	04/11/17 12:30	04/12/17 09:20
240-77967-8	MRC-MW12A-041117	Water	04/11/17 15:33	04/12/17 09:20
240-77967-9	MRC-DUP08-041117	Water	04/11/17 00:00	04/12/17 09:20

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-77879-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
4500 NH3 C-1997	Ammonia	SM	TAL CAN
4500 P E-1999	Orthophosphate	SM	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-041117	240-77967-1	95	95	94	95
MRC-SWMW-4S-041117	240-77967-2	96	95	94	93
MRC-MW69B-041117	240-77967-3	98	94	93	92
MRC-SWMW-4I-041117	240-77967-4	97	95	95	95
MRC-MW69A-041117	240-77967-5	95	94	92	91
MRC-MW11C-041117	240-77967-6	101	98	92	89
MRC-MW41A-041117	240-77967-7	100	98	93	92
MRC-MW12A-041117	240-77967-8	96	97	94	93
	MB 240-274915/8	99	96	94	91
	LCS 240-274915/4	97	94	98	102
	LCSD 240-274915/5	100	95	95	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-040617	240-77879-1	96	93	92	89
MRC-MW71B-040617	240-77879-2	96	95	97	87
MRC-MW71A-040617	240-77879-3	96	95	93	93
MRC-MW87B-040617	240-77879-4	97	98	92	92
MRC-MW29A-040717	240-77879-5	96	99	96	90
MRC-MW77A-040717	240-77879-6	92	95	93	91
MRC-MW11A-040717	240-77879-8	96	93	94	87
MRC-MW87A-040717	240-77879-9	91	93	93	91
TB-041017	240-77931-1	97	97	94	90
MRC-SWMW-1I-041017	240-77931-2	95	94	94	88
MRC-SWMW-2I-041017	240-77931-3	95	96	93	90
MRC-SWMW-3I-041017	240-77931-4	96	96	94	91
MRC-SWMW-5I-041017	240-77931-5	95	97	97	93
	MB 240-274127/7	92	93	94	94
	MB 240-274539/7	99	97	93	91
	LCS 240-274127/4	96	92	96	100
	LCS 240-274539/4	100	93	100	101
MRC-SWMW-3I-041017 MS	240-77931-4 MS	97	93	98	100
	240-77761-C-6 MS	96	92	97	96
MRC-SWMW-3I-041017 MSD	240-77931-4 MSD	98	99	99	100
	240-77761-C-6 MSD	96	95	97	101

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	63-132
TOL = Toluene-d8 (Surr)	73-124
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963043.D

Lab ID: LCS 240-274127/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.1	91	79-133	
1,1,2,2-Tetrachloroethane	20.0	19.7	99	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.0	90	65-151	
1,1,2-Trichloroethane	20.0	20.2	101	80-120	
1,1-Dichloroethane	20.0	18.3	92	77-121	
1,1-Dichloroethene	20.0	19.1	95	70-141	
1,2,4-Trichlorobenzene	20.0	18.3	92	53-137	
1,2-Dibromo-3-Chloropropane	20.0	16.4	82	46-140	
Ethylene Dibromide	20.0	18.7	94	80-126	
1,2-Dichlorobenzene	20.0	19.3	97	80-120	
1,2-Dichloroethane	20.0	17.3	86	76-130	
1,2-Dichloropropane	20.0	19.3	97	79-121	
1,3-Dichlorobenzene	20.0	19.2	96	80-120	
1,4-Dichlorobenzene	20.0	19.6	98	80-120	
2-Butanone (MEK)	40.0	39.7	99	54-122	
2-Hexanone	40.0	39.1	98	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	38.1	95	60-131	
Acetone	40.0	27.6	69	46-120	
Benzene	20.0	19.7	98	80-120	
Dichlorobromomethane	20.0	18.0	90	76-125	
Bromoform	20.0	16.6	83	52-157	
Bromomethane	20.0	18.2	91	24-160	
Carbon disulfide	20.0	15.5	78	58-160	
Carbon tetrachloride	20.0	17.1	85	69-149	
Chlorobenzene	20.0	18.5	93	80-120	
Chloroethane	20.0	19.6	98	24-147	
Chloroform	20.0	19.5	98	80-120	
Chloromethane	20.0	17.9	90	50-135	
cis-1,2-Dichloroethene	20.0	18.7	93	80-120	
cis-1,3-Dichloropropene	20.0	19.9	100	75-120	
Cyclohexane	20.0	19.0	95	66-135	
Chlorodibromomethane	20.0	16.6	83	68-131	
Dichlorodifluoromethane	20.0	14.9	75	32-140	
Ethylbenzene	20.0	19.3	97	80-120	
Isopropylbenzene	20.0	19.0	95	80-120	
Methyl acetate	40.0	35.2	88	65-124	
Methyl tert-butyl ether	20.0	18.2	91	75-126	
Methylcyclohexane	20.0	17.8	89	71-122	
Methylene Chloride	20.0	19.3	96	68-136	
Styrene	20.0	19.7	99	80-120	
Tetrachloroethene	20.0	19.5	98	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963043.D

Lab ID: LCS 240-274127/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	19.0	95	80-121	
trans-1,2-Dichloroethene	20.0	20.9	104	80-123	
trans-1,3-Dichloropropene	20.0	17.0	85	65-120	
Trichloroethene	20.0	18.9	95	80-122	
Trichlorofluoromethane	20.0	18.0	90	56-161	
Vinyl chloride	20.0	18.1	91	60-129	
Xylenes, Total	40.0	38.0	95	80-120	
m-Xylene & p-Xylene	20.0	18.8	94	80-120	
o-Xylene	20.0	19.2	96	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963120.D

Lab ID: LCS 240-274539/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.5	93	79-133	
1,1,2,2-Tetrachloroethane	20.0	19.9	99	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.0	85	65-151	
1,1,2-Trichloroethane	20.0	21.0	105	80-120	
1,1-Dichloroethane	20.0	18.9	94	77-121	
1,1-Dichloroethene	20.0	19.2	96	70-141	
1,2,4-Trichlorobenzene	20.0	15.4	77	53-137	
1,2-Dibromo-3-Chloropropane	20.0	16.5	83	46-140	
Ethylene Dibromide	20.0	19.4	97	80-126	
1,2-Dichlorobenzene	20.0	18.6	93	80-120	
1,2-Dichloroethane	20.0	17.9	89	76-130	
1,2-Dichloropropane	20.0	19.8	99	79-121	
1,3-Dichlorobenzene	20.0	19.0	95	80-120	
1,4-Dichlorobenzene	20.0	19.4	97	80-120	
2-Butanone (MEK)	40.0	38.4	96	54-122	
2-Hexanone	40.0	40.9	102	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	37.6	94	60-131	
Acetone	40.0	22.1	55	46-120	
Benzene	20.0	20.3	102	80-120	
Dichlorobromomethane	20.0	18.8	94	76-125	
Bromoform	20.0	19.1	96	52-157	
Bromomethane	20.0	20.3	101	24-160	
Carbon disulfide	20.0	15.0	75	58-160	
Carbon tetrachloride	20.0	17.2	86	69-149	
Chlorobenzene	20.0	19.1	96	80-120	
Chloroethane	20.0	21.6	108	24-147	
Chloroform	20.0	19.8	99	80-120	
Chloromethane	20.0	20.2	101	50-135	
cis-1,2-Dichloroethene	20.0	18.9	94	80-120	
cis-1,3-Dichloropropene	20.0	20.0	100	75-120	
Cyclohexane	20.0	19.4	97	66-135	
Chlorodibromomethane	20.0	17.0	85	68-131	
Dichlorodifluoromethane	20.0	17.9	89	32-140	
Ethylbenzene	20.0	19.4	97	80-120	
Isopropylbenzene	20.0	19.4	97	80-120	
Methyl acetate	40.0	35.0	87	65-124	
Methyl tert-butyl ether	20.0	17.9	89	75-126	
Methylcyclohexane	20.0	17.2	86	71-122	
Methylene Chloride	20.0	20.4	102	68-136	
Styrene	20.0	20.0	100	80-120	
Tetrachloroethene	20.0	20.4	102	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963120.D

Lab ID: LCS 240-274539/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.1	100	80-121	
trans-1,2-Dichloroethene	20.0	20.3	101	80-123	
trans-1,3-Dichloropropene	20.0	16.9	85	65-120	
Trichloroethene	20.0	19.2	96	80-122	
Trichlorofluoromethane	20.0	16.5	83	56-161	
Vinyl chloride	20.0	20.7	104	60-129	
Xylenes, Total	40.0	38.7	97	80-120	
m-Xylene & p-Xylene	20.0	19.5	98	80-120	
o-Xylene	20.0	19.2	96	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963184.D

Lab ID: LCS 240-274915/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.5	93	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.9	105	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.6	88	65-144	
1,1,2-Trichloroethane	20.0	20.7	104	76-121	
1,1-Dichloroethane	20.0	19.4	97	74-120	
1,1-Dichloroethene	20.0	20.1	100	65-127	
1,2,4-Trichlorobenzene	20.0	15.7	79	34-141	
1,2-Dibromo-3-Chloropropane	20.0	17.2	86	50-130	
Ethylene Dibromide	20.0	19.8	99	80-120	
1,2-Dichlorobenzene	20.0	19.4	97	80-120	
1,2-Dichloroethane	20.0	18.2	91	68-133	
1,2-Dichloropropane	20.0	20.8	104	78-127	
1,3-Dichlorobenzene	20.0	20.0	100	80-120	
1,4-Dichlorobenzene	20.0	19.7	99	80-120	
2-Butanone (MEK)	40.0	41.9	105	43-149	
2-Hexanone	40.0	44.9	112	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	41.3	103	53-144	
Acetone	40.0	30.0	75	35-131	
Benzene	20.0	20.8	104	79-120	
Dichlorobromomethane	20.0	19.4	97	79-125	
Bromoform	20.0	20.4	102	55-145	
Bromomethane	20.0	19.8	99	17-158	
Carbon disulfide	20.0	15.8	79	49-141	
Carbon tetrachloride	20.0	17.1	85	55-171	
Chlorobenzene	20.0	19.8	99	80-120	
Chloroethane	20.0	21.2	106	10-149	
Chloroform	20.0	20.4	102	80-120	
Chloromethane	20.0	19.1	96	59-124	
cis-1,2-Dichloroethene	20.0	19.6	98	77-120	
cis-1,3-Dichloropropene	20.0	21.2	106	75-120	
Cyclohexane	20.0	19.6	98	66-135	
Chlorodibromomethane	20.0	17.8	89	64-129	
Dichlorodifluoromethane	20.0	18.8	94	42-141	
Ethylbenzene	20.0	19.8	99	80-120	
Isopropylbenzene	20.0	19.8	99	80-128	
Methyl acetate	40.0	38.9	97	63-137	
Methyl tert-butyl ether	20.0	19.2	96	73-120	
Methylcyclohexane	20.0	18.0	90	63-141	
Methylene Chloride	20.0	20.2	101	64-140	
Styrene	20.0	20.9	104	80-121	
Tetrachloroethene	20.0	20.0	100	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963184.D

Lab ID: LCS 240-274915/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.0	100	78-120	
trans-1,2-Dichloroethene	20.0	22.3	112	74-124	
trans-1,3-Dichloropropene	20.0	17.4	87	67-120	
Trichloroethene	20.0	19.3	97	76-124	
Trichlorofluoromethane	20.0	17.4	87	27-176	
Vinyl chloride	20.0	19.0	95	65-124	
Xylenes, Total	40.0	39.6	99	80-120	
m-Xylene & p-Xylene	20.0	19.7	98	80-120	
o-Xylene	20.0	19.9	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963185.D

Lab ID: LCSD 240-274915/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.7	94	1	35	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.7	103	1	35	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.8	89	1	35	65-144	
1,1,2-Trichloroethane	20.0	20.0	100	4	35	76-121	
1,1-Dichloroethane	20.0	19.1	95	2	35	74-120	
1,1-Dichloroethene	20.0	19.5	97	3	35	65-127	
1,2,4-Trichlorobenzene	20.0	16.6	83	6	35	34-141	
1,2-Dibromo-3-Chloropropane	20.0	16.7	84	2	35	50-130	
Ethylene Dibromide	20.0	19.0	95	4	35	80-120	
1,2-Dichlorobenzene	20.0	19.0	95	2	35	80-120	
1,2-Dichloroethane	20.0	18.3	92	1	35	68-133	
1,2-Dichloropropane	20.0	20.2	101	3	35	78-127	
1,3-Dichlorobenzene	20.0	19.2	96	4	35	80-120	
1,4-Dichlorobenzene	20.0	19.3	97	2	35	80-120	
2-Butanone (MEK)	40.0	41.1	103	2	35	43-149	
2-Hexanone	40.0	40.5	101	10	35	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	40.1	100	3	35	53-144	
Acetone	40.0	29.6	74	1	35	35-131	
Benzene	20.0	20.7	103	0	35	79-120	
Dichlorobromomethane	20.0	19.1	96	1	35	79-125	
Bromoform	20.0	18.1	91	12	35	55-145	
Bromomethane	20.0	21.1	106	6	35	17-158	
Carbon disulfide	20.0	16.0	80	1	35	49-141	
Carbon tetrachloride	20.0	17.6	88	3	35	55-171	
Chlorobenzene	20.0	18.6	93	6	35	80-120	
Chloroethane	20.0	22.2	111	5	35	10-149	
Chloroform	20.0	20.8	104	2	35	80-120	
Chloromethane	20.0	20.7	104	8	35	59-124	
cis-1,2-Dichloroethene	20.0	19.5	98	0	35	77-120	
cis-1,3-Dichloropropene	20.0	20.7	104	2	35	75-120	
Cyclohexane	20.0	19.2	96	2	35	66-135	
Chlorodibromomethane	20.0	17.4	87	3	35	64-129	
Dichlorodifluoromethane	20.0	19.6	98	4	35	42-141	
Ethylbenzene	20.0	18.8	94	5	35	80-120	
Isopropylbenzene	20.0	19.2	96	3	35	80-128	
Methyl acetate	40.0	36.9	92	5	35	63-137	
Methyl tert-butyl ether	20.0	18.5	92	4	35	73-120	
Methylcyclohexane	20.0	18.1	91	1	35	63-141	
Methylene Chloride	20.0	19.8	99	2	35	64-140	
Styrene	20.0	19.7	98	6	35	80-121	
Tetrachloroethene	20.0	19.3	96	4	35	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963185.D

Lab ID: LCSD 240-274915/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	20.0	19.1	95	5	35	78-120	
trans-1,2-Dichloroethene	20.0	21.8	109	2	35	74-124	
trans-1,3-Dichloropropene	20.0	16.6	83	5	35	67-120	
Trichloroethene	20.0	19.3	96	0	35	76-124	
Trichlorofluoromethane	20.0	17.7	89	2	35	27-176	
Vinyl chloride	20.0	20.5	103	8	35	65-124	
Xylenes, Total	40.0	37.6	94	5	35	80-120	
m-Xylene & p-Xylene	20.0	18.8	94	4	35	80-120	
o-Xylene	20.0	18.8	94	6	35	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963140.D

Lab ID: 240-77931-4 MS Client ID: MRC-SWMW-3I-041017 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	200	2.3 U	169	84	55-150	
1,1,2,2-Tetrachloroethane	200	3.2 U	188	94	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	200	4.1 U	162	81	41-149	
1,1,2-Trichloroethane	200	3.4 U	186	93	65-130	
1,1-Dichloroethane	200	6.4 J	182	88	57-135	
1,1-Dichloroethene	200	53	231	89	50-156	
1,2,4-Trichlorobenzene	200	2.7 U	146	73	35-140	
1,2-Dibromo-3-Chloropropane	200	4.7 U	137	68	37-139	
Ethylene Dibromide	200	2.3 U	173	87	64-137	
1,2-Dichlorobenzene	200	2.6 U	172	86	62-123	
1,2-Dichloroethane	200	3.0 U	168	84	62-137	
1,2-Dichloropropane	200	3.0 U	187	93	66-130	
1,3-Dichlorobenzene	200	3.2 U	174	87	59-122	
1,4-Dichlorobenzene	200	2.3 U	173	87	60-122	
2-Butanone (MEK)	400	10 U	374	94	38-123	
2-Hexanone	400	12 U	343	86	41-135	
4-Methyl-2-pentanone (MIBK)	400	7.1 U	342	86	43-143	
Acetone	400	18 U	269	67	28-120	
Benzene	200	7.0 J	196	94	67-126	
Dichlorobromomethane	200	3.0 U	167	83	64-127	
Bromoform	200	4.3 U	131	65	40-149	
Bromomethane	200	4.2 U	190	95	10-169	
Carbon disulfide	200	3.4 U	177	88	43-172	
Carbon tetrachloride	200	3.5 U	146	73	51-154	
Chlorobenzene	200	3.2 U	170	85	58-128	
Chloroethane	200	4.1 U	210	105	10-162	
Chloroform	200	3.1 U	191	95	67-133	
Chloromethane	200	4.3 U	193	97	30-143	
cis-1,2-Dichloroethene	200	260	437	86	64-134	
cis-1,3-Dichloropropene	200	2.6 U	164	82	58-120	
Cyclohexane	200	4.4 U	171	85	36-144	
Chlorodibromomethane	200	2.5 U	138	69	56-132	
Dichlorodifluoromethane	200	5.0 U	192	96	16-140	
Ethylbenzene	200	2.6 U	168	84	66-123	
Isopropylbenzene	200	2.1 U	168	84	57-132	
Methyl acetate	400	14 U	336	84	46-135	
Methyl tert-butyl ether	200	2.7 U	172	86	50-137	
Methylcyclohexane	200	4.5 U	156	78	31-139	
Methylene Chloride	200	17	190	86	48-138	
Styrene	200	2.3 U	175	88	62-131	
Tetrachloroethene	200	3.0 U	170	85	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963140.D

Lab ID: 240-77931-4 MS Client ID: MRC-SWMW-3I-041017 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	200	2.3 U	175	88	63-130	
trans-1,2-Dichloroethene	200	2.9 U	196	98	70-137	
trans-1,3-Dichloropropene	200	3.1 U	130	65	48-120	
Trichloroethene	200	5.1 J	177	86	58-139	
Trichlorofluoromethane	200	5.0 U	169	84	26-175	
Vinyl chloride	200	12	208	98	38-147	
Xylenes, Total	400	2.4 U	337	84	60-126	
m-Xylene & p-Xylene	200	2.4 U	166	83	58-127	
o-Xylene	200	2.8 U	171	86	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963064.D

Lab ID: 240-77761-C-6 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	80.0	0.92 U	70.6	88	55-150	
1,1,2,2-Tetrachloroethane	80.0	1.3 U	81.0	101	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	80.0	1.6 U	64.5	81	41-149	
1,1,2-Trichloroethane	80.0	1.4 U	82.4	103	65-130	
1,1-Dichloroethane	80.0	1.0 U	73.8	92	57-135	
1,1-Dichloroethene	80.0	1.1 U	75.4	94	50-156	
1,2,4-Trichlorobenzene	80.0	1.1 U	68.1	85	35-140	
1,2-Dibromo-3-Chloropropane	80.0	1.9 U	61.5	77	37-139	
Ethylene Dibromide	80.0	0.92 U	73.8	92	64-137	
1,2-Dichlorobenzene	80.0	1.0 U	72.0	90	62-123	
1,2-Dichloroethane	80.0	1.2 U	71.3	89	62-137	
1,2-Dichloropropane	80.0	1.2 U	76.4	96	66-130	
1,3-Dichlorobenzene	80.0	1.3 U	73.5	92	59-122	
1,4-Dichlorobenzene	80.0	0.92 U	73.2	91	60-122	
2-Butanone (MEK)	160	4.1 U	157	98	38-123	
2-Hexanone	160	4.9 U	158	99	41-135	
4-Methyl-2-pentanone (MIBK)	160	2.8 U	149	93	43-143	
Acetone	160	7.0 U	136	85	28-120	
Benzene	80.0	110	180	93	67-126	
Dichlorobromomethane	80.0	1.2 U	70.9	89	64-127	
Bromoform	80.0	1.7 U	54.6	68	40-149	
Bromomethane	80.0	1.7 U	75.4	94	10-169	
Carbon disulfide	80.0	1.4 U	75.9	95	43-172	
Carbon tetrachloride	80.0	1.4 U	61.4	77	51-154	
Chlorobenzene	80.0	1.3 U	70.5	88	58-128	
Chloroethane	80.0	1.6 U	83.0	104	10-162	
Chloroform	80.0	1.2 U	80.2	100	67-133	
Chloromethane	80.0	1.7 U	71.5	89	30-143	
cis-1,2-Dichloroethene	80.0	1.2 U	75.8	95	64-134	
cis-1,3-Dichloropropene	80.0	1.0 U	69.3	87	58-120	
Cyclohexane	80.0	32	94.4	79	36-144	
Chlorodibromomethane	80.0	1.0 U	58.7	73	56-132	
Dichlorodifluoromethane	80.0	2.0 U	63.0	79	16-140	
Ethylbenzene	80.0	44	117	91	66-123	
Isopropylbenzene	80.0	3.2 J	75.2	90	57-132	
Methyl acetate	160	5.7 U	141	88	46-135	
Methyl tert-butyl ether	80.0	1.1 U	72.1	90	50-137	
Methylcyclohexane	80.0	13	72.3	74	31-139	
Methylene Chloride	80.0	2.1 U	79.0	99	48-138	
Styrene	80.0	0.92 U	75.3	94	62-131	
Tetrachloroethene	80.0	1.2 U	70.4	88	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963064.D

Lab ID: 240-77761-C-6 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	80.0	7.9	79.8	90	63-130	
trans-1,2-Dichloroethene	80.0	1.2 U	79.7	100	70-137	
trans-1,3-Dichloropropene	80.0	1.2 U	56.6	71	48-120	
Trichloroethene	80.0	7.5	78.5	89	58-139	
Trichlorofluoromethane	80.0	2.0 U	72.1	90	26-175	
Vinyl chloride	80.0	1.8 U	74.4	93	38-147	
Xylenes, Total	160	13	156	89	60-126	
m-Xylene & p-Xylene	80.0	12	84.5	90	58-127	
o-Xylene	80.0	1.4 J	71.9	88	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963141.D

Lab ID: 240-77931-4 MSD Client ID: MRC-SWMW-3I-041017 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	200	165	83	2	35	55-150	
1,1,2,2-Tetrachloroethane	200	194	97	3	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	200	136	68	18	35	41-149	
1,1,2-Trichloroethane	200	198	99	6	35	65-130	
1,1-Dichloroethane	200	184	89	1	35	57-135	
1,1-Dichloroethene	200	222	85	4	35	50-156	
1,2,4-Trichlorobenzene	200	141	71	3	35	35-140	
1,2-Dibromo-3-Chloropropane	200	149	74	8	35	37-139	
Ethylene Dibromide	200	182	91	5	35	64-137	
1,2-Dichlorobenzene	200	175	88	2	35	62-123	
1,2-Dichloroethane	200	172	86	2	35	62-137	
1,2-Dichloropropane	200	187	94	0	35	66-130	
1,3-Dichlorobenzene	200	177	88	2	35	59-122	
1,4-Dichlorobenzene	200	173	87	0	35	60-122	
2-Butanone (MEK)	400	383	96	2	35	38-123	
2-Hexanone	400	408	102	17	35	41-135	
4-Methyl-2-pentanone (MIBK)	400	375	94	9	35	43-143	
Acetone	400	237	59	12	35	28-120	
Benzene	200	196	94	0	31	67-126	
Dichlorobromomethane	200	167	83	0	35	64-127	
Bromoform	200	135	68	4	35	40-149	
Bromomethane	200	190	95	0	35	10-169	
Carbon disulfide	200	137	68	25	35	43-172	
Carbon tetrachloride	200	144	72	1	35	51-154	
Chlorobenzene	200	176	88	3	35	58-128	
Chloroethane	200	215	108	2	35	10-162	
Chloroform	200	187	94	2	35	67-133	
Chloromethane	200	191	96	1	35	30-143	
cis-1,2-Dichloroethene	200	429	82	2	35	64-134	
cis-1,3-Dichloropropene	200	171	85	4	35	58-120	
Cyclohexane	200	149	75	14	35	36-144	
Chlorodibromomethane	200	147	74	6	35	56-132	
Dichlorodifluoromethane	200	173	86	10	35	16-140	
Ethylbenzene	200	176	88	4	34	66-123	
Isopropylbenzene	200	175	87	4	35	57-132	
Methyl acetate	400	346	86	3	34	46-135	
Methyl tert-butyl ether	200	180	90	4	35	50-137	
Methylcyclohexane	200	135	67	14	35	31-139	
Methylene Chloride	200	200	91	5	35	48-138	
Styrene	200	185	92	5	35	62-131	
Tetrachloroethene	200	174	87	2	35	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963141.D

Lab ID: 240-77931-4 MSD Client ID: MRC-SWMW-3I-041017 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	200	179	89	2	33	63-130	
trans-1,2-Dichloroethene	200	195	97	1	25	70-137	
trans-1,3-Dichloropropene	200	138	69	6	35	48-120	
Trichloroethene	200	178	87	1	35	58-139	
Trichlorofluoromethane	200	167	84	1	35	26-175	
Vinyl chloride	200	199	93	4	35	38-147	
Xylenes, Total	400	353	88	5	35	60-126	
m-Xylene & p-Xylene	200	173	87	4	35	58-127	
o-Xylene	200	180	90	5	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963065.D

Lab ID: 240-77761-C-6 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	80.0	71.2	89	1	35	55-150	
1,1,2,2-Tetrachloroethane	80.0	73.4	92	10	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	80.0	62.1	78	4	35	41-149	
1,1,2-Trichloroethane	80.0	83.3	104	1	35	65-130	
1,1-Dichloroethane	80.0	71.9	90	3	35	57-135	
1,1-Dichloroethene	80.0	73.0	91	3	35	50-156	
1,2,4-Trichlorobenzene	80.0	66.7	83	2	35	35-140	
1,2-Dibromo-3-Chloropropane	80.0	64.0	80	4	35	37-139	
Ethylene Dibromide	80.0	72.3	90	2	35	64-137	
1,2-Dichlorobenzene	80.0	70.1	88	3	35	62-123	
1,2-Dichloroethane	80.0	73.4	92	3	35	62-137	
1,2-Dichloropropane	80.0	76.9	96	1	35	66-130	
1,3-Dichlorobenzene	80.0	71.3	89	3	35	59-122	
1,4-Dichlorobenzene	80.0	72.6	91	1	35	60-122	
2-Butanone (MEK)	160	155	97	1	35	38-123	
2-Hexanone	160	159	99	1	35	41-135	
4-Methyl-2-pentanone (MIBK)	160	151	95	1	35	43-143	
Acetone	160	126	78	8	35	28-120	
Benzene	80.0	173	84	4	31	67-126	
Dichlorobromomethane	80.0	69.1	86	3	35	64-127	
Bromoform	80.0	55.4	69	1	35	40-149	
Bromomethane	80.0	69.4	87	8	35	10-169	
Carbon disulfide	80.0	56.0	70	30	35	43-172	
Carbon tetrachloride	80.0	61.3	77	0	35	51-154	
Chlorobenzene	80.0	71.2	89	1	35	58-128	
Chloroethane	80.0	79.4	99	4	35	10-162	
Chloroform	80.0	78.0	97	3	35	67-133	
Chloromethane	80.0	71.7	90	0	35	30-143	
cis-1,2-Dichloroethene	80.0	74.4	93	2	35	64-134	
cis-1,3-Dichloropropene	80.0	69.4	87	0	35	58-120	
Cyclohexane	80.0	95.8	80	1	35	36-144	
Chlorodibromomethane	80.0	56.3	70	4	35	56-132	
Dichlorodifluoromethane	80.0	61.0	76	3	35	16-140	
Ethylbenzene	80.0	114	87	3	34	66-123	
Isopropylbenzene	80.0	75.2	90	0	35	57-132	
Methyl acetate	160	134	84	5	34	46-135	
Methyl tert-butyl ether	80.0	70.2	88	3	35	50-137	
Methylcyclohexane	80.0	72.8	74	1	35	31-139	
Methylene Chloride	80.0	79.7	100	1	35	48-138	
Styrene	80.0	74.6	93	1	35	62-131	
Tetrachloroethene	80.0	73.0	91	4	35	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963065.D

Lab ID: 240-77761-C-6 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	80.0	80.3	90	1	33	63-130	
trans-1,2-Dichloroethene	80.0	78.9	99	1	25	70-137	
trans-1,3-Dichloropropene	80.0	55.3	69	2	35	48-120	
Trichloroethene	80.0	78.9	89	1	35	58-139	
Trichlorofluoromethane	80.0	67.7	85	6	35	26-175	
Vinyl chloride	80.0	72.5	91	3	35	38-147	
Xylenes, Total	160	155	89	1	35	60-126	
m-Xylene & p-Xylene	80.0	82.4	88	3	35	58-127	
o-Xylene	80.0	72.9	89	1	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab File ID: UX963047.D Lab Sample ID: MB 240-274127/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/11/2017 10:51

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-274127/4	UX963043.D	04/11/2017 09:15
TB-040617	240-77879-1	UX963049.D	04/11/2017 12:34
MRC-MW71B-040617	240-77879-2	UX963050.D	04/11/2017 12:58
MRC-MW71A-040617	240-77879-3	UX963051.D	04/11/2017 13:22
MRC-MW87B-040617	240-77879-4	UX963052.D	04/11/2017 13:46
MRC-MW29A-040717	240-77879-5	UX963053.D	04/11/2017 14:10
MRC-MW77A-040717	240-77879-6	UX963054.D	04/11/2017 14:34
MRC-MW11A-040717	240-77879-8	UX963055.D	04/11/2017 14:58
MRC-MW87A-040717	240-77879-9	UX963056.D	04/11/2017 15:22
	240-77761-C-6 MS	UX963064.D	04/11/2017 18:33
	240-77761-C-6 MSD	UX963065.D	04/11/2017 18:55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274127/7

Matrix: Water | Lab File ID: UX963047.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/11/2017 10:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274127 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-274127/7

Matrix: Water Lab File ID: UX963047.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 04/11/2017 10:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 274127 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.892	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab File ID: UX963123.D Lab Sample ID: MB 240-274539/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/13/2017 11:18

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-274539/4	UX963120.D	04/13/2017 10:06
TB-041017	240-77931-1	UX963124.D	04/13/2017 11:54
MRC-SWMW-1I-041017	240-77931-2	UX963125.D	04/13/2017 12:18
MRC-SWMW-2I-041017	240-77931-3	UX963126.D	04/13/2017 12:42
MRC-SWMW-3I-041017	240-77931-4	UX963127.D	04/13/2017 13:06
MRC-SWMW-5I-041017	240-77931-5	UX963128.D	04/13/2017 13:30
MRC-SWMW-3I-041017 MS	240-77931-4 MS	UX963140.D	04/13/2017 18:17
MRC-SWMW-3I-041017 MSD	240-77931-4 MSD	UX963141.D	04/13/2017 18:41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274539/7

Matrix: Water | Lab File ID: UX963123.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 11:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274539/7

Matrix: Water | Lab File ID: UX963123.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 11:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	1.79		1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-132

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab File ID: UX963188.D Lab Sample ID: MB 240-274915/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/17/2017 11:28

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-274915/4	UX963184.D	04/17/2017 09:50
	LCSD 240-274915/5	UX963185.D	04/17/2017 10:16
TB-041117	240-77967-1	UX963192.D	04/17/2017 13:48
MRC-SWMW-4S-041117	240-77967-2	UX963193.D	04/17/2017 14:12
MRC-MW69B-041117	240-77967-3	UX963194.D	04/17/2017 14:36
MRC-SWMW-4I-041117	240-77967-4	UX963195.D	04/17/2017 15:00
MRC-MW69A-041117	240-77967-5	UX963196.D	04/17/2017 15:24
MRC-MW11C-041117	240-77967-6	UX963197.D	04/17/2017 15:48
MRC-MW41A-041117	240-77967-7	UX963198.D	04/17/2017 16:12
MRC-MW12A-041117	240-77967-8	UX963199.D	04/17/2017 16:36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274915/8

Matrix: Water | Lab File ID: UX963188.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 11:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77879-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274915/8

Matrix: Water | Lab File ID: UX963188.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 11:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.693	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab File ID: BFB3479.D BFB Injection Date: 10/31/2016

Instrument ID: A3UX9 BFB Injection Time: 12:14

Analysis Batch No.: 253710

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	81.8	
175	5.0 - 9.0 % of mass 174	5.9	(7.2) 1
176	95.0 - 101.0 % of mass 174	80.9	(98.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-253710/8	UX959470.D	10/31/2016	13:31
	STD8260 240-253710/9	UX959471.D	10/31/2016	13:55
	STD8260 240-253710/10	UX959472.D	10/31/2016	14:20
	ICIS 240-253710/11	UX959473.D	10/31/2016	14:44
	STD8260 240-253710/12	UX959474.D	10/31/2016	15:08
	STD8260 240-253710/13	UX959475.D	10/31/2016	15:31
	ICV 240-253710/22	UX959484.D	10/31/2016	19:09

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-253710/8	UX959470.D
Level 2	STD8260 240-253710/9	UX959471.D
Level 3	STD8260 240-253710/10	UX959472.D
Level 4	ICIS 240-253710/11	UX959473.D
Level 5	STD8260 240-253710/12	UX959474.D
Level 6	STD8260 240-253710/13	UX959475.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2740 0.3110	0.2716	0.2989	0.2939	0.3264	Ave		0.2960			0.1000	7.2		20.0			
Chloromethane	0.3760 0.3337	0.3407	0.3694	0.3368	0.3588	Ave		0.3526			0.1000	5.1		20.0			
Vinyl chloride	0.3009 0.3414	0.3318	0.3722	0.3407	0.3619	Ave		0.3415			0.1000	7.3		20.0			
Butadiene	+++++ 0.3268	0.2168	0.2797	0.3026	0.3283	Ave		0.2909				15.8		20.0			
Bromomethane	0.1937 0.2501	0.1952	0.2199	0.2077	0.2234	Ave		0.2150			0.0500	9.8		20.0			
Chloroethane	0.1543 0.2476	0.1912	0.2494	0.2301	0.2469	Ave		0.2199			0.0500	17.7		20.0			
Dichlorofluoromethane	0.3725 0.5509	0.4178	0.5768	0.5402	0.5830	Ave		0.5069				17.6		20.0			
Trichlorofluoromethane	0.3107 0.4549	0.3855	0.4467	0.4326	0.4727	Ave		0.4172			0.1000	14.4		20.0			
Ethyl ether	0.1906 0.2453	0.2082	0.2425	0.2372	0.2480	Ave		0.2286				10.3		20.0			
Acrolein	0.0379 0.0356	0.0299	0.0323	0.0329	0.0360	Ave		0.0341				8.6		20.0			
1,1-Dichloroethene	0.3555 0.5265	0.4280	0.5369	0.4991	0.5281	Ave		0.4790			0.1000	15.1		20.0			
Acetone	+++++ 0.1056	0.1566	0.1192	0.1039	0.0988	Lin1	0.1173	0.1029			0.0100				0.9980		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.2848	0.1673	0.2782	0.2606	0.2864	Ave		0.2555			0.0500	19.7		20.0			
Iodomethane	0.3928 0.4627	0.4110	0.4526	0.4319	0.4610	Ave		0.4353				6.6		20.0			
Carbon disulfide	0.7849 0.8581	1.0236	0.8141	0.7260	0.8171	Ave		0.8373			0.1000	12.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.3504 0.3857	0.3632	0.3389	0.3492	0.3769	Ave		0.3607				5.0		20.0			
Methyl acetate	0.2313 0.2140	0.2276	0.2155	0.2066	0.2192	Ave		0.2190			0.1000	4.2		20.0			
Methylene Chloride	+++++ 0.3576	0.4410	0.3959	0.3491	0.3706	Ave		0.3828			0.1000	9.7		20.0			
2-Methyl-2-propanol	0.0247 0.0298	0.0214	0.0271	0.0260	0.0285	Ave		0.0262				11.3		20.0			
Acrylonitrile	0.0917 0.1045	0.0887	0.1017	0.1002	0.1038	Ave		0.0984				6.7		20.0			
trans-1,2-Dichloroethene	0.3245 0.3491	0.3572	0.3524	0.3424	0.3605	Ave		0.3477			0.1000	3.7		20.0			
Methyl tert-butyl ether	0.7869 0.8678	0.7533	0.8472	0.8294	0.8677	Ave		0.8254			0.1000	5.6		20.0			
Hexane	0.2438 0.2902	0.2349	0.2662	0.2595	0.2778	Ave		0.2621				7.9		20.0			
1,1-Dichloroethane	0.4042 0.4522	0.4181	0.4501	0.4390	0.4558	Ave		0.4365			0.2000	4.8		20.0			
Vinyl acetate	0.4045 0.4353	0.4208	0.3889	0.3960	0.4425	Ave		0.4147				5.2		20.0			
cis-1,2-Dichloroethene	0.3148 0.3690	0.4060	0.3712	0.3562	0.3704	Ave		0.3646			0.1000	8.1		20.0			
2-Butanone (MEK)	0.1329 0.1042	0.1093	0.1263	0.1044	0.1134	Ave		0.1151			0.0100	10.4		20.0			
2,2-Dichloropropane	0.1901 0.2047	0.1713	0.2006	0.1957	0.2025	Ave		0.1941				6.4		20.0			
Chlorobromomethane	0.2096 0.2081	0.1998	0.2125	0.2003	0.2083	Ave		0.2064				2.5		20.0			
Tetrahydrofuran	0.0720 0.0795	0.0759	0.0825	0.0775	0.0815	Ave		0.0782				4.9		20.0			
Chloroform	0.3597 0.4300	0.3989	0.4331	0.4234	0.4333	Ave		0.4131			0.2000	7.1		20.0			
1,1,1-Trichloroethane	0.2584 0.3174	0.2802	0.3075	0.3090	0.3145	Ave		0.2978			0.1000	7.9		20.0			
Cyclohexane	0.2974 0.3060	0.2183	0.2760	0.2912	0.3026	Ave		0.2819			0.1000	11.7		20.0			
1,1-Dichloropropene	0.3395 0.3666	0.3387	0.3505	0.3501	0.3605	Ave		0.3510				3.2		20.0			
Carbon tetrachloride	0.2613 0.3093	0.2264	0.2724	0.2772	0.3000	Ave		0.2744			0.1000	10.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0084 0.0093	0.0074	0.0078	0.0085	0.0097	Ave		0.0085				10.1		20.0			
Benzene	0.9773 1.0660	1.0220	1.0742	1.0397	1.0682	Ave		1.0412			0.5000	3.6		20.0			
1,2-Dichloroethane	0.3961 0.3697	0.3827	0.3803	0.3625	0.3771	Ave		0.3781			0.1000	3.1		20.0			
n-Heptane	+++++ 0.1709	0.2884	0.1629	0.1584	0.1591	Lin1	0.1055	0.1629							0.9970		0.9900
Trichloroethene	0.2541 0.2829	0.2997	0.2875	0.2799	0.2864	Ave		0.2817			0.1500	5.4		20.0			
Methylcyclohexane	0.2846 0.3569	0.2848	0.3042	0.3184	0.3339	Ave		0.3138			0.1000	9.1		20.0			
1,2-Dichloropropane	0.2495 0.2481	0.1942	0.2495	0.2437	0.2470	Ave		0.2387			0.1000	9.2		20.0			
Dibromomethane	0.1552 0.1739	0.1655	0.1743	0.1666	0.1769	Ave		0.1687				4.7		20.0			
1,4-Dioxane	+++++ 0.0032	0.0024	0.0029	0.0030	0.0035	Ave		0.0030				13.8		20.0			
Dichlorobromomethane	0.3054 0.3294	0.2754	0.3271	0.3062	0.3291	Ave		0.3121			0.1500	6.8		20.0			
2-Chloroethyl vinyl ether	0.1560 0.1849	0.1341	0.1797	0.1726	0.1870	Ave		0.1691				12.1		20.0			
cis-1,3-Dichloropropene	0.2523 0.4313	0.2934	0.3728	0.3872	0.4186	Ave		0.3593			0.1500	19.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2026 0.2453	0.2461	0.2500	0.2299	0.2496	Ave		0.2373			0.0500	7.8		20.0			
Toluene	1.4206 1.4774	1.4725	1.5025	1.4923	1.5137	Ave		1.4798			0.4000	2.2		20.0			
trans-1,3-Dichloropropene	0.2796 0.5131	0.2726	0.4215	0.4591	0.4920	Lin1	-0.174	0.4989			0.1000				0.9970		0.9900
Ethyl methacrylate	0.3130 0.4707	0.3237	0.4263	0.4409	0.4731	Ave		0.4079				17.6		20.0			
1,1,2-Trichloroethane	0.3081 0.2999	0.2772	0.3080	0.3024	0.3068	Ave		0.3004			0.1000	3.9		20.0			
1,3-Dichloropropane	0.6075 0.5716	0.5788	0.5768	0.5793	0.5784	Ave		0.5821				2.2		20.0			
Tetrachloroethene	0.3586 0.3405	0.3383	0.3436	0.3387	0.3416	Ave		0.3436			0.1500	2.2		20.0			
2-Hexanone	0.2018 0.2018	0.1934	0.2073	0.1915	0.2197	Ave		0.2026			0.0500	5.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.1404 0.3065	0.1885	0.2484	0.2756	0.2950	Lin1	-0.105	0.2984							0.9980		0.9900
Ethylene Dibromide	0.2818 0.3054	0.3040	0.3311	0.3104	0.3187	Ave		0.3086				5.4		20.0			
Chlorobenzene	0.9750 1.0017	0.9551	1.0118	1.0056	1.0282	Ave		0.9962			0.3000	2.7		20.0			
1,1,1,2-Tetrachloroethane	0.2813 0.3318	0.2359	0.3172	0.3274	0.3332	Ave		0.3045				12.7		20.0			
Ethylbenzene	0.4404 0.5339	0.4911	0.5201	0.5113	0.5358	Ave		0.5054				7.1		20.0			
m-Xylene & p-Xylene	0.5992 0.6588	0.5788	0.6697	0.6570	0.6729	Ave		0.6394				6.3		20.0			
o-Xylene	0.5545 0.6792	0.5872	0.6405	0.6521	0.6814	Ave		0.6325				8.1		20.0			
Styrene	0.8056 1.1519	0.9111	1.1233	1.1040	1.1602	Ave		1.0427			0.3000	14.2		20.0			
Bromoform	+++++ 0.1766	0.0859	0.1170	0.1416	0.1675	Lin1	-0.133	0.1694			0.1000				0.9910		0.9900
Isopropylbenzene	1.2431 1.5845	1.3447	1.5455	1.5475	1.6237	Ave		1.4815			0.1000	10.2		20.0			
1,1,2,2-Tetrachloroethane	0.7108 0.7699	0.7110	0.7430	0.7870	0.8001	Ave		0.7536			0.3000	5.1		20.0			
Bromobenzene	0.8207 0.7612	0.6939	0.7347	0.7577	0.7503	Ave		0.7530				5.5		20.0			
1,2,3-Trichloropropane	0.2485 0.2711	0.3099	0.2817	0.2863	0.2921	Ave		0.2816				7.4		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1738	0.0625	0.0690	0.1124	0.1260	Ave		0.1087				41.8	*	20.0			
N-Propylbenzene	0.6363 0.8060	0.6257	0.7201	0.7721	0.8051	Ave		0.7275				11.2		20.0			
2-Chlorotoluene	0.7681 0.7075	0.6942	0.6721	0.7044	0.7140	Ave		0.7100				4.5		20.0			
1,3,5-Trimethylbenzene	1.8942 2.3715	2.1949	2.1735	2.3146	2.3769	Ave		2.2209				8.2		20.0			
4-Chlorotoluene	0.5507 0.7519	0.7443	0.6934	0.7605	0.7709	Ave		0.7119				11.7		20.0			
tert-Butylbenzene	2.0342 2.0192	1.6703	2.0785	2.1994	2.0101	Ave		2.0019				8.8		20.0			
1,2,4-Trimethylbenzene	2.1059 2.4987	2.1501	2.3475	2.3966	2.5422	Ave		2.3402				7.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	0.4930 0.6053	0.4674	0.5469	0.5678	0.6023	Ave		0.5471				10.4		20.0			
1,3-Dichlorobenzene	1.4747 1.4345	1.3741	1.3942	1.4360	1.4594	Ave		1.4288			0.6000	2.7		20.0			
4-Isopropyltoluene	1.9791 2.4964	1.8194	2.2548	2.3826	2.4732	Ave		2.2342				12.4		20.0			
1,4-Dichlorobenzene	1.5384 1.4732	1.4645	1.4443	1.4810	1.5290	Ave		1.4884			0.5000	2.5		20.0			
n-Butylbenzene	1.9787 2.0882	1.7947	1.8431	1.9428	2.0350	Ave		1.9471				5.8		20.0			
1,2-Dichlorobenzene	1.4745 1.4141	1.3672	1.4031	1.4539	1.4554	Ave		1.4280			0.4000	2.8		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1722	0.0650	0.1512	0.1567	0.1716	Lin1	-0.120	0.1719			0.0500				0.9990		0.9900
1,2,4-Trichlorobenzene	0.8436 0.9146	0.6838	0.8064	0.8665	0.8854	Ave		0.8334			0.2000	9.8		20.0			
Hexachlorobutadiene	0.4432 0.3312	0.3109	0.2943	0.3070	0.3063	Ave		0.3322				16.8		20.0			
Naphthalene	2.4514 2.7719	2.3780	2.4048	2.6107	2.6834	Ave		2.5500				6.4		20.0			
1,2,3-Trichlorobenzene	0.9107 0.8620	0.7802	0.7873	0.8217	0.8212	Ave		0.8305				5.9		20.0			
Dibromofluoromethane (Surr)	0.1929 0.2274	0.2019	0.2216	0.2329	0.2400	Ave		0.2195				8.4		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2494 0.2961	0.2965	0.3087	0.2986	0.3032	Ave		0.2921				7.3		20.0			
Toluene-d8 (Surr)	1.2398 1.2745	1.2319	1.2744	1.2585	1.3026	Ave		1.2636				2.1		20.0			
4-Bromofluorobenzene (Surr)	0.3856 0.4810	0.4277	0.4870	0.4711	0.5020	Ave		0.4591				9.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-253710/8	UX959470.D
Level 2	STD8260 240-253710/9	UX959471.D
Level 3	STD8260 240-253710/10	UX959472.D
Level 4	ICIS 240-253710/11	UX959473.D
Level 5	STD8260 240-253710/12	UX959474.D
Level 6	STD8260 240-253710/13	UX959475.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	7215 1354562	14123	150362	320332	680696	0.500 80.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	9901 1453567	17721	185864	367090	748373	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7925 1486854	17259	187275	371300	754695	0.500 80.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	+++++ 1423385	11278	140691	329806	684778	+++++ 80.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	5102 1089114	10150	110611	226377	465972	0.500 80.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4063 1078543	9943	125457	250787	515011	0.500 80.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	9809 2399500	21731	290176	588799	1215776	0.500 80.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	8183 1981425	20048	224754	471491	985900	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5020 1068215	10830	121994	258562	517231	0.500 80.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	4996 774717	7773	81367	179175	375498	2.50 400	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	9363 2293011	22261	270090	544040	1101451	0.500 80.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 920206	16285	119921	226597	411943	+++++ 160	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	+++++ 1240587	8703	139978	284084	597254	+++++ 80.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	10343 2015382	21376	227697	470746	961379	0.500 80.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	20669 3737271	53235	409562	791343	1704128	0.500 80.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	9228 1679941	18891	170519	380582	786100	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	30458 4660013	59186	542039	1126032	2285728	2.50 400	5.00	50.0	100	200
Methylene Chloride	FB	Ave	+++++ 1557352	22938	199152	380479	772946	+++++ 80.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	6513 1295882	11111	136439	282930	594168	5.00 800	10.0	100	200	400
Acrylonitrile	FB	Ave	24154 4552207	46141	511631	1091842	2165761	5.00 800	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	8545 1520509	18575	177300	373166	751752	0.500 80.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	20723 3779507	39178	426233	903997	1809706	0.500 80.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	6420 1263719	12219	133920	282890	579408	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10644 1969405	21745	226419	478452	950553	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	10652 1895924	21884	195659	431579	922831	0.500 80.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	8290 1606902	21114	186738	388210	772577	0.500 80.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	6997 907503	11366	127084	227570	472990	1.00 160	2.00	20.0	40.0	80.0
2,2-Dichloropropane	FB	Ave	5006 891342	8909	100902	213339	422245	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	5520 906515	10389	106894	218284	434459	0.500 80.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	3793 692775	7896	82984	169018	339903	1.00 160	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	9473 1872919	20745	217895	461453	903747	0.500 80.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	6804 1382454	14575	154678	336825	655855	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	7831 1332555	11355	138838	317438	631089	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	8940 1596514	17616	176349	381603	751751	0.500 80.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6880 1347035	11775	137053	302139	625742	0.500 80.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	5499 1012918	9667	98074	231505	504642	12.5 2000	25.0	250	500	1000
Benzene	FB	Ave	25736 4642598	53152	540436	1133250	2227875	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	10431 1610337	19906	191345	395098	786494	0.500 80.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 744347	14998	81967	172616	331832	+++++ 80.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6691 1232077	15586	144653	305039	597315	0.500 80.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7496 1554611	14811	153052	347047	696424	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6571 1080421	10098	125536	265634	515135	0.500 80.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	4088 757541	8608	87680	181584	368865	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 277443	2463	29015	64911	145294	+++++ 1600	20.0	200	400	800
Dichlorobromomethane	FB	Ave	8043 1434574	14324	164581	333730	686416	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	8218 1610737	13952	180820	376178	779947	1.00 160	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	6643 1878459	15258	187548	422061	873107	0.500 80.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	10672 2136837	25597	251517	501194	1041090	1.00 160	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	29532 5186071	61194	598326	1261803	2529996	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Lin1	5813 1801088	11327	167834	388177	822247	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6506 1652174	13451	169777	372766	790770	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6405 1052853	11521	122635	255716	512844	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	12629 2006562	24055	229685	489830	966744	0.500 80.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7455 1195419	14057	136836	286414	571006	0.500 80.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	8392 1416575	16077	165132	323820	734278	1.00 160	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Lin1	2918 1075851	7834	98909	233033	493054	0.500 80.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	5858 1071955	12633	131863	262473	532697	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	20269 3516256	39691	402931	850273	1718467	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5848 1164842	9805	126319	276847	556973	0.500 80.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	9155 1874140	20408	207128	432295	895465	0.500 80.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	12456 2312443	24055	266688	555537	1124711	0.500 80.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	11527 2384189	24402	255067	551379	1138821	0.500 80.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	16747 4043520	37864	447307	933518	1939179	0.500 80.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Lin1	+++++ 619768	3569	46601	119719	280012	+++++ 80.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25842 5562069	55884	615469	1308494	2713786	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	7607 1511652	15462	175737	370559	776994	0.500 80.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8783 1494497	15089	173754	356741	728602	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2659 532370	6740	66634	134802	283668	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 341206	1360	16315	52945	122354	+++++ 80.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6810 1582609	13606	170304	363526	781811	0.500 80.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	8220 1389060	15097	158963	331668	693358	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	20272 4656383	47731	514064	1089816	2308137	0.500 80.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	5894 1476314	16185	164004	358055	748607	0.500 80.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	21770 3964535	36324	491581	1035589	1952027	0.500 80.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	22538 4906094	46757	555203	1128409	2468715	0.500 80.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	5276 1188410	10165	129358	267328	584872	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	15783 2816561	29883	329743	676138	1417159	0.500 80.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	21181 4901502	39565	533294	1121821	2401669	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	16464 2892481	31847	341584	697335	1484742	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	21177 4100036	39028	435911	914772	1976160	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	15781 2776485	29731	331849	684572	1413357	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 338136	1414	35755	73785	166645	+++++ 80.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9028 1795714	14871	190723	408008	859827	0.500 80.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4743 650351	6760	69614	144557	297461	0.500 80.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	26236 5442383	51713	568754	1229237	2605820	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9747 1692494	16966	186206	386895	797488	0.500 80.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	5080 990293	10501	111477	253847	500599	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	6569 1289603	15422	155294	325462	632418	0.500 80.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	25773 4473827	51197	507507	1064111	2177199	0.500 80.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	8016 1688410	17773	193918	398362	839102	0.500 80.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2533	0.1000	0.0171	0.0200	-14.4	20.0
Chloromethane	Ave	0.3526	0.3515	0.1000	0.0199	0.0200	-0.3	20.0
Vinyl chloride	Ave	0.3415	0.3456	0.1000	0.0202	0.0200	1.2	20.0
Butadiene	Ave	0.2909	0.3127		0.0215	0.0200	7.5	30.0
Bromomethane	Ave	0.2150	0.2223	0.0500	0.0207	0.0200	3.4	20.0
Chloroethane	Ave	0.2199	0.2452	0.0500	0.0223	0.0200	11.5	20.0
Dichlorofluoromethane	Ave	0.5069	0.5584		0.0220	0.0200	10.2	20.0
Trichlorofluoromethane	Ave	0.4172	0.4225	0.1000	0.0203	0.0200	1.3	20.0
Ethyl ether	Ave	0.2286	0.2300		0.0201	0.0200	0.6	20.0
Acrolein	Ave	0.0341	0.0543		0.159	0.100	59.1*	50.0
1,1-Dichloroethene	Ave	0.4790	0.4601	0.1000	0.0192	0.0200	-4.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2481	0.0500	0.0194	0.0200	-2.9	20.0
Acetone	Lin1		0.0845	0.0100	0.0317	0.0400	-20.7	50.0
Iodomethane	Ave	0.4353	0.4584		0.0211	0.0200	5.3	20.0
Carbon disulfide	Ave	0.8373	0.7252	0.1000	0.0173	0.0200	-13.4	20.0
3-Chloro-1-propene	Ave	0.3607	0.3451		0.0191	0.0200	-4.3	20.0
Methyl acetate	Ave	0.2190	0.2129	0.1000	0.0972	0.100	-2.8	20.0
Methylene Chloride	Ave	0.3828	0.3604	0.1000	0.0188	0.0200	-5.9	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0282		0.215	0.200	7.6	50.0
Acrylonitrile	Ave	0.0984	0.1032		0.210	0.200	4.8	20.0
Methyl tert-butyl ether	Ave	0.8254	0.8372	0.1000	0.0203	0.0200	1.4	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3345	0.1000	0.0192	0.0200	-3.8	20.0
Hexane	Ave	0.2621	0.2567		0.0196	0.0200	-2.0	20.0
1,1-Dichloroethane	Ave	0.4365	0.4281	0.2000	0.0196	0.0200	-1.9	20.0
Vinyl acetate	Ave	0.4147	0.3918		0.0189	0.0200	-5.5	50.0
2-Butanone (MEK)	Ave	0.1151	0.1224	0.0100	0.0426	0.0400	6.4	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3542	0.1000	0.0194	0.0200	-2.9	20.0
2,2-Dichloropropane	Ave	0.1941	0.1822		0.0188	0.0200	-6.1	20.0
Chlorobromomethane	Ave	0.2064	0.2118		0.0205	0.0200	2.6	20.0
Tetrahydrofuran	Ave	0.0782	0.0777		0.0398	0.0400	-0.6	20.0
Chloroform	Ave	0.4131	0.4211	0.2000	0.0204	0.0200	1.9	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.3065	0.1000	0.0206	0.0200	2.9	20.0
Cyclohexane	Ave	0.2819	0.2737	0.1000	0.0194	0.0200	-2.9	20.0
1,1-Dichloropropene	Ave	0.3510	0.3315		0.0189	0.0200	-5.6	20.0
Carbon tetrachloride	Ave	0.2744	0.2728	0.1000	0.0199	0.0200	-0.6	20.0
Isobutyl alcohol	Ave	0.0085	0.0090		0.531	0.500	6.1	20.0
1,2-Dichloroethane	Ave	0.3781	0.3730	0.1000	0.0197	0.0200	-1.4	20.0
Benzene	Ave	1.041	1.037	0.5000	0.0199	0.0200	-0.4	20.0
n-Heptane	Lin1		0.1424		0.0168	0.0200	-15.8	20.0
Trichloroethene	Ave	0.2817	0.2733	0.1500	0.0194	0.0200	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.3031	0.1000	0.0193	0.0200	-3.4	20.0
1,2-Dichloropropane	Ave	0.2387	0.2474	0.1000	0.0207	0.0200	3.7	20.0
1,4-Dioxane	Ave	0.0030	0.0033		0.443	0.400	10.8	50.0
Dibromomethane	Ave	0.1687	0.1663		0.0197	0.0200	-1.4	20.0
Dichlorobromomethane	Ave	0.3121	0.3023	0.1500	0.0194	0.0200	-3.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1779		0.0210	0.0200	5.2	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3907	0.1500	0.0218	0.0200	8.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2443	0.0500	0.0412	0.0400	2.9	20.0
Toluene	Ave	1.480	1.413	0.4000	0.0191	0.0200	-4.5	20.0
trans-1,3-Dichloropropene	Lin1		0.4109	0.1000	0.0168	0.0200	-15.9	20.0
Ethyl methacrylate	Ave	0.4079	0.4428		0.0217	0.0200	8.5	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2990	0.1000	0.0199	0.0200	-0.5	20.0
1,3-Dichloropropane	Ave	0.5821	0.5487		0.0189	0.0200	-5.7	20.0
Tetrachloroethene	Ave	0.3436	0.3278	0.1500	0.0191	0.0200	-4.6	20.0
2-Hexanone	Ave	0.2026	0.2188	0.0500	0.0432	0.0400	8.0	20.0
Chlorodibromomethane	Lin1		0.2534		0.0173	0.0200	-13.3	20.0
Ethylene Dibromide	Ave	0.3086	0.3139		0.0203	0.0200	1.7	20.0
Chlorobenzene	Ave	0.996	0.9792	0.3000	0.0197	0.0200	-1.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.3082		0.0202	0.0200	1.2	20.0
Ethylbenzene	Ave	0.5054	0.4868		0.0193	0.0200	-3.7	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6106		0.0191	0.0200	-4.5	20.0
o-Xylene	Ave	0.6325	0.6033		0.0191	0.0200	-4.6	20.0
Styrene	Ave	1.043	1.068	0.3000	0.0205	0.0200	2.4	20.0
Bromoform	Lin1		0.1338	0.1000	0.0166	0.0200	-17.1	20.0
Isopropylbenzene	Ave	1.482	1.476	0.1000	0.0199	0.0200	-0.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.8038	0.3000	0.0213	0.0200	6.7	20.0
Bromobenzene	Ave	0.7530	0.7621		0.0202	0.0200	1.2	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2807		0.0199	0.0200	-0.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.0976		0.0179	0.0200	-10.3	20.0
N-Propylbenzene	Ave	0.7275	0.7555		0.0208	0.0200	3.8	20.0
2-Chlorotoluene	Ave	0.7100	0.7027		0.0198	0.0200	-1.0	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.248		0.0202	0.0200	1.2	20.0
4-Chlorotoluene	Ave	0.7119	0.7423		0.0209	0.0200	4.3	20.0
tert-Butylbenzene	Ave	2.002	1.877		0.0188	0.0200	-6.2	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.374		0.0203	0.0200	1.4	20.0
sec-Butylbenzene	Ave	0.5471	0.5588		0.0204	0.0200	2.1	20.0
1,3-Dichlorobenzene	Ave	1.429	1.429	0.6000	0.0200	0.0200	0.0	20.0
4-Isopropyltoluene	Ave	2.234	2.314		0.0207	0.0200	3.6	20.0
1,4-Dichlorobenzene	Ave	1.488	1.507	0.5000	0.0202	0.0200	1.2	20.0
n-Butylbenzene	Ave	1.947	1.835		0.0189	0.0200	-5.7	20.0
1,2-Dichlorobenzene	Ave	1.428	1.430	0.4000	0.0200	0.0200	0.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1570	0.0500	0.0190	0.0200	-5.2	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.8250	0.2000	0.0198	0.0200	-1.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2855		0.0172	0.0200	-14.1	20.0
Naphthalene	Ave	2.550	2.625		0.0206	0.0200	3.0	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.8077		0.0195	0.0200	-2.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2034		0.0185	0.0200	-7.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2643		0.0181	0.0200	-9.5	20.0
Toluene-d8 (Surr)	Ave	1.264	1.172		0.0185	0.0200	-7.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4615		0.0201	0.0200	0.5	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab File ID: BFB3623.D BFB Injection Date: 04/11/2017

Instrument ID: A3UX9 BFB Injection Time: 08:24

Analysis Batch No.: 274127

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.9	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	91.2	
175	5.0 - 9.0 % of mass 174	7.7	(8.5) 1
176	95.0 - 101.0 % of mass 174	89.1	(97.7) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-274127/3	UX963042.D	04/11/2017	08:51
	LCS 240-274127/4	UX963043.D	04/11/2017	09:15
	CCV 240-274127/5	UX963044.D	04/11/2017	09:39
	MB 240-274127/7	UX963047.D	04/11/2017	10:51
TB-040617	240-77879-1	UX963049.D	04/11/2017	12:34
MRC-MW71B-040617	240-77879-2	UX963050.D	04/11/2017	12:58
MRC-MW71A-040617	240-77879-3	UX963051.D	04/11/2017	13:22
MRC-MW87B-040617	240-77879-4	UX963052.D	04/11/2017	13:46
MRC-MW29A-040717	240-77879-5	UX963053.D	04/11/2017	14:10
MRC-MW77A-040717	240-77879-6	UX963054.D	04/11/2017	14:34
MRC-MW11A-040717	240-77879-8	UX963055.D	04/11/2017	14:58
MRC-MW87A-040717	240-77879-9	UX963056.D	04/11/2017	15:22
	240-77761-C-6 MS	UX963064.D	04/11/2017	18:33
	240-77761-C-6 MSD	UX963065.D	04/11/2017	18:55

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVIS 240-274127/3 Calibration Date: 04/11/2017 08:51

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963042.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2865	0.1000	0.0194	0.0200	-3.2	20.0
Chloromethane	Ave	0.3526	0.3524	0.1000	0.0200	0.0200	-0.0	20.0
Vinyl chloride	Ave	0.3415	0.3468	0.1000	0.0203	0.0200	1.5	20.0
Butadiene	Ave	0.2909	0.2621		0.0180	0.0200	-9.9	20.0
Bromomethane	Ave	0.2150	0.2098	0.0500	0.0195	0.0200	-2.4	20.0
Chloroethane	Ave	0.2199	0.2316	0.0500	0.0211	0.0200	5.3	20.0
Dichlorofluoromethane	Ave	0.5069	0.5128		0.0202	0.0200	1.2	20.0
Trichlorofluoromethane	Ave	0.4172	0.3667	0.1000	0.0176	0.0200	-12.1	20.0
Ethyl ether	Ave	0.2286	0.2102		0.0184	0.0200	-8.1	20.0
Acrolein	Ave	0.0341	0.0413		0.121	0.100	21.1	50.0
1,1-Dichloroethene	Ave	0.4790	0.4550	0.1000	0.0190	0.0200	-5.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2001	0.0500	0.0157	0.0200	-21.7*	20.0
Acetone	Lin1		0.1056	0.0100	0.0399	0.0400	-0.2	50.0
Iodomethane	Ave	0.4353	0.3916		0.0180	0.0200	-10.0	20.0
Carbon disulfide	Ave	0.8373	0.6096	0.1000	0.0146	0.0200	-27.2*	20.0
3-Chloro-1-propene	Ave	0.3607	0.2991		0.0166	0.0200	-17.1	20.0
Methyl acetate	Ave	0.2190	0.1894	0.1000	0.0864	0.100	-13.6	20.0
Methylene Chloride	Ave	0.3828	0.3599	0.1000	0.0188	0.0200	-6.0	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0254		0.194	0.200	-3.2	50.0
Acrylonitrile	Ave	0.0984	0.1034		0.210	0.200	5.0	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7312	0.1000	0.0177	0.0200	-11.4	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3344	0.1000	0.0192	0.0200	-3.8	20.0
Hexane	Ave	0.2621	0.2004		0.0153	0.0200	-23.5*	20.0
1,1-Dichloroethane	Ave	0.4365	0.3981	0.2000	0.0182	0.0200	-8.8	20.0
Vinyl acetate	Ave	0.4147	0.3581		0.0173	0.0200	-13.6	50.0
2-Butanone (MEK)	Ave	0.1151	0.1284	0.0100	0.0446	0.0400	11.6	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3517	0.1000	0.0193	0.0200	-3.5	20.0
2,2-Dichloropropane	Ave	0.1941	0.1771		0.0182	0.0200	-8.8	20.0
Chlorobromomethane	Ave	0.2064	0.1989		0.0193	0.0200	-3.6	20.0
Tetrahydrofuran	Ave	0.0782	0.0734		0.0375	0.0400	-6.1	20.0
Chloroform	Ave	0.4131	0.4195	0.2000	0.0203	0.0200	1.6	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2678	0.1000	0.0180	0.0200	-10.1	20.0
Cyclohexane	Ave	0.2819	0.2390	0.1000	0.0170	0.0200	-15.2	20.0
1,1-Dichloropropene	Ave	0.3510	0.3253		0.0185	0.0200	-7.3	20.0
Carbon tetrachloride	Ave	0.2744	0.2568	0.1000	0.0187	0.0200	-6.4	20.0
Isobutyl alcohol	Ave	0.0085	0.0080		0.472	0.500	-5.7	20.0
1,2-Dichloroethane	Ave	0.3781	0.3357	0.1000	0.0178	0.0200	-11.2	20.0
Benzene	Ave	1.041	1.031	0.5000	0.0198	0.0200	-1.0	20.0
n-Heptane	Lin1		0.1196		0.0140	0.0200	-29.8*	20.0
Trichloroethene	Ave	0.2817	0.2630	0.1500	0.0187	0.0200	-6.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVIS 240-274127/3 Calibration Date: 04/11/2017 08:51

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963042.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2427	0.1000	0.0155	0.0200	-22.7*	20.0
1,2-Dichloropropane	Ave	0.2387	0.2321	0.1000	0.0195	0.0200	-2.7	20.0
1,4-Dioxane	Ave	0.0030	0.0024		0.328	0.400	-18.0	50.0
Dibromomethane	Ave	0.1687	0.1716		0.0203	0.0200	1.7	20.0
Dichlorobromomethane	Ave	0.3121	0.2767	0.1500	0.0177	0.0200	-11.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1541		0.0364	0.0400	-8.9	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3659	0.1500	0.0204	0.0200	1.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2245	0.0500	0.0378	0.0400	-5.4	20.0
Toluene	Ave	1.480	1.459	0.4000	0.0197	0.0200	-1.4	20.0
trans-1,3-Dichloropropene	Lin1		0.4382	0.1000	0.0179	0.0200	-10.4	20.0
Ethyl methacrylate	Ave	0.4079	0.4056		0.0199	0.0200	-0.6	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2987	0.1000	0.0199	0.0200	-0.6	20.0
1,3-Dichloropropane	Ave	0.5821	0.5480		0.0188	0.0200	-5.9	20.0
Tetrachloroethene	Ave	0.3436	0.3495	0.1500	0.0203	0.0200	1.7	20.0
2-Hexanone	Ave	0.2026	0.2411	0.0500	0.0476	0.0400	19.0	20.0
Chlorodibromomethane	Lin1		0.2647		0.0181	0.0200	-9.5	20.0
Ethylene Dibromide	Ave	0.3086	0.3074		0.0199	0.0200	-0.4	20.0
Chlorobenzene	Ave	0.996	0.9880	0.3000	0.0198	0.0200	-0.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2981		0.0196	0.0200	-2.1	20.0
Ethylbenzene	Ave	0.5054	0.5121		0.0203	0.0200	1.3	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6234		0.0195	0.0200	-2.5	20.0
o-Xylene	Ave	0.6325	0.6208		0.0196	0.0200	-1.8	20.0
Styrene	Ave	1.043	1.081	0.3000	0.0207	0.0200	3.7	20.0
Bromoform	Lin1		0.1556	0.1000	0.0192	0.0200	-4.2	20.0
Isopropylbenzene	Ave	1.482	1.510	0.1000	0.0204	0.0200	1.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7351	0.3000	0.0195	0.0200	-2.5	20.0
Bromobenzene	Ave	0.7530	0.7039		0.0187	0.0200	-6.5	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2768		0.0197	0.0200	-1.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1393		0.0256	0.0200	28.1*	20.0
N-Propylbenzene	Ave	0.7275	0.6959		0.0191	0.0200	-4.3	20.0
2-Chlorotoluene	Ave	0.7100	0.6154		0.0173	0.0200	-13.3	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.039		0.0184	0.0200	-8.2	20.0
4-Chlorotoluene	Ave	0.7119	0.6603		0.0185	0.0200	-7.3	20.0
tert-Butylbenzene	Ave	2.002	1.976		0.0197	0.0200	-1.3	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.210		0.0189	0.0200	-5.5	20.0
sec-Butylbenzene	Ave	0.5471	0.5110		0.0187	0.0200	-6.6	20.0
1,3-Dichlorobenzene	Ave	1.429	1.368	0.6000	0.0191	0.0200	-4.3	20.0
4-Isopropyltoluene	Ave	2.234	2.142		0.0192	0.0200	-4.1	20.0
1,4-Dichlorobenzene	Ave	1.488	1.429	0.5000	0.0192	0.0200	-4.0	20.0
n-Butylbenzene	Ave	1.947	1.726		0.0177	0.0200	-11.4	20.0
1,2-Dichlorobenzene	Ave	1.428	1.346	0.4000	0.0189	0.0200	-5.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVIS 240-274127/3 Calibration Date: 04/11/2017 08:51

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963042.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1382	0.0500	0.0168	0.0200	-16.1	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.7072	0.2000	0.0170	0.0200	-15.1	50.0
Hexachlorobutadiene	Ave	0.3322	0.2803		0.0169	0.0200	-15.6	20.0
Naphthalene	Ave	2.550	2.116		0.0166	0.0200	-17.0	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.6544		0.0158	0.0200	-21.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2011		0.0183	0.0200	-8.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2676		0.0183	0.0200	-8.4	20.0
Toluene-d8 (Surr)	Ave	1.264	1.271		0.0201	0.0200	0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4633		0.0202	0.0200	0.9	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab File ID: BFB3625.D BFB Injection Date: 04/13/2017

Instrument ID: A3UX9 BFB Injection Time: 08:30

Analysis Batch No.: 274539

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.6	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	90.9	
175	5.0 - 9.0 % of mass 174	6.5	(7.1) 1
176	95.0 - 101.0 % of mass 174	90.6	(99.7) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-274539/3	UX963119.D	04/13/2017	09:42
	LCS 240-274539/4	UX963120.D	04/13/2017	10:06
	CCV 240-274539/5	UX963121.D	04/13/2017	10:30
	MB 240-274539/7	UX963123.D	04/13/2017	11:18
TB-041017	240-77931-1	UX963124.D	04/13/2017	11:54
MRC-SWMW-1I-041017	240-77931-2	UX963125.D	04/13/2017	12:18
MRC-SWMW-2I-041017	240-77931-3	UX963126.D	04/13/2017	12:42
MRC-SWMW-3I-041017	240-77931-4	UX963127.D	04/13/2017	13:06
MRC-SWMW-5I-041017	240-77931-5	UX963128.D	04/13/2017	13:30
MRC-SWMW-3I-041017 MS	240-77931-4 MS	UX963140.D	04/13/2017	18:17
MRC-SWMW-3I-041017 MSD	240-77931-4 MSD	UX963141.D	04/13/2017	18:41

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVIS 240-274539/3 Calibration Date: 04/13/2017 09:42

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963119.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.3214	0.1000	0.0217	0.0200	8.6	20.0
Chloromethane	Ave	0.3526	0.3395	0.1000	0.0193	0.0200	-3.7	20.0
Vinyl chloride	Ave	0.3415	0.3397	0.1000	0.0199	0.0200	-0.5	20.0
Butadiene	Ave	0.2909	0.2643		0.0182	0.0200	-9.1	20.0
Bromomethane	Ave	0.2150	0.1961	0.0500	0.0182	0.0200	-8.8	20.0
Chloroethane	Ave	0.2199	0.2252	0.0500	0.0205	0.0200	2.4	20.0
Dichlorofluoromethane	Ave	0.5069	0.4918		0.0194	0.0200	-3.0	20.0
Trichlorofluoromethane	Ave	0.4172	0.3745	0.1000	0.0180	0.0200	-10.2	20.0
Ethyl ether	Ave	0.2286	0.2064		0.0181	0.0200	-9.7	20.0
Acrolein	Ave	0.0341	0.0353		0.104	0.100	3.6	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2080	0.0500	0.0163	0.0200	-18.6	20.0
1,1-Dichloroethene	Ave	0.4790	0.4255	0.1000	0.0178	0.0200	-11.2	20.0
Acetone	Lin1		0.0883	0.0100	0.0332	0.0400	-17.0	50.0
Iodomethane	Ave	0.4353	0.3937		0.0181	0.0200	-9.6	20.0
Carbon disulfide	Ave	0.8373	0.5872	0.1000	0.0140	0.0200	-29.9*	20.0
3-Chloro-1-propene	Ave	0.3607	0.2765		0.0153	0.0200	-23.4*	20.0
Methyl acetate	Ave	0.2190	0.1797	0.1000	0.0820	0.100	-18.0	20.0
Methylene Chloride	Ave	0.3828	0.3723	0.1000	0.0194	0.0200	-2.8	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0188		0.143	0.200	-28.5	50.0
Acrylonitrile	Ave	0.0984	0.0978		0.199	0.200	-0.6	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7329	0.1000	0.0178	0.0200	-11.2	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3323	0.1000	0.0191	0.0200	-4.4	20.0
Hexane	Ave	0.2621	0.2124		0.0162	0.0200	-19.0	20.0
1,1-Dichloroethane	Ave	0.4365	0.3988	0.2000	0.0183	0.0200	-8.6	20.0
Vinyl acetate	Ave	0.4147	0.3482		0.0168	0.0200	-16.0	50.0
2-Butanone (MEK)	Ave	0.1151	0.1249	0.0100	0.0434	0.0400	8.5	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3383	0.1000	0.0186	0.0200	-7.2	20.0
2,2-Dichloropropane	Ave	0.1941	0.1566		0.0161	0.0200	-19.3	20.0
Chlorobromomethane	Ave	0.2064	0.1955		0.0189	0.0200	-5.3	20.0
Tetrahydrofuran	Ave	0.0782	0.0739		0.0378	0.0400	-5.5	20.0
Chloroform	Ave	0.4131	0.4026	0.2000	0.0195	0.0200	-2.5	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2661	0.1000	0.0179	0.0200	-10.7	20.0
Cyclohexane	Ave	0.2819	0.2578	0.1000	0.0183	0.0200	-8.6	20.0
1,1-Dichloropropene	Ave	0.3510	0.3096		0.0176	0.0200	-11.8	20.0
Carbon tetrachloride	Ave	0.2744	0.2350	0.1000	0.0171	0.0200	-14.4	20.0
Isobutyl alcohol	Ave	0.0085	0.0053		0.308	0.500	-38.3*	20.0
Benzene	Ave	1.041	0.9905	0.5000	0.0190	0.0200	-4.9	20.0
1,2-Dichloroethane	Ave	0.3781	0.3284	0.1000	0.0174	0.0200	-13.2	20.0
n-Heptane	Lin1		0.1251		0.0147	0.0200	-26.4*	20.0
Trichloroethene	Ave	0.2817	0.2580	0.1500	0.0183	0.0200	-8.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVIS 240-274539/3 Calibration Date: 04/13/2017 09:42

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963119.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2568	0.1000	0.0164	0.0200	-18.2	20.0
1,2-Dichloropropane	Ave	0.2387	0.2261	0.1000	0.0189	0.0200	-5.3	20.0
1,4-Dioxane	Ave	0.0030	0.0019		0.248	0.400	-37.9	50.0
Dibromomethane	Ave	0.1687	0.1712		0.0203	0.0200	1.4	20.0
Dichlorobromomethane	Ave	0.3121	0.2771	0.1500	0.0178	0.0200	-11.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1479		0.0350	0.0400	-12.5	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3499	0.1500	0.0195	0.0200	-2.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2219	0.0500	0.0374	0.0400	-6.5	20.0
Toluene	Ave	1.480	1.382	0.4000	0.0187	0.0200	-6.6	20.0
trans-1,3-Dichloropropene	Lin1		0.4165	0.1000	0.0170	0.0200	-14.8	20.0
Ethyl methacrylate	Ave	0.4079	0.3847		0.0189	0.0200	-5.7	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2854	0.1000	0.0190	0.0200	-5.0	20.0
1,3-Dichloropropane	Ave	0.5821	0.5042		0.0173	0.0200	-13.4	20.0
Tetrachloroethene	Ave	0.3436	0.3370	0.1500	0.0196	0.0200	-1.9	20.0
2-Hexanone	Ave	0.2026	0.2197	0.0500	0.0434	0.0400	8.4	20.0
Chlorodibromomethane	Lin1		0.2376		0.0163	0.0200	-18.6	20.0
Ethylene Dibromide	Ave	0.3086	0.2842		0.0184	0.0200	-7.9	20.0
Chlorobenzene	Ave	0.996	0.9149	0.3000	0.0184	0.0200	-8.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2886		0.0190	0.0200	-5.2	20.0
Ethylbenzene	Ave	0.5054	0.4827		0.0191	0.0200	-4.5	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.5913		0.0185	0.0200	-7.5	20.0
o-Xylene	Ave	0.6325	0.5821		0.0184	0.0200	-8.0	20.0
Styrene	Ave	1.043	0.9928	0.3000	0.0190	0.0200	-4.8	20.0
Bromoform	Lin1		0.1420	0.1000	0.0176	0.0200	-12.2	20.0
Isopropylbenzene	Ave	1.482	1.377	0.1000	0.0186	0.0200	-7.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7399	0.3000	0.0196	0.0200	-1.8	20.0
Bromobenzene	Ave	0.7530	0.7374		0.0196	0.0200	-2.1	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2734		0.0194	0.0200	-2.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1135		0.0209	0.0200	4.4	20.0
N-Propylbenzene	Ave	0.7275	0.6908		0.0190	0.0200	-5.1	20.0
2-Chlorotoluene	Ave	0.7100	0.6357		0.0179	0.0200	-10.5	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.046		0.0184	0.0200	-7.9	20.0
4-Chlorotoluene	Ave	0.7119	0.6798		0.0191	0.0200	-4.5	20.0
tert-Butylbenzene	Ave	2.002	1.920		0.0192	0.0200	-4.1	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.178		0.0186	0.0200	-6.9	20.0
sec-Butylbenzene	Ave	0.5471	0.5076		0.0186	0.0200	-7.2	20.0
1,3-Dichlorobenzene	Ave	1.429	1.337	0.6000	0.0187	0.0200	-6.4	20.0
4-Isopropyltoluene	Ave	2.234	2.010		0.0180	0.0200	-10.0	20.0
1,4-Dichlorobenzene	Ave	1.488	1.393	0.5000	0.0187	0.0200	-6.4	20.0
n-Butylbenzene	Ave	1.947	1.636		0.0168	0.0200	-16.0	20.0
1,2-Dichlorobenzene	Ave	1.428	1.254	0.4000	0.0176	0.0200	-12.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVIS 240-274539/3 Calibration Date: 04/13/2017 09:42

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963119.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1258	0.0500	0.0153	0.0200	-23.3	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.5838	0.2000	0.0140	0.0200	-30.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2310		0.0139	0.0200	-30.5*	20.0
Naphthalene	Ave	2.550	1.732		0.0136	0.0200	-32.1	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.4972		0.0120	0.0200	-40.1*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2173		0.0198	0.0200	-1.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2646		0.0181	0.0200	-9.4	20.0
Toluene-d8 (Surr)	Ave	1.264	1.228		0.0194	0.0200	-2.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4410		0.0192	0.0200	-3.9	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab File ID: BFB3627.D BFB Injection Date: 04/17/2017

Instrument ID: A3UX9 BFB Injection Time: 08:39

Analysis Batch No.: 274915

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.7	
75	30.0 - 60.0 % of mass 95	49.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	89.5	
175	5.0 - 9.0 % of mass 174	7.5	(8.4) 1
176	95.0 - 101.0 % of mass 174	86.2	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-274915/3	UX963183.D	04/17/2017	09:26
	LCS 240-274915/4	UX963184.D	04/17/2017	09:50
	LCSD 240-274915/5	UX963185.D	04/17/2017	10:16
	CCV 240-274915/6	UX963186.D	04/17/2017	10:40
	MB 240-274915/8	UX963188.D	04/17/2017	11:28
TB-041117	240-77967-1	UX963192.D	04/17/2017	13:48
MRC-SWMW-4S-041117	240-77967-2	UX963193.D	04/17/2017	14:12
MRC-MW69B-041117	240-77967-3	UX963194.D	04/17/2017	14:36
MRC-SWMW-4I-041117	240-77967-4	UX963195.D	04/17/2017	15:00
MRC-MW69A-041117	240-77967-5	UX963196.D	04/17/2017	15:24
MRC-MW11C-041117	240-77967-6	UX963197.D	04/17/2017	15:48
MRC-MW41A-041117	240-77967-7	UX963198.D	04/17/2017	16:12
MRC-MW12A-041117	240-77967-8	UX963199.D	04/17/2017	16:36

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVIS 240-274915/3 Calibration Date: 04/17/2017 09:26

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963183.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2582	0.1000	0.0174	0.0200	-12.8	20.0
Chloromethane	Ave	0.3526	0.3480	0.1000	0.0197	0.0200	-1.3	20.0
Vinyl chloride	Ave	0.3415	0.3277	0.1000	0.0192	0.0200	-4.0	20.0
Butadiene	Ave	0.2909	0.2255		0.0155	0.0200	-22.5*	20.0
Bromomethane	Ave	0.2150	0.2025	0.0500	0.0188	0.0200	-5.8	20.0
Chloroethane	Ave	0.2199	0.2136	0.0500	0.0194	0.0200	-2.9	20.0
Dichlorofluoromethane	Ave	0.5069	0.5070		0.0200	0.0200	0.0	20.0
Trichlorofluoromethane	Ave	0.4172	0.3469	0.1000	0.0166	0.0200	-16.8	20.0
Ethyl ether	Ave	0.2286	0.2151		0.0188	0.0200	-5.9	20.0
Acrolein	Ave	0.0341	0.0395		0.116	0.100	15.8	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2000	0.0500	0.0157	0.0200	-21.7*	20.0
1,1-Dichloroethene	Ave	0.4790	0.4523	0.1000	0.0189	0.0200	-5.6	20.0
Acetone	Lin1		0.1031	0.0100	0.0389	0.0400	-2.6	50.0
Iodomethane	Ave	0.4353	0.3991		0.0183	0.0200	-8.3	20.0
Carbon disulfide	Ave	0.8373	0.6273	0.1000	0.0150	0.0200	-25.1*	20.0
3-Chloro-1-propene	Ave	0.3607	0.3088		0.0171	0.0200	-14.4	20.0
Methyl acetate	Ave	0.2190	0.2000	0.1000	0.0913	0.100	-8.7	20.0
Methylene Chloride	Ave	0.3828	0.3685	0.1000	0.0192	0.0200	-3.8	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0252		0.192	0.200	-4.0	50.0
Acrylonitrile	Ave	0.0984	0.1095		0.222	0.200	11.2	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7543	0.1000	0.0183	0.0200	-8.6	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3429	0.1000	0.0197	0.0200	-1.4	20.0
Hexane	Ave	0.2621	0.2035		0.0155	0.0200	-22.4*	20.0
1,1-Dichloroethane	Ave	0.4365	0.4061	0.2000	0.0186	0.0200	-7.0	20.0
Vinyl acetate	Ave	0.4147	0.3697		0.0178	0.0200	-10.8	50.0
2-Butanone (MEK)	Ave	0.1151	0.1292	0.0100	0.0449	0.0400	12.3	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3530	0.1000	0.0194	0.0200	-3.2	20.0
2,2-Dichloropropane	Ave	0.1941	0.1551		0.0160	0.0200	-20.1*	20.0
Chlorobromomethane	Ave	0.2064	0.2037		0.0197	0.0200	-1.3	20.0
Tetrahydrofuran	Ave	0.0782	0.0778		0.0398	0.0400	-0.5	20.0
Chloroform	Ave	0.4131	0.4255	0.2000	0.0206	0.0200	3.0	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2629	0.1000	0.0177	0.0200	-11.7	20.0
Cyclohexane	Ave	0.2819	0.2436	0.1000	0.0173	0.0200	-13.6	20.0
1,1-Dichloropropene	Ave	0.3510	0.3105		0.0177	0.0200	-11.5	20.0
Carbon tetrachloride	Ave	0.2744	0.2219	0.1000	0.0162	0.0200	-19.2	20.0
Isobutyl alcohol	Ave	0.0085	0.0051		0.299	0.500	-40.2*	20.0
1,2-Dichloroethane	Ave	0.3781	0.3318	0.1000	0.0176	0.0200	-12.2	20.0
Benzene	Ave	1.041	0.997	0.5000	0.0192	0.0200	-4.2	20.0
n-Heptane	Lin1		0.1261		0.0148	0.0200	-25.8*	20.0
Trichloroethene	Ave	0.2817	0.2601	0.1500	0.0185	0.0200	-7.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVIS 240-274915/3 Calibration Date: 04/17/2017 09:26

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963183.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2525	0.1000	0.0161	0.0200	-19.5	20.0
1,2-Dichloropropane	Ave	0.2387	0.2249	0.1000	0.0188	0.0200	-5.8	20.0
1,4-Dioxane	Ave	0.0030	0.0025		0.334	0.400	-16.5	50.0
Dibromomethane	Ave	0.1687	0.1764		0.0209	0.0200	4.5	20.0
Dichlorobromomethane	Ave	0.3121	0.2809	0.1500	0.0180	0.0200	-10.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1562		0.0370	0.0400	-7.6	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3640	0.1500	0.0203	0.0200	1.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2336	0.0500	0.0394	0.0400	-1.6	20.0
Toluene	Ave	1.480	1.425	0.4000	0.0193	0.0200	-3.7	20.0
trans-1,3-Dichloropropene	Lin1		0.4353	0.1000	0.0178	0.0200	-11.0	20.0
Ethyl methacrylate	Ave	0.4079	0.3804		0.0186	0.0200	-6.8	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.3070	0.1000	0.0204	0.0200	2.2	20.0
1,3-Dichloropropane	Ave	0.5821	0.5409		0.0186	0.0200	-7.1	20.0
Tetrachloroethene	Ave	0.3436	0.3425	0.1500	0.0199	0.0200	-0.3	20.0
2-Hexanone	Ave	0.2026	0.2192	0.0500	0.0433	0.0400	8.2	20.0
Chlorodibromomethane	Lin1		0.2536		0.0173	0.0200	-13.3	20.0
Ethylene Dibromide	Ave	0.3086	0.2986		0.0194	0.0200	-3.2	20.0
Chlorobenzene	Ave	0.996	0.9366	0.3000	0.0188	0.0200	-6.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2779		0.0183	0.0200	-8.7	20.0
Ethylbenzene	Ave	0.5054	0.4820		0.0191	0.0200	-4.6	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6173		0.0193	0.0200	-3.5	20.0
o-Xylene	Ave	0.6325	0.5848		0.0185	0.0200	-7.5	20.0
Styrene	Ave	1.043	1.048	0.3000	0.0201	0.0200	0.5	20.0
Bromoform	Lin1		0.1606	0.1000	0.0198	0.0200	-1.2	20.0
Isopropylbenzene	Ave	1.482	1.424	0.1000	0.0192	0.0200	-3.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7617	0.3000	0.0202	0.0200	1.1	20.0
Bromobenzene	Ave	0.7530	0.7401		0.0197	0.0200	-1.7	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2771		0.0197	0.0200	-1.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1877		0.0345	0.0200	72.6*	20.0
N-Propylbenzene	Ave	0.7275	0.7004		0.0193	0.0200	-3.7	20.0
2-Chlorotoluene	Ave	0.7100	0.6566		0.0185	0.0200	-7.5	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.093		0.0188	0.0200	-5.8	20.0
4-Chlorotoluene	Ave	0.7119	0.6860		0.0193	0.0200	-3.6	20.0
tert-Butylbenzene	Ave	2.002	1.946		0.0194	0.0200	-2.8	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.231		0.0191	0.0200	-4.7	20.0
sec-Butylbenzene	Ave	0.5471	0.5106		0.0187	0.0200	-6.7	20.0
1,3-Dichlorobenzene	Ave	1.429	1.348	0.6000	0.0189	0.0200	-5.7	20.0
4-Isopropyltoluene	Ave	2.234	2.094		0.0187	0.0200	-6.3	20.0
1,4-Dichlorobenzene	Ave	1.488	1.434	0.5000	0.0193	0.0200	-3.7	20.0
n-Butylbenzene	Ave	1.947	1.682		0.0173	0.0200	-13.6	20.0
1,2-Dichlorobenzene	Ave	1.428	1.334	0.4000	0.0187	0.0200	-6.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVIS 240-274915/3 Calibration Date: 04/17/2017 09:26

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963183.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1458	0.0500	0.0177	0.0200	-11.7	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.6665	0.2000	0.0160	0.0200	-20.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2505		0.0151	0.0200	-24.6*	20.0
Naphthalene	Ave	2.550	2.050		0.0161	0.0200	-19.6	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.5893		0.0142	0.0200	-29.0*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2186		0.0199	0.0200	-0.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2694		0.0184	0.0200	-7.8	20.0
Toluene-d8 (Surr)	Ave	1.264	1.271		0.0201	0.0200	0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4820		0.0210	0.0200	5.0	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Sample No.: ICIS 240-253710/11 Date Analyzed: 10/31/2016 14:44

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX959473.D Heated Purge: (Y/N) N

Calibration ID: 36877

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1089945	5.72	845544	8.42	470846	10.66
UPPER LIMIT		2179890	6.22	1691088	8.92	941692	11.16
LOWER LIMIT		544973	5.22	422772	7.92	235423	10.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-253710/22		1016048	5.72	819306	8.42	452555	10.66
CCVIS 240-274127/3		1168586	5.72	896681	8.41	548505	10.66
CCVIS 240-274539/3		1221393	5.72	972582	8.41	532760	10.65
CCVIS 240-274915/3		1265262	5.72	989904	8.41	559879	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Sample No.: CCVIS 240-274127/3 Date Analyzed: 04/11/2017 08:51

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX963042.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1168586	5.72	896681	8.41	548505	10.66
UPPER LIMIT		2337172	6.22	1793362	8.91	1097010	11.16
LOWER LIMIT		584293	5.22	448341	7.91	274253	10.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-274127/4		1163855	5.73	929247	8.41	532378	10.65
CCV 240-274127/5		1160678	5.72	935304	8.41	483720	10.65
MB 240-274127/7		1088856	5.73	857674	8.41	453449	10.65
240-77879-1	TB-040617	1115840	5.74	904369	8.41	468068	10.65
240-77879-2	MRC-MW71B-040617	1077669	5.73	848046	8.41	425493	10.65
240-77879-3	MRC-MW71A-040617	1084727	5.72	876567	8.41	464662	10.65
240-77879-4	MRC-MW87B-040617	1061723	5.72	879739	8.41	461562	10.65
240-77879-5	MRC-MW29A-040717	1050645	5.73	864057	8.41	451304	10.65
240-77879-6	MRC-MW77A-040717	1077440	5.73	866697	8.41	431726	10.65
240-77879-8	MRC-MW11A-040717	1069244	5.72	851568	8.41	430732	10.65
240-77879-9	MRC-MW87A-040717	1103659	5.73	883770	8.41	467645	10.65
240-77761-C-6 MS		1123027	5.72	906890	8.41	509338	10.65
240-77761-C-6 MSD		1151371	5.72	925763	8.41	539026	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Sample No.: CCVIS 240-274539/3 Date Analyzed: 04/13/2017 09:42

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX963119.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1221393	5.72	972582	8.41	532760	10.65
UPPER LIMIT		2442786	6.22	1945164	8.91	1065520	11.15
LOWER LIMIT		610697	5.22	486291	7.91	266380	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-274539/4		1201367	5.73	925699	8.41	521582	10.65
CCV 240-274539/5		1183574	5.73	958321	8.41	473560	10.65
MB 240-274539/7		1137522	5.73	933163	8.41	484252	10.65
240-77931-1	TB-041017	1144863	5.73	919492	8.41	472859	10.65
240-77931-2	MRC-SWMW-1I-041017	1137868	5.74	927273	8.41	461303	10.65
240-77931-3	MRC-SWMW-2I-041017	1151714	5.72	935272	8.41	482150	10.65
240-77931-4	MRC-SWMW-3I-041017	1142651	5.73	920371	8.41	457068	10.65
240-77931-5	MRC-SWMW-5I-041017	1147823	5.73	909249	8.41	467513	10.65
240-77931-4 MS	MRC-SWMW-3I-041017 MS	1207817	5.74	970116	8.41	538677	10.65
240-77931-4 MSD	MRC-SWMW-3I-041017 MSD	1217925	5.73	942441	8.41	533629	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Sample No.: CCVIS 240-274915/3 Date Analyzed: 04/17/2017 09:26

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX963183.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1265262	5.72	989904	8.41	559879	10.65
UPPER LIMIT		2530524	6.22	1979808	8.91	1119758	11.15
LOWER LIMIT		632631	5.22	494952	7.91	279940	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-274915/4		1268819	5.73	1000177	8.41	567565	10.65
LCSD 240-274915/5		1266948	5.72	1034720	8.41	580104	10.65
CCV 240-274915/6		1282672	5.72	1032236	8.41	528908	10.65
MB 240-274915/8		1189518	5.72	974204	8.41	523636	10.65
240-77967-1	TB-041117	1221758	5.73	971501	8.41	517577	10.65
240-77967-2	MRC-SWMW-4S-041117	1220590	5.73	972063	8.41	502694	10.65
240-77967-3	MRC-MW69B-041117	1204718	5.73	970520	8.41	510838	10.65
240-77967-4	MRC-SWMW-4I-041117	1212716	5.74	962399	8.41	509693	10.66
240-77967-5	MRC-MW69A-041117	1214864	5.74	986789	8.41	506025	10.65
240-77967-6	MRC-MW11C-041117	1197239	5.73	986277	8.41	512337	10.65
240-77967-7	MRC-MW41A-041117	1201368	5.74	975758	8.41	508340	10.65
240-77967-8	MRC-MW12A-041117	1211633	5.72	967766	8.41	513762	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: A3UX9 Start Date: 10/31/2016 12:14

Analysis Batch Number: 253710 End Date: 10/31/2016 21:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-253710/1		10/31/2016 12:14	1	BFB3479.D	DB-624 0.18(mm)
STD8260 240-253710/8 IC		10/31/2016 13:31	1	UX959470.D	DB-624 0.18(mm)
STD8260 240-253710/9 IC		10/31/2016 13:55	1	UX959471.D	DB-624 0.18(mm)
STD8260 240-253710/10 IC		10/31/2016 14:20	1	UX959472.D	DB-624 0.18(mm)
ICIS 240-253710/11		10/31/2016 14:44	1	UX959473.D	DB-624 0.18(mm)
STD8260 240-253710/12 IC		10/31/2016 15:08	1	UX959474.D	DB-624 0.18(mm)
STD8260 240-253710/13 IC		10/31/2016 15:31	1	UX959475.D	DB-624 0.18(mm)
STDA9 240-253710/15 IC		10/31/2016 16:20	1		DB-624 0.18(mm)
STDA9 240-253710/16 IC		10/31/2016 16:44	1		DB-624 0.18(mm)
STDA9 240-253710/17 IC		10/31/2016 17:08	1		DB-624 0.18(mm)
STDA9 240-253710/18 IC		10/31/2016 17:32	1		DB-624 0.18(mm)
STDA9 240-253710/19 IC		10/31/2016 17:56	1		DB-624 0.18(mm)
STDA9 240-253710/20 IC		10/31/2016 18:20	1		DB-624 0.18(mm)
ICV 240-253710/22		10/31/2016 19:09	1	UX959484.D	DB-624 0.18(mm)
ICV 240-253710/23		10/31/2016 19:33	1		DB-624 0.18(mm)
MDLV 240-253710/24		10/31/2016 19:57	1		DB-624 0.18(mm)
MDLV 240-253710/25		10/31/2016 20:22	1		DB-624 0.18(mm)
MDLV 240-253710/26		10/31/2016 20:46	1		DB-624 0.18(mm)
ZZZZZ		10/31/2016 21:10	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: A3UX9 Start Date: 04/11/2017 08:24

Analysis Batch Number: 274127 End Date: 04/11/2017 18:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-274127/1		04/11/2017 08:24	1	BFB3623.D	DB-624 0.18(mm)
CCVIS 240-274127/3		04/11/2017 08:51	1	UX963042.D	DB-624 0.18(mm)
LCS 240-274127/4		04/11/2017 09:15	1	UX963043.D	DB-624 0.18(mm)
CCV 240-274127/5		04/11/2017 09:39	1	UX963044.D	DB-624 0.18(mm)
ZZZZZ		04/11/2017 10:02	1		DB-624 0.18(mm)
MDLV 240-274127/6		04/11/2017 10:26	1		DB-624 0.18(mm)
MB 240-274127/7		04/11/2017 10:51	1	UX963047.D	DB-624 0.18(mm)
ZZZZZ		04/11/2017 12:10	4		DB-624 0.18(mm)
240-77879-1		04/11/2017 12:34	1	UX963049.D	DB-624 0.18(mm)
240-77879-2		04/11/2017 12:58	1.25	UX963050.D	DB-624 0.18(mm)
240-77879-3		04/11/2017 13:22	1	UX963051.D	DB-624 0.18(mm)
240-77879-4		04/11/2017 13:46	1	UX963052.D	DB-624 0.18(mm)
240-77879-5		04/11/2017 14:10	1	UX963053.D	DB-624 0.18(mm)
240-77879-6		04/11/2017 14:34	1	UX963054.D	DB-624 0.18(mm)
240-77879-8		04/11/2017 14:58	1	UX963055.D	DB-624 0.18(mm)
240-77879-9		04/11/2017 15:22	1	UX963056.D	DB-624 0.18(mm)
ZZZZZ		04/11/2017 15:46	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 16:10	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 16:34	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 16:59	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 17:21	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 17:45	1		DB-624 0.18(mm)
ZZZZZ		04/11/2017 18:09	1		DB-624 0.18(mm)
240-77761-C-6 MS		04/11/2017 18:33	4	UX963064.D	DB-624 0.18(mm)
240-77761-C-6 MSD		04/11/2017 18:55	4	UX963065.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: A3UX9 Start Date: 04/13/2017 08:30

Analysis Batch Number: 274539 End Date: 04/13/2017 18:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-274539/1		04/13/2017 08:30	1	BFB3625.D	DB-624 0.18(mm)
CCVIS 240-274539/3		04/13/2017 09:42	1	UX963119.D	DB-624 0.18(mm)
LCS 240-274539/4		04/13/2017 10:06	1	UX963120.D	DB-624 0.18(mm)
CCV 240-274539/5		04/13/2017 10:30	1	UX963121.D	DB-624 0.18(mm)
MDLV 240-274539/6		04/13/2017 10:54	1		DB-624 0.18(mm)
MB 240-274539/7		04/13/2017 11:18	1	UX963123.D	DB-624 0.18(mm)
240-77931-1		04/13/2017 11:54	1	UX963124.D	DB-624 0.18(mm)
240-77931-2		04/13/2017 12:18	1	UX963125.D	DB-624 0.18(mm)
240-77931-3		04/13/2017 12:42	1	UX963126.D	DB-624 0.18(mm)
240-77931-4		04/13/2017 13:06	10	UX963127.D	DB-624 0.18(mm)
240-77931-5		04/13/2017 13:30	1	UX963128.D	DB-624 0.18(mm)
ZZZZZ		04/13/2017 13:54	1		DB-624 0.18(mm)
ZZZZZ		04/13/2017 14:18	1		DB-624 0.18(mm)
ZZZZZ		04/13/2017 14:42	1		DB-624 0.18(mm)
ZZZZZ		04/13/2017 15:06	1		DB-624 0.18(mm)
ZZZZZ		04/13/2017 15:30	1		DB-624 0.18(mm)
ZZZZZ		04/13/2017 15:54	1		DB-624 0.18(mm)
ZZZZZ		04/13/2017 16:18	1		DB-624 0.18(mm)
ZZZZZ		04/13/2017 16:42	1		DB-624 0.18(mm)
ZZZZZ		04/13/2017 17:06	1		DB-624 0.18(mm)
ZZZZZ		04/13/2017 17:30	1		DB-624 0.18(mm)
ZZZZZ		04/13/2017 17:53	1		DB-624 0.18(mm)
240-77931-4 MS		04/13/2017 18:17	10	UX963140.D	DB-624 0.18(mm)
240-77931-4 MSD		04/13/2017 18:41	10	UX963141.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: A3UX9 Start Date: 04/17/2017 08:39

Analysis Batch Number: 274915 End Date: 04/17/2017 18:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-274915/1		04/17/2017 08:39	1	BFB3627.D	DB-624 0.18(mm)
CCVIS 240-274915/3		04/17/2017 09:26	1	UX963183.D	DB-624 0.18(mm)
LCS 240-274915/4		04/17/2017 09:50	1	UX963184.D	DB-624 0.18(mm)
LCSD 240-274915/5		04/17/2017 10:16	1	UX963185.D	DB-624 0.18(mm)
CCV 240-274915/6		04/17/2017 10:40	1	UX963186.D	DB-624 0.18(mm)
MDLV 240-274915/7		04/17/2017 11:04	1		DB-624 0.18(mm)
MB 240-274915/8		04/17/2017 11:28	1	UX963188.D	DB-624 0.18(mm)
ZZZZZ		04/17/2017 12:36	1		DB-624 0.18(mm)
ZZZZZ		04/17/2017 13:00	1		DB-624 0.18(mm)
ZZZZZ		04/17/2017 13:24	1		DB-624 0.18(mm)
240-77967-1		04/17/2017 13:48	1	UX963192.D	DB-624 0.18(mm)
240-77967-2		04/17/2017 14:12	1	UX963193.D	DB-624 0.18(mm)
240-77967-3		04/17/2017 14:36	1	UX963194.D	DB-624 0.18(mm)
240-77967-4		04/17/2017 15:00	1	UX963195.D	DB-624 0.18(mm)
240-77967-5		04/17/2017 15:24	1	UX963196.D	DB-624 0.18(mm)
240-77967-6		04/17/2017 15:48	1	UX963197.D	DB-624 0.18(mm)
240-77967-7		04/17/2017 16:12	1	UX963198.D	DB-624 0.18(mm)
240-77967-8		04/17/2017 16:36	1	UX963199.D	DB-624 0.18(mm)
ZZZZZ		04/17/2017 17:00	1		DB-624 0.18(mm)
ZZZZZ		04/17/2017 17:24	20		DB-624 0.18(mm)
ZZZZZ		04/17/2017 17:48	1		DB-624 0.18(mm)
ZZZZZ		04/17/2017 18:11	1		DB-624 0.18(mm)
ZZZZZ		04/17/2017 18:35	1		DB-624 0.18(mm)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW71B-040617	240-77879-2	52
MRC-MW71A-040617	240-77879-3	46
MRC-MW87B-040617	240-77879-4	107
MRC-MW15A-040717	240-77879-7	48
MRC-MW11A-040717	240-77879-8	96
MRC-MW87A-040717	240-77879-9	58
MRC-DUP07-040717	240-77879-10	65
MRC-MW69B-041117	240-77967-3	65
MRC-MW69A-041117	240-77967-5	53
MRC-MW11C-041117	240-77967-6	46
MRC-MW41A-041117	240-77967-7	73
MRC-MW12A-041117	240-77967-8	71
	MB 200-115961/1-A	80
	MB 200-115993/1-A	66
	MB 200-116120/1-A	114
	LCS 200-115961/2-A	67
	LCS 200-115993/2-A	67
	LCS 200-116120/2-A	108
	LCSD 200-116120/3-A	103

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24828_15.D

Lab ID: LCS 200-115961/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	8.00	5.61	70	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24844_02.D

Lab ID: LCS 200-115993/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	1.43	71	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24866_55.D

Lab ID: LCS 200-116120/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	2.49	125	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24866_56.D

Lab ID: LCSD 200-116120/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	2.00	2.24	112	11	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab File ID: Z24828_16.D Lab Sample ID: MB 200-115961/1-A

Matrix: Water Date Extracted: 04/19/2017 17:45

Instrument ID: CHZ.i Date Analyzed: 04/21/2017 19:06

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-115961/2-A	Z24828_15.D	04/21/2017 18:50
MRC-MW87A-040717	240-77879-9	Z24828_35.D	04/22/2017 00:11
MRC-DUP07-040717	240-77879-10	Z24828_37.D	04/22/2017 00:43
MRC-MW71B-040617	240-77879-2	Z24844_14.D	04/24/2017 13:33
MRC-MW71A-040617	240-77879-3	Z24844_15.D	04/24/2017 13:49
MRC-MW15A-040717	240-77879-7	Z24844_17.D	04/24/2017 14:21

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-115961/1-A

Matrix: Water | Lab File ID: Z24828_16.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 04/19/2017 17:45

Sample wt/vol: 100(mL) | Date Analyzed: 04/21/2017 19:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116016 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	80		46-130

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab File ID: Z24828_59.D Lab Sample ID: MB 200-115993/1-A

Matrix: Water Date Extracted: 04/20/2017 19:30

Instrument ID: CHZ.i Date Analyzed: 04/22/2017 06:37

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
MRC-MW69B-041117	240-77967-3	Z24828_66.D	04/22/2017 08:29
MRC-MW69A-041117	240-77967-5	Z24828_67.D	04/22/2017 08:45
MRC-MW41A-041117	240-77967-7	Z24828_69.D	04/22/2017 09:17
	LCS 200-115993/2-A	Z24844_02.D	04/24/2017 10:21
MRC-MW11C-041117	240-77967-6	Z24844_24.D	04/24/2017 16:13
MRC-MW12A-041117	240-77967-8	Z24844_25.D	04/24/2017 16:29

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-115993/1-A

Matrix: Water | Lab File ID: Z24828_59.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 04/20/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/22/2017 06:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116016 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	66		46-130

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab File ID: Z24866_57.D Lab Sample ID: MB 200-116120/1-A

Matrix: Water Date Extracted: 04/26/2017 09:55

Instrument ID: CHZ.i Date Analyzed: 04/26/2017 23:10

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-116120/2-A	Z24866_55.D	04/26/2017 22:38
	LCSD 200-116120/3-A	Z24866_56.D	04/26/2017 22:54
MRC-MW87B-040617	240-77879-4	Z24866_65.D	04/27/2017 01:19
MRC-MW11A-040717	240-77879-8	Z24866_66.D	04/27/2017 01:35

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77879-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-116120/1-A

Matrix: Water | Lab File ID: Z24866_57.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 04/26/2017 09:55

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 23:10

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	114		46-130

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab File ID: Z24808_02.D BFB Injection Date: 04/20/2017

Instrument ID: CHZ.i BFB Injection Time: 16:38

Analysis Batch No.: 115982

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.8	
75	30.0 - 80.0 % of mass 95	54.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.2	
175	5.0 - 9.0 % of mass 174	5.1	(7.6) 1
176	>95.0 but <101.0 % of mass 174	65.5	(97.6) 1
177	5.0 - 9.0 % of mass 176	4.2	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-115982/4	Z24808_04.D	04/20/2017	17:21
	IC 200-115982/7	Z24808_07.D	04/20/2017	18:08
	IC 200-115982/9	Z24808_09.D	04/20/2017	18:41
	ICV 200-115982/10	Z24808_10.D	04/20/2017	18:57
	CCV 200-116016/12	Z24828_12.D	04/21/2017	18:02
	LCS 200-115961/2-A	Z24828_15.D	04/21/2017	18:50
	MB 200-115961/1-A	Z24828_16.D	04/21/2017	19:06
	CCV 200-116016/25	Z24828_25.D	04/21/2017	21:30
MRC-MW87A-040717	240-77879-9	Z24828_35.D	04/22/2017	00:11
	CCV 200-116016/36	Z24828_36.D	04/22/2017	00:27
MRC-DUP07-040717	240-77879-10	Z24828_37.D	04/22/2017	00:43
	CCV 200-116016/49	Z24828_49.D	04/22/2017	03:56
	MB 200-115993/1-A	Z24828_59.D	04/22/2017	06:37
	CCV 200-116016/62	Z24828_62.D	04/22/2017	07:25
MRC-MW69B-041117	240-77967-3	Z24828_66.D	04/22/2017	08:29
MRC-MW69A-041117	240-77967-5	Z24828_67.D	04/22/2017	08:45
MRC-MW41A-041117	240-77967-7	Z24828_69.D	04/22/2017	09:17
	CCV 200-116016/73	Z24828_73.D	04/22/2017	10:22
	CCVL 200-116045/1	Z24844_01.D	04/24/2017	10:06
	LCS 200-115993/2-A	Z24844_02.D	04/24/2017	10:21
	CCV 200-116045/13	Z24844_13.D	04/24/2017	13:17
MRC-MW71B-040617	240-77879-2	Z24844_14.D	04/24/2017	13:33
MRC-MW71A-040617	240-77879-3	Z24844_15.D	04/24/2017	13:49
MRC-MW15A-040717	240-77879-7	Z24844_17.D	04/24/2017	14:21
	CCV 200-116045/23	Z24844_23.D	04/24/2017	15:57
MRC-MW11C-041117	240-77967-6	Z24844_24.D	04/24/2017	16:13
MRC-MW12A-041117	240-77967-8	Z24844_25.D	04/24/2017	16:29
	CCV 200-116045/37	Z24844_37.D	04/24/2017	19:42

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab File ID: BFB Injection Date:

Instrument ID: BFB Injection Time:

Lab File ID: DFTPP Injection Date:

Instrument ID: DFTPP Injection Time:

Analysis Batch No.:

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

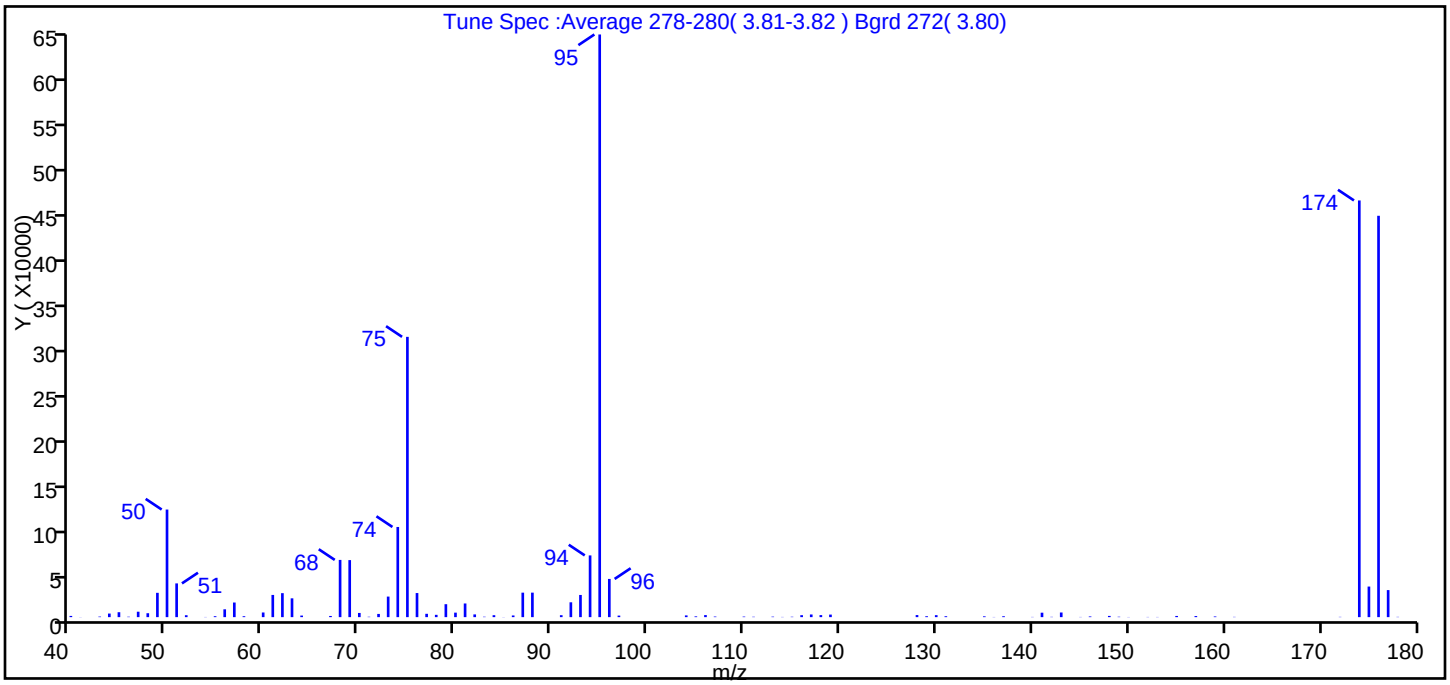
CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 200-115982/6	Z24808_06.D	04/20/2017	17:52
	CCV 200-116119/50	Z24866_50.D	04/26/2017	21:17
	LCS 200-116120/2-A	Z24866_55.D	04/26/2017	22:38
	LCSD 200-116120/3-A	Z24866_56.D	04/26/2017	22:54
	MB 200-116120/1-A	Z24866_57.D	04/26/2017	23:10
	CCV 200-116119/64	Z24866_64.D	04/27/2017	01:03
MRC-MW87B-040617	240-77879-4	Z24866_65.D	04/27/2017	01:19
MRC-MW11A-040717	240-77879-8	Z24866_66.D	04/27/2017	01:35
	CCV 200-116119/75	Z24866_75.D	04/27/2017	04:00

MS Tune Report

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHZ.i\20170425-24865.b\Z24865_01.D
Injection Date: 25-Apr-2017 14:41:30 Instrument ID: CHZ.i
Lims ID: BFB
Client ID:
Operator ID: djb ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 100.0 uL Dil. Factor: 1.0000
Method: 522_MOD_Z Limit Group: SV_522_Limits
Tune Method: BFB Method 524

$ 4 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100.0
50	15-40% of mass 95	18.5
75	30-80% of mass 95	48.1
96	5-9% of mass 95	6.6
173	<2% of mass 174	0.0 (0.0)
174	>50% of mass 95	71.5
175	5-9% of mass 174	5.2 (7.3)
176	>95% but <101% of mass 174	68.9 (96.3)
177	5-9% of mass 176	4.6 (6.7)

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Sample No.: ICIS 200-115982/6 Date Analyzed: 04/20/2017 17:52

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24808_06.D Heated Purge: (Y/N) N

Calibration ID: 37126

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		184600	3.45				
UPPER LIMIT		276900	3.95				
LOWER LIMIT		92300	2.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-115982/10		164476	3.44				
CCV 200-116016/12		118384	3.43				
LCS 200-115961/2-A		119950	3.42				
MB 200-115961/1-A		124036	3.44				
CCV 200-116016/25		113092	3.42				
240-77879-9	MRC-MW87A-040717	111344	3.42				
CCV 200-116016/36		125790	3.44				
240-77879-10	MRC-DUP07-040717	131281	3.44				
CCV 200-116016/49		114821	3.44				
MB 200-115993/1-A		138201	3.49				
CCV 200-116016/62		125531	3.45				
240-77967-3	MRC-MW69B-041117	121418	3.44				
240-77967-5	MRC-MW69A-041117	145861	3.48				
240-77967-7	MRC-MW41A-041117	126936	3.46				
CCV 200-116016/73		115289	3.44				
CCVL 200-116045/1		104184	3.44				
LCS 200-115993/2-A		100855	3.44				
CCV 200-116045/13		105818	3.44				
240-77879-2	MRC-MW71B-040617	113399	3.45				
240-77879-3	MRC-MW71A-040617	115905	3.46				
240-77879-7	MRC-MW15A-040717	106821	3.45				
CCV 200-116045/23		96683	3.43				
240-77967-6	MRC-MW11C-041117	108098	3.45				
240-77967-8	MRC-MW12A-041117	99114	3.45				
CCV 200-116045/37		103755	3.44				
CCV 200-116119/50		153537	3.44				
LCS 200-116120/2-A		148269	3.44				
LCSD 200-116120/3-A		156033	3.45				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Sample No.: ICIS 200-115982/6 Date Analyzed: 04/20/2017 17:52

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24808_06.D Heated Purge: (Y/N) N

Calibration ID: 37126

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		184600	3.45				
UPPER LIMIT		276900	3.95				
LOWER LIMIT		92300	2.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 200-116120/1-A		148655	3.44				
CCV 200-116119/64		150853	3.44				
240-77879-4	MRC-MW87B-040617	153026	3.45				
240-77879-8	MRC-MW11A-040717	144803	3.44				
CCV 200-116119/75		139768	3.43				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-77879-1 Analy Batch No.: 115982

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2017 17:05 Calibration End Date: 04/20/2017 18:41 Calibration ID: 37126

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-115982/9	Z24808_09.D
Level 2	IC 200-115982/8	Z24808_08.D
Level 3	IC 200-115982/7	Z24808_07.D
Level 4	ICIS 200-115982/6	Z24808_06.D
Level 5	IC 200-115982/5	Z24808_05.D
Level 6	IC 200-115982/4	Z24808_04.D
Level 7	IC 200-115982/11	Z24808_11.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.9371 0.8322	0.9125 0.8513	0.8873	0.8494	0.8061	Ave		0.8680			0.0500	5.3		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.6043 0.6072	0.5956 0.6322	0.6217	0.6120	0.5970	Ave		0.6100				2.2		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-77879-1 Analy Batch No.: 115982

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2017 17:05 Calibration End Date: 04/20/2017 18:41 Calibration ID: 37126

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-115982/9	Z24808_09.D
Level 2	IC 200-115982/8	Z24808_08.D
Level 3	IC 200-115982/7	Z24808_07.D
Level 4	ICIS 200-115982/6	Z24808_06.D
Level 5	IC 200-115982/5	Z24808_05.D
Level 6	IC 200-115982/4	Z24808_04.D
Level 7	IC 200-115982/11	Z24808_11.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	3250 120608	6527 248676	15645	31361	59327	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	104786 110003	106504 115418	109626	112970	109839	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICV 200-115982/10 Calibration Date: 04/20/2017 18:57

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24808_10.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.7986	0.0500	184	200	-8.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116016/12 Calibration Date: 04/21/2017 18:02

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24828_12.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8878	0.0500	102	100	2.3	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6369	0.0500	522	500	4.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116016/25 Calibration Date: 04/21/2017 21:30

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24828_25.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8068	0.0500	744	800	-7.1	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.5923	0.0500	485	500	-2.9	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116016/36 Calibration Date: 04/22/2017 00:27

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24828_36.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8341	0.0500	96.1	100	-3.9	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6079	0.0500	498	500	-0.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116016/49 Calibration Date: 04/22/2017 03:56

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24828_49.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8443	0.0500	778	800	-2.7	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.5782	0.0500	474	500	-5.2	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116016/62 Calibration Date: 04/22/2017 07:25

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24828_62.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8679	0.0500	100	100	-0.0	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6185	0.0500	507	500	1.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116016/73 Calibration Date: 04/22/2017 10:22

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24828_73.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8190	0.0500	755	800	-5.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.5864	0.0500	481	500	-3.9	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVL 200-116045/1 Calibration Date: 04/24/2017 10:06

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24844_01.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9368	0.0500	10.8	10.0	7.9	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.5978	0.0500	490	500	-2.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116045/13 Calibration Date: 04/24/2017 13:17

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24844_13.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8797	0.0500	101	100	1.3	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.5909	0.0500	484	500	-3.1	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116045/23 Calibration Date: 04/24/2017 15:57

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24844_23.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8445	0.0500	778	800	-2.7	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.5923	0.0500	485	500	-2.9	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116045/37 Calibration Date: 04/24/2017 19:42

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24844_37.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8079	0.0500	93.1	100	-6.9	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6191	0.0500	507	500	1.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116119/50 Calibration Date: 04/26/2017 21:17

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24866_50.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9684	0.0500	893	800	11.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.7105	0.0500	582	500	16.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116119/64 Calibration Date: 04/27/2017 01:03

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24866_64.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	1.046	0.0500	120	100	20.5	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.7069	0.0500	579	500	15.9	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 200-116119/75 Calibration Date: 04/27/2017 04:00

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24866_75.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9537	0.0500	879	800	9.9	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.7180	0.0500	589	500	17.7	30.0

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/20/2017 16:23

Analysis Batch Number: 115982 End Date: 04/20/2017 18:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/20/2017 16:23	1		Rxi-5ms 0.25(mm)
BFB 200-115982/2		04/20/2017 16:38	1	Z24808_02.D	Rxi-5ms 0.25(mm)
CCV 200-115982/3		04/20/2017 16:49	1		Rxi-5ms 0.25(mm)
IC 200-115982/11		04/20/2017 17:05	1	Z24808_11.D	Rxi-5ms 0.25(mm)
IC 200-115982/4		04/20/2017 17:21	1	Z24808_04.D	Rxi-5ms 0.25(mm)
IC 200-115982/5		04/20/2017 17:36	1	Z24808_05.D	Rxi-5ms 0.25(mm)
ICIS 200-115982/6		04/20/2017 17:52	1	Z24808_06.D	Rxi-5ms 0.25(mm)
IC 200-115982/7		04/20/2017 18:08	1	Z24808_07.D	Rxi-5ms 0.25(mm)
IC 200-115982/8		04/20/2017 18:25	1	Z24808_08.D	Rxi-5ms 0.25(mm)
IC 200-115982/9		04/20/2017 18:41	1	Z24808_09.D	Rxi-5ms 0.25(mm)
ICV 200-115982/10		04/20/2017 18:57	1	Z24808_10.D	Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/21/2017 15:05

Analysis Batch Number: 116016 End Date: 04/22/2017 13:18

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-116016/1		04/21/2017 15:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 15:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 15:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 15:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 16:09	5		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 16:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 16:41	6.667		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 16:57	100		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 17:13	2		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 17:29	100		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 17:46	4		Rxi-5ms 0.25(mm)
CCV 200-116016/12		04/21/2017 18:02	1	Z24828_12.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 18:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 18:34	4		Rxi-5ms 0.25(mm)
LCS 200-115961/2-A		04/21/2017 18:50	1	Z24828_15.D	Rxi-5ms 0.25(mm)
MB 200-115961/1-A		04/21/2017 19:06	1	Z24828_16.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 19:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 19:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 19:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 20:10	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 20:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 20:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 20:58	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 21:14	1		Rxi-5ms 0.25(mm)
CCV 200-116016/25		04/21/2017 21:30	1	Z24828_25.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 21:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 22:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 22:19	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 22:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 22:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 23:07	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 23:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 23:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/21/2017 23:55	1		Rxi-5ms 0.25(mm)
240-77879-9		04/22/2017 00:11	1	Z24828_35.D	Rxi-5ms 0.25(mm)
CCV 200-116016/36		04/22/2017 00:27	1	Z24828_36.D	Rxi-5ms 0.25(mm)
240-77879-10		04/22/2017 00:43	1	Z24828_37.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 00:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 01:15	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 01:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 01:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 02:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 02:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 02:36	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 02:52	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/21/2017 15:05

Analysis Batch Number: 116016 End Date: 04/22/2017 13:18

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/22/2017 03:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 03:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 03:40	1		Rxi-5ms 0.25(mm)
CCV 200-116016/49		04/22/2017 03:56	1	Z24828_49.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 04:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 04:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 04:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 05:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 05:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 05:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 05:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 06:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 06:21	1		Rxi-5ms 0.25(mm)
MB 200-115993/1-A		04/22/2017 06:37	1	Z24828_59.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 06:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 07:09	1		Rxi-5ms 0.25(mm)
CCV 200-116016/62		04/22/2017 07:25	1	Z24828_62.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 07:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 07:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 08:13	1		Rxi-5ms 0.25(mm)
240-77967-3		04/22/2017 08:29	1	Z24828_66.D	Rxi-5ms 0.25(mm)
240-77967-5		04/22/2017 08:45	1	Z24828_67.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 09:01	1		Rxi-5ms 0.25(mm)
240-77967-7		04/22/2017 09:17	1	Z24828_69.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 09:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 09:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 10:06	1		Rxi-5ms 0.25(mm)
CCV 200-116016/73		04/22/2017 10:22	1	Z24828_73.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 10:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 10:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 11:10	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 11:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 11:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 11:58	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 12:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 12:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 12:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/22/2017 13:02	1		Rxi-5ms 0.25(mm)
CCV 200-116016/84		04/22/2017 13:18	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/24/2017 10:06

Analysis Batch Number: 116045 End Date: 04/24/2017 23:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-116045/1		04/24/2017 10:06	1	Z24844_01.D	Rxi-5ms 0.25(mm)
LCS 200-115993/2-A		04/24/2017 10:21	1	Z24844_02.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 10:37	5		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 10:53	100		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 11:09	2		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 11:25	100		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 11:41	4		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 11:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 12:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 12:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 12:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 13:01	200		Rxi-5ms 0.25(mm)
CCV 200-116045/13		04/24/2017 13:17	1	Z24844_13.D	Rxi-5ms 0.25(mm)
240-77879-2		04/24/2017 13:33	3.333	Z24844_14.D	Rxi-5ms 0.25(mm)
240-77879-3		04/24/2017 13:49	1	Z24844_15.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 14:05	1		Rxi-5ms 0.25(mm)
240-77879-7		04/24/2017 14:21	1	Z24844_17.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 14:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 14:53	20		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 15:09	20		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 15:25	2.5		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 15:41	1		Rxi-5ms 0.25(mm)
CCV 200-116045/23		04/24/2017 15:57	1	Z24844_23.D	Rxi-5ms 0.25(mm)
240-77967-6		04/24/2017 16:13	1	Z24844_24.D	Rxi-5ms 0.25(mm)
240-77967-8		04/24/2017 16:29	16.667	Z24844_25.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 16:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 17:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 17:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 17:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 17:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 18:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 18:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 18:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 18:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 19:10	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 19:26	1		Rxi-5ms 0.25(mm)
CCV 200-116045/37		04/24/2017 19:42	1	Z24844_37.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 19:58	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 20:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 20:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 20:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 21:02	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 21:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 21:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 21:50	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/24/2017 10:06

Analysis Batch Number: 116045 End Date: 04/24/2017 23:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/24/2017 22:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 22:22	1		Rxi-5ms 0.25(mm)
CCV 200-116045/48		04/24/2017 22:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 22:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 23:10	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 23:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/24/2017 23:41	1		Rxi-5ms 0.25(mm)
CCV 200-116045/53		04/24/2017 23:57	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/25/2017 14:41

Analysis Batch Number: 116110 End Date: 04/25/2017 22:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-116110/1		04/25/2017 14:41	1	Z24865_01.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 15:14	1		Rxi-5ms 0.25(mm)
CCVL 200-116110/3		04/25/2017 15:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 16:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 16:21	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 16:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 16:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 17:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 17:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 17:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 17:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 18:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 18:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 18:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 19:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 19:17	1		Rxi-5ms 0.25(mm)
CCV 200-116110/17		04/25/2017 19:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 19:49	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 20:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 20:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 20:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 20:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 21:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 21:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 21:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 21:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 22:13	1		Rxi-5ms 0.25(mm)
CCV 200-116110/28		04/25/2017 22:29	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/26/2017 07:59

Analysis Batch Number: 116119 End Date: 04/27/2017 07:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-116119/1		04/26/2017 07:59	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 08:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 08:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 08:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 09:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 09:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 09:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 10:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 10:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 10:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 10:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 11:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 11:21	1		Rxi-5ms 0.25(mm)
CCV 200-116119/14		04/26/2017 11:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 11:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 12:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 12:26	10		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 12:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 12:58	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 13:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 13:30	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 13:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 14:02	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 14:18	1		Rxi-5ms 0.25(mm)
CCV 200-116119/25		04/26/2017 14:35	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 14:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 15:07	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 15:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 15:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 15:56	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 16:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 16:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 16:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 17:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 17:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 17:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 17:49	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 18:05	1		Rxi-5ms 0.25(mm)
CCV 200-116119/39		04/26/2017 18:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 18:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 18:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 19:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 19:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 19:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 19:57	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/26/2017 07:59

Analysis Batch Number: 116119 End Date: 04/27/2017 07:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/26/2017 20:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 20:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 20:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 21:01	1		Rxi-5ms 0.25(mm)
CCV 200-116119/50		04/26/2017 21:17	1	Z24866_50.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 21:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 21:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 22:06	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 22:22	1		Rxi-5ms 0.25(mm)
LCS 200-116120/2-A		04/26/2017 22:38	1	Z24866_55.D	Rxi-5ms 0.25(mm)
LCSD 200-116120/3-A		04/26/2017 22:54	1	Z24866_56.D	Rxi-5ms 0.25(mm)
MB 200-116120/1-A		04/26/2017 23:10	1	Z24866_57.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 23:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 23:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/26/2017 23:58	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 00:14	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 00:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 00:47	1		Rxi-5ms 0.25(mm)
CCV 200-116119/64		04/27/2017 01:03	1	Z24866_64.D	Rxi-5ms 0.25(mm)
240-77879-4		04/27/2017 01:19	1	Z24866_65.D	Rxi-5ms 0.25(mm)
240-77879-8		04/27/2017 01:35	1	Z24866_66.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 01:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 02:07	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 02:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 02:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 02:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 03:11	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 03:27	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 03:43	1		Rxi-5ms 0.25(mm)
CCV 200-116119/75		04/27/2017 04:00	1	Z24866_75.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 04:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 04:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 04:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 05:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 05:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 05:36	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 05:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 06:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 06:24	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 06:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 06:56	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 07:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/27/2017 07:28	1		Rxi-5ms 0.25(mm)
CCV 200-116119/89		04/27/2017 07:44	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Batch Number: 115961 Batch Start Date: 04/19/17 17:45 Batch Analyst: Litchfield, Brian D

Batch Method: 3535A Batch End Date: 04/19/17 18:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00026		
MB 200-115961/1		3535A, 522		100 mL	2 mL		100 uL		
LCS 200-115961/2		3535A, 522		100 mL	2 mL	400 uL	100 uL		
240-77879-E-2	MRC-MW71B-040617	3535A, 522	T	100 mL	2 mL		100 uL		
240-77879-D-3	MRC-MW71A-040617	3535A, 522	T	100 mL	2 mL		100 uL		
240-77879-B-7	MRC-MW15A-040717	3535A, 522	T	100 mL	2 mL		100 uL		
240-77879-D-9	MRC-MW87A-040717	3535A, 522	T	100 mL	2 mL		100 uL		
240-77879-A-10	MRC-DUP07-040717	3535A, 522	T	100 mL	2 mL		100 uL		

Batch Notes	
Acid ID	1018022
Acid Name	hcl
First End time	4/19/17 1815
Analyst ID - Reagent Drop Witness	MAP
Solvent Lot #	1031535
Solvent Name	mecl2
SPE Cartridge ID	022085-er
First Start time	4/19/17 1745

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Batch Number: 115993 Batch Start Date: 04/20/17 19:30 Batch Analyst: Litchfield, Brian D

Batch Method: 3535A Batch End Date: 04/20/17 19:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00026		
MB 200-115993/1		3535A, 522		100 mL	2 mL		100 uL		
LCS 200-115993/2		3535A, 522		100 mL	2 mL	100 uL	100 uL		
240-77967-D-3	MRC-MW69B-041117	3535A, 522	T	100 mL	2 mL		100 uL		
240-77967-E-5	MRC-MW69A-041117	3535A, 522	T	100 mL	2 mL		100 uL		
240-77967-D-6	MRC-MW11C-041117	3535A, 522	T	100 mL	2 mL		100 uL		
240-77967-E-7	MRC-MW41A-041117	3535A, 522	T	100 mL	2 mL		100 uL		
240-77967-J-8	MRC-MW12A-041117	3535A, 522	T	100 mL	2 mL		100 uL		

Batch Notes	
Acid ID	1018022
Acid Name	hcl
First End time	4/20/17 1945
Analyst ID - Reagent Drop Witness	MAP
Solvent Lot #	1031535
Solvent Name	mecl2
SPE Cartridge ID	022022-er
First Start time	4/20/17 1930

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-77879-1

SDG No.:

Batch Number: 116120 Batch Start Date: 04/26/17 09:55 Batch Analyst: Murray, John W

Batch Method: 3535A Batch End Date: 04/26/17 11:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00012	EX522SUi 00026	AnalysisComment	
MB 200-116120/1		3535A, 522		100 mL	2 mL		100 uL		
LCS 200-116120/2		3535A, 522		100 mL	2 mL	100 uL	100 uL		
LCSD 200-116120/3		3535A, 522		100 mL	2 mL	100 uL	100 uL		
240-77879-D-4	MRC-MW87B-040617	3535A, 522	T	100 mL	2 mL		100 uL	Re-extract	
240-77879-D-8	MRC-MW11A-040717	3535A, 522	T	100 mL	2 mL		100 uL	Re-extract	

Batch Notes	
Acid ID	1018022
Acid Name	HCl
Batch Comment	Contains re-extracts
First End time	1110
Analyst ID - Reagent Drop Witness	ERJ
Solvent Lot #	1031535
Solvent Name	MeCl2
SPE Cartridge ID	022085-ER
First Start time	0955

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-PLOT/Q ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TFE1 #
MRC-MW12A-041117	240-77967-8	84
MRC-MW12A-041117	240-77967-8	87
	MB 240-274857/4	92
	MB 240-275129/4	87
	LCS 240-274857/5	82
	LCS 240-275129/5	84
MRC-MW12A-041117 MS	240-77967-8 MS	83
MRC-MW12A-041117 MSD	240-77967-8 MSD	80

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	76-121

Column to be used to flag recovery values

FORM II RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0415005.D

Lab ID: LCS 240-274857/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	199	202	101	80-130	
Ethane	374	359	96	76-131	
Ethylene	349	331	95	79-132	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0418005.D

Lab ID: LCS 240-275129/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	199	194	97	80-130	
Ethane	374	345	92	76-131	
Ethylene	349	328	94	79-132	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0418008.D

Lab ID: 240-77967-8 MS Client ID: MRC-MW12A-041117 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Methane	1990	8000	11100	153	48-159	4
Ethane	3740	11	3500	93	65-126	
Ethylene	3490	16	3340	95	60-135	

methane = sample concentration greater than 4X spike added. no qualifications.

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0418009.D

Lab ID: 240-77967-8 MSD Client ID: MRC-MW12A-041117 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methane	1990	11700	184	5	23	48-159	4
Ethane	3740	3460	92	1	11	65-126	
Ethylene	3490	3300	94	1	10	60-135	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: MB 240-274857/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0415004.D Lab File ID:(2)

Date Analyzed:(1) 04/15/2017 14:10 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-274857/5	04/15/2017 14:27	
MRC-MW12A-041117	240-77967-8	04/15/2017 16:44	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-274857/4

Matrix: Water Lab File ID: RSK0415004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 33(mL) Date Analyzed: 04/15/2017 14:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 274857 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.080	U	0.50	0.080
74-84-0	Ethane	0.14	U	0.50	0.14
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	92		76-121

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: MB 240-275129/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0418004.D Lab File ID:(2)

Date Analyzed:(1) 04/18/2017 14:22 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-275129/5	04/18/2017 14:40	
MRC-MW12A-041117	240-77967-8	04/18/2017 15:14	
MRC-MW12A-041117 MS	240-77967-8 MS	04/18/2017 15:31	
MRC-MW12A-041117 MSD	240-77967-8 MSD	04/18/2017 15:48	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-275129/4

Matrix: Water Lab File ID: RSK0418004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 33(mL) Date Analyzed: 04/18/2017 14:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 275129 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.080	U	0.50	0.080
74-84-0	Ethane	0.14	U	0.50	0.14
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	87		76-121

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Sample No.: STD3 240-251578/5 Date Analyzed: 10/15/2016 15:31

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0101505.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
INITIAL CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-251578/5 ICRT		10/15/2016 15:31	RSK0101505.D	3.34		
ICV 240-251578/9		10/15/2016 16:39	RSK0101509.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Sample No.: CCVRT 240-274857/3 Date Analyzed: 04/15/2017 13:53

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0415003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-274857/3		04/15/2017 13:53	RSK0415003.D	3.34		
MB 240-274857/4		04/15/2017 14:10	RSK0415004.D	3.34		
LCS 240-274857/5		04/15/2017 14:27	RSK0415005.D	3.34		
240-77967-8	MRC-MW12A-041117	04/15/2017 16:44	RSK0415013.D	3.34		
CCV 240-274857/14		04/15/2017 17:02	RSK0415014.D	3.33		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Sample No.: CCVRT 240-275129/3 Date Analyzed: 04/18/2017 14:05

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0418003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-275129/3		04/18/2017 14:05	RSK0418003.D	3.34		
MB 240-275129/4		04/18/2017 14:22	RSK0418004.D	3.34		
LCS 240-275129/5		04/18/2017 14:40	RSK0418005.D	3.34		
240-77967-8	MRC-MW12A-041117	04/18/2017 15:14	RSK0418007.D	3.34		
240-77967-8 MS	MRC-MW12A-041117 MS	04/18/2017 15:31	RSK0418008.D	3.34		
240-77967-8 MSD	MRC-MW12A-041117 MSD	04/18/2017 15:48	RSK0418009.D	3.34		
CCV 240-275129/14		04/18/2017 17:14	RSK0418014.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Methane	1.181	1.182	1.182	1.183	1.180	1.182					1.132 - 1.232	1.182
Ethylene	1.877	1.879	1.879	1.879	1.877	1.872					1.822 - 1.922	1.877
Acetylene	1.991	1.992	1.992	1.993	1.990	1.988					1.938 - 2.038	1.991
Ethane	2.201	2.199	2.199	2.203	2.197	2.192					1.992 - 2.392	2.199
Propane	4.544	4.546	4.546	4.546	4.537	4.522					4.472 - 4.572	4.540
1,1,1-Trifluoroethane	3.344	3.342	3.339	3.336	3.327						3.239 - 3.439	3.338

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Methane	17282 15031	14572 14891	15021	15273	Ave		15344.8970				6.4		30.0			
Ethylene	13272 13787	13164 13601	13786	13941	Ave		13591.7814				2.3		30.0			
Acetylene	6429.5 6415.6	5892.3 6088.3	6401.9	6607.6	Ave		6305.86557				4.2		30.0			
Ethane	13684 14544	13730 14408	14353	14588	Ave		14217.7545				2.9		30.0			
Propane	13814 15013	13864 14908	14731	14670	Ave		14499.9021				3.6		30.0			
1,1,1-Trifluoroethane	7519.7 7756.9	8027.5	7602.5	8141.8	Ave		7809.65873				3.4		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77879-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methane	Ave	4466 29592381	28968	149298	1518050	5973962	0.258 1987	1.99	9.94	99.4	397
Ethylene	Ave	6023 47472057	45954	240631	2433289	9624127	0.454 3490	3.49	17.5	175	698
Acetylene	Ave	2700 19661432	19034	103400	1067223	4143730	0.420 3229	3.23	16.2	162	646
Ethane	Ave	6652 53866713	51341	268353	2727568	10875652	0.486 3739	3.74	18.7	187	748
Propane	Ave	9839 81662046	75958	403531	4018573	16448361	0.712 5478	5.48	27.4	274	1096
1,1,1-Trifluoroethane	Ave	1961483	4187852	19830722	42474965	80933618	261	522	2608	5217	10434

Curve Type Legend:
Ave = Average

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICV 240-251578/9 Calibration Date: 10/15/2016 16:39

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0101509.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	12457		161	199	-18.8	30.0
Ethylene	Ave	13592	11508		296	349	-15.3	30.0
Acetylene	Ave	6306	5081		260	323	-19.4	30.0
Ethane	Ave	14218	12173		320	374	-14.4	30.0
Propane	Ave	14500	12390		467	546	-14.6	30.0
1,1,1-Trifluoroethane	Ave	7810	6762		2640	3050	-13.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICV 240-251578/9 Calibration Date: 10/15/2016 16:39

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0101509.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.88	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.20	1.99	2.39
Propane	4.54	4.47	4.57
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVRT 240-274857/3 Calibration Date: 04/15/2017 13:53

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0415003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15187		197	199	-1.0	30.0
Ethylene	Ave	13592	12651		325	349	-6.9	30.0
Acetylene	Ave	6306	5029		258	323	-20.2	30.0
Ethane	Ave	14218	13388		352	374	-5.8	30.0
Propane	Ave	14500	11983		453	548	-17.4	30.0
1,1,1-Trifluoroethane	Ave	7810	6338		2480	3050	-18.8	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVRT 240-274857/3 Calibration Date: 04/15/2017 13:53

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0415003.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.87	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.19	1.99	2.39
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 240-274857/14 Calibration Date: 04/15/2017 17:02

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0415014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15306		198	199	-0.3	30.0
Ethylene	Ave	13592	12223		314	349	-10.1	30.0
Acetylene	Ave	6306	5069		260	323	-19.6	30.0
Ethane	Ave	14218	13293		350	374	-6.5	30.0
Propane	Ave	14500	11730		443	548	-19.1	30.0
1,1,1-Trifluoroethane	Ave	7810	6195		2420	3050	-20.7	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 240-274857/14 Calibration Date: 04/15/2017 17:02

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0415014.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.87	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.19	1.99	2.39
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.33	3.23	3.43

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVRT 240-275129/3 Calibration Date: 04/18/2017 14:05

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0418003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14985		194	199	-2.3	30.0
Ethylene	Ave	13592	12824		329	349	-5.7	30.0
Acetylene	Ave	6306	5655		290	323	-10.3	30.0
Ethane	Ave	14218	13158		346	374	-7.5	30.0
Propane	Ave	14500	11578		437	548	-20.2	30.0
1,1,1-Trifluoroethane	Ave	7810	6548		2560	3050	-16.2	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCVRT 240-275129/3 Calibration Date: 04/18/2017 14:05

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0418003.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 240-275129/14 Calibration Date: 04/18/2017 17:14

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0418014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14854		192	199	-3.2	30.0
Ethylene	Ave	13592	12226		314	349	-10.1	30.0
Acetylene	Ave	6306	4828		247	323	-23.4	30.0
Ethane	Ave	14218	12889		339	374	-9.3	30.0
Propane	Ave	14500	11225		424	548	-22.6	30.0
1,1,1-Trifluoroethane	Ave	7810	6164		2410	3050	-21.1	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: CCV 240-275129/14 Calibration Date: 04/18/2017 17:14

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0418014.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: ZPID Start Date: 10/15/2016 14:57

Analysis Batch Number: 251578 End Date: 10/15/2016 16:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-251578/3 IC		10/15/2016 14:57	1	RSK0101503.D	HP-PLOT/Q 0.53(mm)
STD2 240-251578/4 IC		10/15/2016 15:14	1	RSK0101504.D	HP-PLOT/Q 0.53(mm)
STD3 240-251578/5 ICRT		10/15/2016 15:31	1	RSK0101505.D	HP-PLOT/Q 0.53(mm)
STD4 240-251578/6 IC		10/15/2016 15:48	1	RSK0101506.D	HP-PLOT/Q 0.53(mm)
STD5 240-251578/7 IC		10/15/2016 16:05	1	RSK0101507.D	HP-PLOT/Q 0.53(mm)
STD6 240-251578/8 IC		10/15/2016 16:22	1	RSK0101508.D	HP-PLOT/Q 0.53(mm)
ICV 240-251578/9		10/15/2016 16:39	1	RSK0101509.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: ZPID Start Date: 04/15/2017 13:53

Analysis Batch Number: 274857 End Date: 04/15/2017 17:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-274857/3		04/15/2017 13:53	1	RSK0415003.D	HP-PLOT/Q 0.53(mm)
MB 240-274857/4		04/15/2017 14:10	1	RSK0415004.D	HP-PLOT/Q 0.53(mm)
LCS 240-274857/5		04/15/2017 14:27	1	RSK0415005.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/15/2017 15:02	2		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/15/2017 15:19	2		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/15/2017 15:36	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/15/2017 15:53	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/15/2017 16:10	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/15/2017 16:27	1		HP-PLOT/Q 0.53(mm)
240-77967-8		04/15/2017 16:44	1	RSK0415013.D	HP-PLOT/Q 0.53(mm)
CCV 240-274857/14		04/15/2017 17:02	1	RSK0415014.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: ZPID Start Date: 04/18/2017 14:05

Analysis Batch Number: 275129 End Date: 04/18/2017 19:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-275129/3		04/18/2017 14:05	1	RSK0418003.D	HP-PLOT/Q 0.53(mm)
MB 240-275129/4		04/18/2017 14:22	1	RSK0418004.D	HP-PLOT/Q 0.53(mm)
LCS 240-275129/5		04/18/2017 14:40	1	RSK0418005.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 14:57	1		HP-PLOT/Q 0.53(mm)
240-77967-8		04/18/2017 15:14	10	RSK0418007.D	HP-PLOT/Q 0.53(mm)
240-77967-8 MS		04/18/2017 15:31	10	RSK0418008.D	HP-PLOT/Q 0.53(mm)
240-77967-8 MSD		04/18/2017 15:48	10	RSK0418009.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 16:05	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 16:23	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 16:40	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 16:57	1		HP-PLOT/Q 0.53(mm)
CCV 240-275129/14		04/18/2017 17:14	1	RSK0418014.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 17:31	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 17:48	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 18:06	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 18:23	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 18:40	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 18:57	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/18/2017 19:14	1		HP-PLOT/Q 0.53(mm)
CCV 240-275129/22		04/18/2017 19:31	1		HP-PLOT/Q 0.53(mm)

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG No.:

Project: MRC 2017 GW

Client Sample ID	Lab Sample ID
MRC-MW71B-040617	240-77879-2
MRC-MW71A-040617	240-77879-3
MRC-MW11A-040717	240-77879-8
MRC-MW11C-041117	240-77967-6
MRC-MW12A-041117	240-77967-8
MRC-DUP08-041117	240-77967-9

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00095

Analyte	ICV 240-274788/4 04/14/2017 08:44				CCV 240-274788/49 04/14/2017 12:48				CCV 240-274788/61 04/14/2017 13:41			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24700		25000	99	50900		50000	102	50000		50000	100
Magnesium	26000		25000	104	51000		50000	102	49600		50000	99
Potassium	25000		25000	100	49900		50000	100	49900		50000	100
SiO2, Silica	6740		6420	105	11700		10700	109	11400		10700	106
Sodium	24900		25000	100	49900		50000	100	50400		50000	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00095

Analyte	CCV 240-274788/73 04/14/2017 14:34											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	49600		50000	99								
Magnesium	49200		50000	98								
Potassium	49800		50000	100								
SiO2, Silica	11600		10700	108								
Sodium	50000		50000	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTTRCRIC_00046 Concentration Units: ug/L

CCV Source: MTTRCRIC_00046

Analyte	ICVL 240-274788/6 04/14/2017 08:53				CCVL 240-274788/95 04/14/2017 16:31							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5000		5000	100	4950	J	5000	99				
Magnesium	5110		5000	102	5020		5000	100				
Potassium	4890	J	5000	98	4900	J	5000	98				
SiO2, Silica	1010	J	1070	95	962	J	1070	90				
Sodium	4940	J	5000	99	4960	J	5000	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00189

Analyte	ICV 240-274564/7 04/12/2017 15:10				CCV 240-274564/32 04/12/2017 17:02							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.4		40.0	101	51.0		50.0	102				
Arsenic	41.6		40.0	104	51.0		50.0	102				
Barium	40.2		40.0	101	50.4		50.0	101				
Beryllium	39.5		40.0	99	50.5		50.0	101				
Cadmium	41.2		40.0	103	52.5		50.0	105				
Chromium	39.3		40.0	98	49.1		50.0	98				
Cobalt	40.0		40.0	100	50.5		50.0	101				
Copper	41.0		40.0	103	51.3		50.0	103				
Iron	9910		10000	99	12500		12500	100				
Lead	39.9		40.0	100	51.1		50.0	102				
Manganese	201		200	100	250		250	100				
Molybdenum	39.7		40.0	99	49.9		50.0	100				
Nickel	41.1		40.0	103	50.8		50.0	102				
Selenium	41.9		40.0	105	52.7		50.0	105				
Silver	39.6		40.0	99	50.4		50.0	101				
Thallium	39.5		40.0	99	50.5		50.0	101				
Vanadium	40.9		40.0	102	50.5		50.0	101				
Zinc	41.6		40.0	104	52.0		50.0	104				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00190

Analyte	ICV 240-274564/7 04/12/2017 15:10				CCV 240-274564/20 04/12/2017 16:13				CCV 240-274564/41 04/12/2017 17:40			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.4		40.0	101	53.7		50.0	107	48.7		50.0	97
Arsenic	41.6		40.0	104	52.1		50.0	104	50.2		50.0	100
Barium	40.2		40.0	101	51.0		50.0	102	49.7		50.0	99
Beryllium	39.5		40.0	99	50.6		50.0	101	48.8		50.0	98
Cadmium	41.2		40.0	103	52.6		50.0	105	51.7		50.0	103
Chromium	39.3		40.0	98	49.3		50.0	99	48.8		50.0	98
Cobalt	40.0		40.0	100	49.9		50.0	100	50.1		50.0	100
Copper	41.0		40.0	103	50.6		50.0	101	51.3		50.0	103
Iron	9910		10000	99	12300		12500	98	12400		12500	99
Lead	39.9		40.0	100	50.7		50.0	101	50.0		50.0	100
Manganese	201		200	100	248		250	99	249		250	100
Molybdenum	39.7		40.0	99	49.8		50.0	100	50.6		50.0	101
Nickel	41.1		40.0	103	50.1		50.0	100	50.3		50.0	101
Selenium	41.9		40.0	105	51.6		50.0	103	51.5		50.0	103
Silver	39.6		40.0	99	50.4		50.0	101	50.6		50.0	101
Thallium	39.5		40.0	99	50.3		50.0	101	49.8		50.0	100
Vanadium	40.9		40.0	102	48.8		50.0	98	49.3		50.0	99
Zinc	41.6		40.0	104	51.5		50.0	103	51.3		50.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-274564/9 04/12/2017 15:19				CCVL 240-274564/43 04/12/2017 17:49							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.18		2.00	109	2.10		2.00	105				
Arsenic	5.03		5.00	101	5.16		5.00	103				
Barium	4.95	J	5.00	99	4.95	J	5.00	99				
Beryllium	0.878	J	1.00	88	0.957	J	1.00	96				
Cadmium	1.03		1.00	103	1.11		1.00	111				
Chromium	1.90	J	2.00	95	1.86	J	2.00	93				
Cobalt	1.05		1.00	105	1.07		1.00	107				
Copper	2.21		2.00	110	2.27		2.00	113				
Iron	115		100	115	114		100	114				
Lead	1.04		1.00	104	1.08		1.00	108				
Manganese	5.16		5.00	103	5.14		5.00	103				
Molybdenum	4.99	J	5.00	100	4.88	J	5.00	98				
Nickel	2.07		2.00	103	2.16		2.00	108				
Selenium	5.42		5.00	108	5.28		5.00	106				
Silver	1.01		1.00	101	1.01		1.00	101				
Thallium	1.02		1.00	102	1.03		1.00	103				
Vanadium	4.87	J	5.00	97	4.81	J	5.00	96				
Zinc	22.4		20.0	112	22.2		20.0	111				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00191

Analyte	ICV 240-274908/7 04/14/2017 09:56				CCV 240-274908/37 04/14/2017 12:22				CCV 240-274908/43 04/14/2017 12:47			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.1		40.0	100	49.3		50.0	99	49.9		50.0	100
Arsenic	41.7		40.0	104	50.4		50.0	101	51.3		50.0	103
Barium	40.6		40.0	101	49.8		50.0	100	50.7		50.0	101
Beryllium	41.0		40.0	102	50.8		50.0	102	51.0		50.0	102
Cadmium	41.5		40.0	104	51.4		50.0	103	52.3		50.0	105
Chromium	42.2		40.0	106	51.0		50.0	102	51.9		50.0	104
Cobalt	41.0		40.0	102	50.0		50.0	100	50.0		50.0	100
Copper	42.0		40.0	105	50.2		50.0	100	50.0		50.0	100
Iron	10700		10000	107	13000		12500	104	13100		12500	104
Lead	42.6		40.0	106	52.0		50.0	104	51.2		50.0	102
Manganese	212		200	106	255		250	102	258		250	103
Molybdenum	39.6		40.0	99	50.3		50.0	101	49.7		50.0	99
Nickel	43.3		40.0	108	51.6		50.0	103	52.0		50.0	104
Selenium	42.7		40.0	107	50.7		50.0	101	51.6		50.0	103
Silver	40.9		40.0	102	50.2		50.0	100	50.2		50.0	100
Thallium	41.1		40.0	103	51.0		50.0	102	50.0		50.0	100
Vanadium	42.0		40.0	105	50.5		50.0	101	52.1		50.0	104
Zinc	43.6		40.0	109	52.6		50.0	105	53.4		50.0	107

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00191

Analyte	CCV 240-274908/55 04/14/2017 13:37				CCV 240-274908/57 04/14/2017 13:46				CCV 240-274908/65 04/14/2017 14:20			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.6		50.0	101	50.0		50.0	100	51.2		50.0	102
Arsenic	49.9		50.0	100	50.0		50.0	100	51.6		50.0	103
Barium	50.4		50.0	101	50.6		50.0	101	51.5		50.0	103
Beryllium	50.3		50.0	101	51.0		50.0	102	48.9		50.0	98
Cadmium	52.7		50.0	105	51.9		50.0	104	52.5		50.0	105
Chromium	51.5		50.0	103	51.5		50.0	103	52.2		50.0	104
Cobalt	48.4		50.0	97	48.7		50.0	97	49.4		50.0	99
Copper	48.5		50.0	97	49.4		50.0	99	50.4		50.0	101
Iron	13000		12500	104	13100		12500	104	13100		12500	105
Lead	52.1		50.0	104	51.4		50.0	103	51.3		50.0	103
Manganese	257		250	103	260		250	104	256		250	103
Molybdenum	49.9		50.0	100	49.8		50.0	100	50.3		50.0	101
Nickel	52.2		50.0	104	51.7		50.0	103	53.1		50.0	106
Selenium	49.2		50.0	98	50.6		50.0	101	51.6		50.0	103
Silver	50.7		50.0	101	50.8		50.0	102	50.9		50.0	102
Thallium	50.9		50.0	102	50.4		50.0	101	50.4		50.0	101
Vanadium	50.8		50.0	102	50.2		50.0	100	52.2		50.0	104
Zinc	53.6		50.0	107	54.0		50.0	108	54.4		50.0	109

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-274908/9 04/14/2017 10:04				CCVL 240-274908/45 04/14/2017 12:56				CCVL 240-274908/59 04/14/2017 13:54			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.92	J	2.00	96	2.06		2.00	103	1.98	J	2.00	99
Arsenic	5.07		5.00	101	5.13		5.00	103	5.02		5.00	100
Barium	4.85	J	5.00	97	4.71	J	5.00	94	4.90	J	5.00	98
Beryllium	0.905	J	1.00	91	1.10		1.00	110	0.859	J	1.00	86
Cadmium	1.03		1.00	103	1.07		1.00	107	1.08		1.00	108
Chromium	1.94	J	2.00	97	1.96	J	2.00	98	2.05		2.00	102
Cobalt	1.00		1.00	100	0.986	J	1.00	99	0.967	J	1.00	97
Copper	2.05		2.00	103	1.94	J	2.00	97	1.96	J	2.00	98
Iron	111		100	111	113		100	113	116		100	116
Lead	0.998	J	1.00	100	1.06		1.00	106	1.04		1.00	104
Manganese	5.03		5.00	101	5.10		5.00	102	5.27		5.00	105
Molybdenum	4.93	J	5.00	99	4.90	J	5.00	98	4.95	J	5.00	99
Nickel	2.09		2.00	105	1.63	J	2.00	81	1.64	J	2.00	82
Selenium	5.16		5.00	103	4.79	J	5.00	96	5.55		5.00	111
Silver	1.03		1.00	103	0.987	J	1.00	99	1.02		1.00	102
Thallium	0.985	J	1.00	99	0.991	J	1.00	99	1.01		1.00	101
Vanadium	4.91	J	5.00	98	5.03		5.00	101	5.09		5.00	102
Zinc	21.3		20.0	106	21.7		20.0	108	22.9		20.0	115

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	CCVL 240-274908/67 04/14/2017 14:29											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.23		2.00	112								
Arsenic	4.98	J	5.00	100								
Barium	4.75	J	5.00	95								
Beryllium	1.03		1.00	103								
Cadmium	1.10		1.00	110								
Chromium	2.03		2.00	101								
Cobalt	1.01		1.00	101								
Copper	2.04		2.00	102								
Iron	117		100	117								
Lead	1.19		1.00	119								
Manganese	5.13		5.00	103								
Molybdenum	4.73	J	5.00	95								
Nickel	1.72	J	2.00	86								
Selenium	5.47		5.00	109								
Silver	1.05		1.00	105								
Thallium	0.986	J	1.00	99								
Vanadium	5.01		5.00	100								
Zinc	22.7		20.0	114								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTHgICV_00001_00159 Concentration Units: ug/L

CCV Source: MTHGCALW_01477

Analyte	ICV 240-274352/7-A 04/12/2017 13:34				CCV 240-274352/10-A 04/12/2017 14:10				CCV 240-274352/10-A 04/12/2017 14:34			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.79		5.00	96	4.96		5.00	99	4.88		5.00	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTHgICV_00001_00159 Concentration Units: ug/L

CCV Source: MTHGCALW_01477

Analyte	CCV 240-274352/10-A 04/12/2017 14:40				CCV 240-274352/10-A 04/12/2017 15:03							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.82		5.00	96	4.81		5.00	96				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTHgICV_00001_00160 Concentration Units: ug/L

CCV Source: MTHGCALW_01480

Analyte	ICV 240-274724/7-A 04/14/2017 14:22				CCV 240-274724/10-A 04/14/2017 14:28				CCV 240-274724/10-A 04/14/2017 14:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.81		5.00	96	5.08		5.00	102	5.14		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICV Source: MTHgICV_00001_00160 Concentration Units: ug/L

CCV Source: MTHGCALW_01480

Analyte	CCV 240-274724/10-A 04/14/2017 15:16											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.15		5.00	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Method: 7470A Instrument ID: H2

Lab Sample ID: CRA 240-274352/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01477

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.247		124	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-274724/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01480

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.216		108	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-274788/5 04/14/2017 08:48		CCB 240-274788/50 04/14/2017 12:52		CCB 240-274788/62 04/14/2017 13:45		CCB 240-274788/74 04/14/2017 14:38	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Magnesium	5000	230	U	230	U	230	U	230	U
Potassium	5000	70	U	70	U	70	U	70	U
SiO2, Silica	1100	140	U	140	U	140	U	140	U
Sodium	5000	330	U	330	U	330	U	330	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-274564/8 04/12/2017 15:15		CCB 240-274564/21 04/12/2017 16:17		CCB 240-274564/33 04/12/2017 17:07		CCB 240-274564/42 04/12/2017 17:45	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	1.19	J	1.44	J	1.50	J	0.595	J
Arsenic	5.0	0.49	U	0.49	U	0.49	U	0.49	U
Barium	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Beryllium	1.0	0.053	U	0.053	U	0.0630	J	0.053	U
Cadmium	1.0	0.061	U	0.061	U	0.0720	J	0.061	U
Chromium	2.0	0.60	U	0.60	U	0.60	U	0.60	U
Cobalt	1.0	0.021	U	0.021	U	0.0270	J	0.021	U
Copper	2.0	0.75	U	0.75	U	0.75	U	0.75	U
Iron	100	16	U	16.2	J	16	U	16	U
Lead	1.0	0.11	U	0.11	U	0.117	J	0.11	U
Manganese	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Molybdenum	10	0.593	J	0.624	J	0.619	J	0.622	J
Nickel	2.0	0.23	U	0.23	U	0.23	U	0.23	U
Selenium	5.0	0.25	U	0.25	U	0.25	U	0.25	U
Silver	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Thallium	1.0	0.074	U	0.074	U	0.074	U	0.074	U
Vanadium	5.0	0.23	U	0.23	U	0.23	U	0.23	U
Zinc	20	7.3	U	7.3	U	7.3	U	7.3	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-274908/8 04/14/2017 10:00		CCB 240-274908/38 04/14/2017 12:26		CCB 240-274908/44 04/14/2017 12:51		CCB 240-274908/56 04/14/2017 13:42	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.309	J	0.287	J	0.234	J	0.276	J
Arsenic	5.0	0.49	U	0.49	U	0.49	U	0.49	U
Barium	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Beryllium	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Cadmium	1.0	0.061	U	0.061	U	0.061	U	0.061	U
Chromium	2.0	0.60	U	0.60	U	0.60	U	0.60	U
Cobalt	1.0	0.021	U	0.021	U	0.021	U	0.021	U
Copper	2.0	0.75	U	0.75	U	0.75	U	0.75	U
Iron	100	16	U	16	U	16	U	16	U
Lead	1.0	0.11	U	0.11	U	0.11	U	0.11	U
Manganese	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Molybdenum	10	0.23	U	0.237	J	0.236	J	0.23	U
Nickel	2.0	0.23	U	0.23	U	0.23	U	0.23	U
Selenium	5.0	0.25	U	0.25	U	0.25	U	0.25	U
Silver	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Thallium	1.0	0.074	U	0.074	U	0.074	U	0.074	U
Vanadium	5.0	0.23	U	0.23	U	0.23	U	0.23	U
Zinc	20	7.3	U	7.3	U	7.3	U	7.3	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-274908/58 04/14/2017 13:50		CCB 240-274908/66 04/14/2017 14:24					
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.285	J	0.646	J				
Arsenic	5.0	0.49	U	0.49	U				
Barium	5.0	1.1	U	1.1	U				
Beryllium	1.0	0.053	U	0.134	J				
Cadmium	1.0	0.061	U	0.0800	J				
Chromium	2.0	0.60	U	0.60	U				
Cobalt	1.0	0.021	U	0.0250	J				
Copper	2.0	0.75	U	0.75	U				
Iron	100	16	U	16	U				
Lead	1.0	0.11	U	0.287	J				
Manganese	5.0	1.1	U	1.1	U				
Molybdenum	10	0.23	U	0.265	J				
Nickel	2.0	0.23	U	0.23	U				
Selenium	5.0	0.25	U	0.25	U				
Silver	1.0	0.020	U	0.0240	J				
Thallium	1.0	0.074	U	0.074	U				
Vanadium	5.0	0.23	U	0.23	U				
Zinc	20	7.3	U	7.3	U				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-274352/8-A 04/12/2017 13:36		CCB 240-274352/11-A 04/12/2017 14:11		CCB 240-274352/11-A 04/12/2017 14:36		CCB 240-274352/11-A 04/12/2017 14:43	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-274352/11-A 04/12/2017 15:05							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-274724/8-A 04/14/2017 14:24		CCB 240-274724/11-A 04/14/2017 14:30		CCB 240-274724/11-A 04/14/2017 14:55		CCB 240-274724/11-A 04/14/2017 15:19	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-274588/1-A

Instrument Code: I12 Batch No.: 274788

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	710	U		6010C
7440-09-7	Potassium	70	U		6010C
7439-95-4	Magnesium	230	U		6010C
7440-23-5	Sodium	330	U		6010C
14808-60-7	SiO2, Silica	140	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-274206/1-A

Instrument Code: I10 Batch No.: 274564

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.657	J		6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	1.08	J		6020A
7440-41-7	Beryllium	0.40	U		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.26	U		6020A
7440-50-8	Copper	0.719	J		6020A
7439-89-6	Iron	18.9	J		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	0.326	J		6020A
7440-02-0	Nickel	0.770	J		6020A
7439-92-1	Lead	0.16	U		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	6.2	U		6020A
7440-22-4	Silver	0.030	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-274588/1-A

Instrument Code: I10 Batch No.: 274908

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.383	J		6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	1.05	J		6020A
7440-41-7	Beryllium	0.40	U		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.26	U		6020A
7440-50-8	Copper	0.556	J		6020A
7439-89-6	Iron	14.9	J		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	0.459	J		6020A
7440-02-0	Nickel	0.28	U		6020A
7439-92-1	Lead	0.16	U		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	6.2	U		6020A
7440-22-4	Silver	0.030	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-274210/1-A

Instrument Code: H2 Batch No.: 274464

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-274592/1-A

Instrument Code: H3 Batch No.: 274863

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICSA 240-274788/8 Instrument ID: I12

Lab File ID: I12041417A.asc ICS Source: MTTRICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**481380**	**96**
Magnesium	**500000**	**518180**	**104**
Potassium		**47.7**	
Sodium		**82.6**	
Aluminum	*500000*	*516070*	*103*
Antimony		*4.66*	
Arsenic		*4.17*	
Barium		*0.296*	
Beryllium		*0.354*	
Boron		*1.94*	
Cadmium		*1.11*	
Chromium		*2.61*	
Cobalt		*-4.53*	
Copper		*-2.21*	
Iron	*200000*	*192650*	*96*
Lead		*4.11*	
Lithium		*6.08*	
Manganese		*1.98*	
Molybdenum		*-0.872*	
Nickel		*-4.72*	
Selenium		*6.00*	
Silicon		*-33.5*	
Silver		*-3.18*	
Strontium		*6.77*	
Thallium		*9.13*	
Tin		*0.0373*	
Titanium		*-1.56*	
Vanadium		*-1.76*	
Zinc		*0.469*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICSAB 240-274788/9 Instrument ID: I12

Lab File ID: I12041417A.asc ICS Source: MTICPICSABW_00013

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**475320**	**95**
Magnesium	**500000**	**516680**	**103**
Potassium	**10000**	**10485**	**105**
Sodium	**10000**	**10495**	**105**
Aluminum	*500000*	*519760*	*104*
Antimony	*1000*	*1032*	*103*
Arsenic	*1000*	*1030*	*103*
Barium	*500*	*497*	*99*
Beryllium	*500*	*474*	*95*
Boron	*500*	*526*	*105*
Cadmium	*1000*	*1058*	*106*
Chromium	*500*	*486*	*97*
Cobalt	*500*	*480*	*96*
Copper	*500*	*525*	*105*
Iron	*200000*	*191210*	*96*
Lead	*1000*	*960*	*96*
Lithium	*500*	*533*	*107*
Manganese	*500*	*491*	*98*
Molybdenum	*1000*	*974*	*97*
Nickel	*1000*	*955*	*95*
Selenium	*1000*	*1022*	*102*
Silicon	*10000*	*10121*	*101*
Silver	*1000*	*1056*	*106*
Strontium	*1500*	*1422*	*95*
Thallium	*1000*	*971*	*97*
Tin	*500*	*495*	*99*
Titanium	*500*	*506*	*101*
Vanadium	*500*	*484*	*97*
Zinc	*1000*	*948*	*95*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICSA 240-274564/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.261**	
Arsenic		**0.0520**	
Barium		**0.0530**	
Beryllium		**0.0010**	
Cadmium		**0.0740**	
Chromium		**0.687**	
Cobalt		**0.0060**	
Copper		**0.353**	
Iron	**50000**	**48243**	**96**
Lead		**0.125**	
Manganese		**0.142**	
Molybdenum	**1000**	**994**	**99**
Nickel		**0.0550**	
Selenium		**0.159**	
Silver		**0.0190**	
Thallium		**0.0080**	
Vanadium		**-0.0360**	
Zinc		**0.327**	
Aluminum	*50000*	*49739*	*99*
Boron		*-0.0780*	
Calcium	*50000*	*49246*	*98*
Lithium		*0.121*	
Magnesium	*50000*	*49122*	*98*
Potassium	*50000*	*48890*	*98*
Sodium	*50000*	*49219*	*98*
Strontium		*0.320*	
Tin		*0.683*	
Titanium	*1000*	*1003*	*100*
Tungsten		*0.728*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICSAB 240-274564/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00075

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**99.5**	**99**
Arsenic	**100**	**100**	**100**
Barium	**100**	**99.4**	**99**
Beryllium	**100**	**98.8**	**99**
Cadmium	**100**	**100**	**100**
Chromium	**100**	**98.5**	**99**
Cobalt	**100**	**101**	**101**
Copper	**100**	**102**	**102**
Iron	**50000**	**50192**	**100**
Lead	**100**	**103**	**103**
Manganese	**100**	**102**	**102**
Molybdenum	**1100**	**1121**	**102**
Nickel	**100**	**102**	**102**
Selenium	**100**	**100**	**100**
Silver	**100**	**92.5**	**93**
Thallium	**100**	**102**	**102**
Vanadium	**100**	**101**	**101**
Zinc	**100**	**103**	**103**
Aluminum	*50000*	*50505*	*101*
Boron	*100*	*102*	*102*
Calcium	*50000*	*50523*	*101*
Lithium	*100*	*103*	*103*
Magnesium	*50000*	*50530*	*101*
Potassium	*50000*	*49543*	*99*
Sodium	*50000*	*50485*	*101*
Strontium	*100*	*98.9*	*99*
Tin	*100*	*94.8*	*95*
Titanium	*1100*	*1131*	*103*
Tungsten	*100*	*105*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICSA 240-274908/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.138**	
Arsenic		**0.0840**	
Barium		**0.0790**	
Beryllium		**0.0110**	
Cadmium		**0.104**	
Chromium		**0.741**	
Cobalt		**0.0050**	
Copper		**0.387**	
Iron	**50000**	**53660**	**107**
Lead		**0.0850**	
Manganese		**0.199**	
Molybdenum	**1000**	**1079**	**108**
Nickel		**-0.0150**	
Selenium		**0.0560**	
Silver		**0.0200**	
Thallium		**-0.0050**	
Vanadium		**0.0590**	
Zinc		**0.571**	
Aluminum	*50000*	*55552*	*111*
Boron		*0.647*	
Calcium	*50000*	*53914*	*108*
Lithium		*-0.0220*	
Magnesium	*50000*	*53967*	*108*
Potassium	*50000*	*53936*	*108*
Sodium	*50000*	*54762*	*110*
Strontium		*0.329*	
Tin		*0.224*	
Titanium	*1000*	*1057*	*106*
Tungsten		*0.219*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Lab Sample ID: ICSAB 240-274908/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00075

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**100**	**100**
Arsenic	**100**	**103**	**103**
Barium	**100**	**101**	**101**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**101**	**101**
Chromium	**100**	**105**	**105**
Cobalt	**100**	**103**	**103**
Copper	**100**	**102**	**102**
Iron	**50000**	**52384**	**105**
Lead	**100**	**104**	**104**
Manganese	**100**	**106**	**106**
Molybdenum	**1100**	**1157**	**105**
Nickel	**100**	**105**	**105**
Selenium	**100**	**102**	**102**
Silver	**100**	**94.9**	**95**
Thallium	**100**	**104**	**104**
Vanadium	**100**	**105**	**105**
Zinc	**100**	**106**	**106**
Aluminum	*50000*	*52786*	*106*
Boron	*100*	*101*	*101*
Calcium	*50000*	*52212*	*104*
Lithium	*100*	*103*	*103*
Magnesium	*50000*	*52146*	*104*
Potassium	*50000*	*52474*	*105*
Sodium	*50000*	*52286*	*105*
Strontium	*100*	*101*	*101*
Tin	*100*	*97.7*	*98*
Titanium	*1100*	*1124*	*102*
Tungsten	*100*	*102*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW12A-041117 MS
Lab ID: 240-77967-8 MS
Lab Name: TestAmerica Canton
Job No.: 240-77879-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	89.5		4.9		100	85	75-125		6020A
Arsenic	1020		12		1000	101	75-125		6020A
Barium	1350		280		1000	108	75-125		6020A
Beryllium	1100		7.0		1000	109	75-125		6020A
Cadmium	1040		0.35	J	1000	104	75-125		6020A
Cobalt	1050		33		1000	102	75-125		6020A
Chromium	1150		82		1000	107	75-125		6020A
Copper	1060		52		1000	101	75-125		6020A
Iron	197000		180000		10000	194	75-125	4	6020A
Molybdenum	99.5		2.6	J	100	97	75-125		6020A
Manganese	5400		4200		1000	122	75-125	4	6020A
Nickel	1090		80		1000	101	75-125		6020A
Lead	1080		50		1000	103	75-125		6020A
Selenium	955		5.2		1000	95	75-125		6020A
Thallium	253		0.36	J	250	101	75-125		6020A
Vanadium	1200		120		1000	108	75-125		6020A
Zinc	1360		360		1000	100	75-125		6020A
Silver	101		0.28	J	100	101	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77895-O-1-D MS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	98.4		1.7	J	100	97	75-125		6020A
Arsenic	989		0.51	J	1000	99	75-125		6020A
Barium	1040		41		1000	100	75-125		6020A
Beryllium	1040		0.40	U	1000	104	75-125		6020A
Cadmium	1050		0.31	U	1000	105	75-125		6020A
Cobalt	1030		3.0		1000	102	75-125		6020A
Chromium	959		0.38	J	1000	96	75-125		6020A
Copper	1060		0.69	J	1000	106	75-125		6020A
Iron	9920		38	J	10000	99	75-125		6020A
Molybdenum	102		0.68	J	100	102	75-125		6020A
Manganese	1240		230		1000	101	75-125		6020A
Nickel	1100		3.3		1000	110	75-125		6020A
Lead	1010		0.37	J	1000	101	75-125		6020A
Selenium	1020		1.1	J	1000	102	75-125		6020A
Thallium	252		0.28	U	250	101	75-125		6020A
Vanadium	1000		0.54	U	1000	100	75-125		6020A
Zinc	1030		6.2	U	1000	103	75-125		6020A
Silver	102		0.036	J	100	102	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-77895-O-1-G MS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.06		0.13	U	1.00	106	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-77958-F-1-C MS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	156000		100000		50000	109	75-125		6010C
Potassium	54100		1600	J	50000	105	75-125		6010C
Magnesium	63200		10000		50000	105	75-125		6010C
Sodium	72500		20000		50000	105	75-125		6010C
SiO2, Silica	18300		15000		2140	149	75-125	4	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-77968-G-1-E MS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.03		0.13	U	1.00	103	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW12A-041117 MSD
Lab ID: 240-77967-8 MSD
Lab Name: TestAmerica Canton
Job No.: 240-77879-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	87.9		100	83	75-125	2	20		6020A
Arsenic	1020		1000	101	75-125	0	20		6020A
Barium	1380		1000	110	75-125	2	20		6020A
Beryllium	978		1000	97	75-125	12	20		6020A
Cadmium	1040		1000	104	75-125	0	20		6020A
Cobalt	1090		1000	105	75-125	3	20		6020A
Chromium	1160		1000	108	75-125	1	20		6020A
Copper	1100		1000	105	75-125	4	20		6020A
Iron	199000		10000	218	75-125	1	20	4	6020A
Molybdenum	104		100	101	75-125	4	20		6020A
Manganese	5440		1000	126	75-125	1	20	4	6020A
Nickel	1110		1000	103	75-125	1	20		6020A
Lead	1120		1000	107	75-125	3	20		6020A
Selenium	948		1000	94	75-125	1	20		6020A
Thallium	260		250	104	75-125	3	20		6020A
Vanadium	1220		1000	110	75-125	2	20		6020A
Zinc	1380		1000	102	75-125	1	20		6020A
Silver	105		100	105	75-125	4	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-77895-O-1-E MSD

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	96.8		100	95	75-125	2	20		6020A
Arsenic	1000		1000	100	75-125	1	20		6020A
Barium	1050		1000	101	75-125	1	20		6020A
Beryllium	1040		1000	104	75-125	1	20		6020A
Cadmium	1070		1000	107	75-125	1	20		6020A
Cobalt	1040		1000	103	75-125	1	20		6020A
Chromium	961		1000	96	75-125	0	20		6020A
Copper	1070		1000	107	75-125	1	20		6020A
Iron	10000		10000	100	75-125	1	20		6020A
Molybdenum	103		100	103	75-125	1	20		6020A
Manganese	1270		1000	103	75-125	2	20		6020A
Nickel	1110		1000	111	75-125	1	20		6020A
Lead	1020		1000	102	75-125	2	20		6020A
Selenium	1020		1000	102	75-125	0	20		6020A
Thallium	258		250	103	75-125	3	20		6020A
Vanadium	1010		1000	101	75-125	1	20		6020A
Zinc	1040		1000	104	75-125	1	20		6020A
Silver	103		100	103	75-125	1	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-77895-O-1-H MSD

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.986		1.00	99	80-120	7	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-77958-F-1-D MSD

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	152000		50000	101	75-125	3	20		6010C
Potassium	53000		50000	103	75-125	2	20		6010C
Magnesium	61600		50000	102	75-125	3	20		6010C
Sodium	71300		50000	103	75-125	2	20		6010C
SiO2, Silica	17900		2140	130	75-125	2	20	4	6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-77968-G-1-F MSD

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.968		1.00	97	80-120	6	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-274588/2-A

Lab Name: TestAmerica Canton Job No.: 240-77879-1

Sample Matrix: Water LCS Source: MTICP2A_00070

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	50500		101	80	120		6010C
Potassium	50000	50500		101	80	120		6010C
Magnesium	50000	50700		101	80	120		6010C
Sodium	50000	50800		102	80	120		6010C
SiO2, Silica	2140	2310		108	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-274206/3-A

Lab Name: TestAmerica Canton Job No.: 240-77879-1

Sample Matrix: Water LCS Source: MTICPMSB_00030

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	96.5		97	80	120		6020A
Arsenic	1000	1010		101	80	120		6020A
Barium	1000	1000		100	80	120		6020A
Beryllium	1000	1060		106	80	120		6020A
Cadmium	1000	1060		106	80	120		6020A
Cobalt	1000	1050		105	80	120		6020A
Chromium	1000	975		97	80	120		6020A
Copper	1000	1070		107	80	120		6020A
Iron	10000	10000		100	80	120		6020A
Molybdenum	100	102		102	80	120		6020A
Manganese	1000	1030		103	80	120		6020A
Nickel	1000	1130		113	80	120		6020A
Lead	1000	1030		103	80	120		6020A
Selenium	1000	1060		106	80	120		6020A
Thallium	250	259		103	80	120		6020A
Vanadium	1000	1010		101	80	120		6020A
Zinc	1000	1040		104	80	120		6020A
Silver	100	103		103	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-274588/3-A

Lab Name: TestAmerica Canton Job No.: 240-77879-1

Sample Matrix: Water LCS Source: MTICPMSB_00030

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	104		104	80	120		6020A
Arsenic	1000	1080		108	80	120		6020A
Barium	1000	1050		105	80	120		6020A
Beryllium	1000	1090		109	80	120		6020A
Cadmium	1000	1110		111	80	120		6020A
Cobalt	1000	1050		105	80	120		6020A
Chromium	1000	1120		112	80	120		6020A
Copper	1000	1080		108	80	120		6020A
Iron	10000	11000		110	80	120		6020A
Molybdenum	100	100		100	80	120		6020A
Manganese	1000	1120		112	80	120		6020A
Nickel	1000	1130		113	80	120		6020A
Lead	1000	1090		109	80	120		6020A
Selenium	1000	1090		109	80	120		6020A
Thallium	250	270		108	80	120		6020A
Vanadium	1000	1130		113	80	120		6020A
Zinc	1000	1120		112	80	120		6020A
Silver	100	106		106	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-274210/2-A

Lab Name: TestAmerica Canton Job No.: 240-77879-1

Sample Matrix: Water LCS Source: MTHGCALW_01476

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.95		99	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-274592/2-A

Lab Name: TestAmerica Canton Job No.: 240-77879-1

Sample Matrix: Water LCS Source: MTHGCALW_01479

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.87		97	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-77958-F-1-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-77879-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	100000		105000		2.7		6010C
Potassium	1600	J	1840	J	NC		6010C
Magnesium	10000		11100	J	NC		6010C
Sodium	20000		20000	J	0.29		6010C
SiO2, Silica	15000		15000		0.45		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-77967-8

SDG No:

Lab Name: TestAmerica Canton Job No: 240-77879-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	4.9		4.97	J	NC		6020A
Arsenic	12		11.7	J	NC		6020A
Barium	280		289		NC		6020A
Beryllium	7.0		6.79		NC		6020A
Cadmium	0.35	J	1.6	U	NC		6020A
Cobalt	33		32.7		NC		6020A
Chromium	82		86.9		NC		6020A
Copper	52		51.7		NC		6020A
Iron	180000		177000		0.54		6020A
Molybdenum	2.6	J	2.6	U	NC		6020A
Manganese	4200		4130		1.3		6020A
Nickel	80		79.1		NC		6020A
Lead	50		49.6		NC		6020A
Selenium	5.2		4.31	J	NC		6020A
Thallium	0.36	J	1.4	U	NC		6020A
Vanadium	120		122		NC		6020A
Zinc	360		375		NC		6020A
Silver	0.28	J	0.285	J	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-77895-O-1-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-77879-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	1.7	J	1.92	J	NC		6020A
Arsenic	0.51	J	1.8	U	NC		6020A
Barium	41		41.9		NC		6020A
Beryllium	0.40	U	2.0	U	NC		6020A
Cadmium	0.31	U	1.6	U	NC		6020A
Cobalt	3.0		2.99	J	NC		6020A
Chromium	0.38	J	1.3	U	NC		6020A
Copper	0.69	J	1.8	U	NC		6020A
Iron	38	J	29.4	J	NC		6020A
Molybdenum	0.68	J	2.6	U	NC		6020A
Manganese	230		243		NC		6020A
Nickel	3.3		3.14	J	NC		6020A
Lead	0.37	J	0.80	U	NC		6020A
Selenium	1.1	J	2.4	U	NC		6020A
Thallium	0.28	U	1.4	U	NC		6020A
Vanadium	0.54	U	2.7	U	NC		6020A
Zinc	6.2	U	31	U	NC		6020A
Silver	0.036	J	0.15	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	710
Magnesium	279.078	5000	230
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	710
Magnesium	279.078	5000	230
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 12/13/2016 11:36

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.27
Arsenic	75.00	5	0.35
Barium	137.00	5	0.52
Beryllium	9.00	1	0.4
Cadmium	111.00	1	0.31
Chromium	52.00	2	0.26
Cobalt	59.00	1	0.13
Copper	65.00	2	0.36
Iron	56.00	100	5.3
Lead	208.00	1	0.16
Manganese	55.00	5	0.25
Molybdenum	95.00	10	0.51
Nickel	60.00	2	0.28
Selenium	78.00	5	0.48
Silver	107.00	1	0.03
Thallium	205.00	1	0.28
Vanadium	51.00	5	0.54
Zinc	66.00	20	6.22

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 09/15/2014 17:03

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.16
Arsenic	75.00	5	0.49
Barium	137.00	5	1.1
Beryllium	9.00	1	0.053
Cadmium	111.00	1	0.061
Chromium	52.00	2	0.6
Cobalt	59.00	1	0.021
Copper	65.00	2	0.75
Iron	56.00	100	16
Lead	208.00	1	0.11
Manganese	55.00	5	1.1
Molybdenum	95.00	10	0.23
Nickel	60.00	2	0.23
Selenium	78.00	5	0.25
Silver	107.00	1	0.02
Thallium	205.00	1	0.074
Vanadium	51.00	5	0.23
Zinc	66.00	20	7.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: H2

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 01/20/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.030656				0.066045	
Antimony		-0.000064			-0.000244			-0.000054						0.002941	
Arsenic		0.000016			-0.000333	0.000782			-0.000355	0.002123					
Beryllium														0.000282	
Cadmium			0.01262					0.000002							
Chromium									0.000453						
Cobalt													0.001895		
Copper				0.000018	0.000361			-0.000017					-0.003237		
Lead		-0.000086					0.000101	0.000044			0.000131	0.00004			
Lithium				0.000011											
Nickel					0.000518			0.000081							
Selenium		-0.00002							0.000338						
Thallium		0.000022			0.002708			-0.000025	0.000571					0.001707	
Vanadium								0.000067							
Zinc						-0.001092									

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-77879-1

SDG No.:

Instrument ID: I12 Date: 01/24/2017 12:29

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		800000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-77879-1

SDG No.:

Instrument ID: I10 Date: 10/14/2016 11:32

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Arsenic		10000	6020A
Barium		10000	6020A
Beryllium		2000	6020A
Cadmium		4000	6020A
Cobalt		5000	6020A
Chromium		10000	6020A
Copper		10000	6020A
Iron		200000	6020A
Molybdenum		2000	6020A
Manganese		10000	6020A
Nickel		10000	6020A
Lead		4000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Vanadium		10000	6020A
Zinc		10000	6020A
Silver		300	6020A

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-77879-1

SDG No.:

Instrument ID: H2 Date: 05/15/2016 09:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Mercury		10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-274588/1-A	04/13/2017 16:00	274588		50	50
LCS 240-274588/2-A	04/13/2017 16:00	274588		50	50
240-77958-F-1-C MS	04/13/2017 16:00	274588		50	50
240-77958-F-1-D MSD	04/13/2017 16:00	274588		50	50
240-77967-8	04/13/2017 16:00	274588		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-274206/1-A	04/11/2017 14:00	274206		50	50
LCS 240-274206/3-A	04/11/2017 14:00	274206		50	50
240-77895-O-1-D MS	04/11/2017 14:00	274206		50	50
240-77895-O-1-E MSD	04/11/2017 14:00	274206		50	50
240-77879-2	04/11/2017 14:00	274206		50	50
240-77879-3	04/11/2017 14:00	274206		50	50
240-77879-8	04/11/2017 14:00	274206		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-274588/1-A	04/13/2017 16:00	274588		50	50
LCS 240-274588/3-A	04/13/2017 16:00	274588		50	50
240-77967-6	04/13/2017 16:00	274588		50	50
240-77967-8	04/13/2017 16:00	274588		50	50
240-77967-8 MS	04/13/2017 16:00	274588		50	50
240-77967-8 MSD	04/13/2017 16:00	274588		50	50
240-77967-9	04/13/2017 16:00	274588		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-274210/1-A	04/11/2017 14:00	274210		50	50
LCS 240-274210/2-A	04/11/2017 14:00	274210		50	50
240-77895-O-1-G MS	04/11/2017 14:00	274210		50	50
240-77895-O-1-H MSD	04/11/2017 14:00	274210		50	50
240-77879-2	04/11/2017 14:00	274210		50	50
240-77879-3	04/11/2017 14:00	274210		50	50
240-77879-8	04/11/2017 14:00	274210		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-274592/1-A	04/13/2017 14:00	274592		50	50
LCS 240-274592/2-A	04/13/2017 14:00	274592		50	50
240-77968-G-1-E MS	04/13/2017 14:00	274592		50	50
240-77968-G-1-F MSD	04/13/2017 14:00	274592		50	50
240-77967-6	04/13/2017 14:00	274592		50	50
240-77967-8	04/13/2017 14:00	274592		50	50
240-77967-9	04/13/2017 14:00	274592		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/14/2017 08:30 End Date: 04/15/2017 02:55

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na	SiO2																					
ICIS 240-274788/1	1		08:30	X	X	X	X	X																					
CALSTD 240-274788/2 IC			08:35	X	X	X	X	X																					
CALSTD 240-274788/3 IC			08:40	X	X	X	X	X																					
ICV 240-274788/4	1		08:44	X	X	X	X	X																					
ICB 240-274788/5	1		08:48	X	X	X	X	X																					
ICVL 240-274788/6	1		08:53	X	X	X	X	X																					
ZZZZZZ			08:58																										
ICSA 240-274788/8	1		09:02	X	X	X	X																						
ICSAB 240-274788/9	1		09:07	X	X	X	X																						
CCV 240-274788/10			09:11																										
CCB 240-274788/11			09:15																										
ZZZZZZ			09:20																										
ZZZZZZ			09:24																										
ZZZZZZ			09:29																										
ZZZZZZ			09:33																										
ZZZZZZ			09:38																										
ZZZZZZ			09:42																										
CCV 240-274788/18			09:47																										
CCB 240-274788/19			09:51																										
ZZZZZZ			10:04																										
ZZZZZZ			10:08																										
ZZZZZZ			10:12																										
ZZZZZZ			10:17																										
ZZZZZZ			10:21																										
ZZZZZZ			10:26																										
ZZZZZZ			10:30																										
ZZZZZZ			10:34																										
ZZZZZZ			10:39																										
ZZZZZZ			10:43																										
CCV 240-274788/30			10:48																										
CCB 240-274788/31			10:52																										
ZZZZZZ			10:57																										
ZZZZZZ			11:01																										
ZZZZZZ			11:06																										
ZZZZZZ			11:10																										
ZZZZZZ			11:15																										
CCV 240-274788/37			11:20																										
CCB 240-274788/38			11:24																										
ZZZZZZ			12:04																										
ZZZZZZ			12:08																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/14/2017 08:30 End Date: 04/15/2017 02:55

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			12:13																											
ZZZZZZ			12:17																											
ZZZZZZ			12:21																											
ZZZZZZ			12:25																											
ZZZZZZ			12:30																											
ZZZZZZ			12:34																											
ZZZZZZ			12:39																											
ZZZZZZ			12:43																											
CCV 240-274788/49	1		12:48	X	X	X	X	X																						
CCB 240-274788/50	1		12:52	X	X	X	X	X																						
ZZZZZZ			12:57																											
ZZZZZZ			13:01																											
ZZZZZZ			13:06																											
ZZZZZZ			13:10																											
ZZZZZZ			13:15																											
ZZZZZZ			13:19																											
ZZZZZZ			13:24																											
MB 240-274588/1-A	1	R	13:28	X	X	X	X	X																						
LCS 240-274588/2-A	1	R	13:32	X	X	X	X	X																						
ZZZZZZ			13:37																											
CCV 240-274788/61	1		13:41	X	X	X	X	X																						
CCB 240-274788/62	1		13:45	X	X	X	X	X																						
240-77958-F-1-A SD ^5	5	D	13:50	X	X	X	X	X																						
240-77958-F-1-C MS	1	D	13:54	X	X	X	X	X																						
240-77958-F-1-D MSD	1	D	13:58	X	X	X	X	X																						
ZZZZZZ			14:03																											
240-77967-8	1	R	14:07	X	X	X	X	X																						
ZZZZZZ			14:11																											
ZZZZZZ			14:16																											
ZZZZZZ			14:20																											
ZZZZZZ			14:25																											
ZZZZZZ			14:29																											
CCV 240-274788/73	1		14:34	X	X	X	X	X																						
CCB 240-274788/74	1		14:38	X	X	X	X	X																						
ZZZZZZ			14:42																											
ZZZZZZ			14:47																											
ZZZZZZ			14:52																											
ZZZZZZ			14:56																											
ZZZZZZ			15:01																											
CCV 240-274788/80			15:05																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/14/2017 08:30 End Date: 04/15/2017 02:55

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na	SiO2																					
CCB 240-274788/81			15:09																										
ZZZZZZ			15:14																										
ZZZZZZ			15:18																										
ZZZZZZ			15:32																										
CCV 240-274788/85			15:43																										
CCB 240-274788/86			15:47																										
ZZZZZZ			15:54																										
CCV 240-274788/88			15:58																										
CCB 240-274788/89			16:03																										
ICSA 240-274788/90			16:07																										
ICSAB 240-274788/91			16:12																										
CCV 240-274788/92			16:16																										
CCB 240-274788/93			16:20																										
ZZZZZZ			16:25																										
CCVL 240-274788/95	1		16:31	X	X	X	X	X																					
ZZZZZZ			16:35																										
CCV 240-274788/97			16:40																										
CCB 240-274788/98			16:44																										
ZZZZZZ			16:49																										
ZZZZZZ			16:53																										
ZZZZZZ			16:58																										
ZZZZZZ			17:03																										
ZZZZZZ			17:07																										
ZZZZZZ			17:12																										
ZZZZZZ			17:16																										
ZZZZZZ			17:21																										
ZZZZZZ			17:25																										
ZZZZZZ			17:29																										
CCV 240-274788/109			17:34																										
CCB 240-274788/110			17:38																										
ZZZZZZ			17:42																										
ZZZZZZ			17:47																										
ZZZZZZ			17:51																										
ZZZZZZ			17:56																										
ZZZZZZ			18:00																										
ZZZZZZ			18:05																										
ZZZZZZ			18:10																										
ZZZZZZ			18:14																										
ZZZZZZ			18:19																										
ZZZZZZ			18:23																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/14/2017 08:30 End Date: 04/15/2017 02:55

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
CCV 240-274788/121			18:28																											
CCB 240-274788/122			18:32																											
ZZZZZZ			18:37																											
ZZZZZZ			18:41																											
ZZZZZZ			18:46																											
ZZZZZZ			18:50																											
ZZZZZZ			18:55																											
ZZZZZZ			18:59																											
ZZZZZZ			19:04																											
ZZZZZZ			19:08																											
ZZZZZZ			19:13																											
ZZZZZZ			19:17																											
CCV 240-274788/133			19:22																											
CCB 240-274788/134			19:26																											
ZZZZZZ			19:30																											
ZZZZZZ			19:35																											
ZZZZZZ			19:39																											
ZZZZZZ			19:44																											
ZZZZZZ			19:48																											
ZZZZZZ			19:53																											
ZZZZZZ			19:57																											
ZZZZZZ			20:02																											
ZZZZZZ			20:06																											
ZZZZZZ			20:11																											
CCV 240-274788/145			20:15																											
CCB 240-274788/146			20:20																											
ZZZZZZ			20:24																											
ZZZZZZ			20:29																											
ZZZZZZ			20:34																											
ZZZZZZ			20:38																											
ZZZZZZ			20:43																											
ZZZZZZ			20:47																											
ZZZZZZ			20:52																											
ZZZZZZ			20:56																											
ZZZZZZ			21:01																											
ZZZZZZ			21:05																											
CCV 240-274788/157			21:10																											
CCB 240-274788/158			21:14																											
ZZZZZZ			21:18																											
ZZZZZZ			21:23																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/14/2017 08:30 End Date: 04/15/2017 02:55

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			21:28																											
ZZZZZZ			21:32																											
ZZZZZZ			21:37																											
ZZZZZZ			21:41																											
ZZZZZZ			21:46																											
ZZZZZZ			21:51																											
ZZZZZZ			21:55																											
ZZZZZZ			21:59																											
CCV 240-274788/169			22:04																											
CCB 240-274788/170			22:08																											
ZZZZZZ			22:13																											
ZZZZZZ			22:17																											
ZZZZZZ			22:22																											
ZZZZZZ			22:26																											
ZZZZZZ			22:31																											
ZZZZZZ			22:35																											
ZZZZZZ			22:40																											
ZZZZZZ			22:44																											
ZZZZZZ			22:49																											
ZZZZZZ			22:53																											
CCV 240-274788/181			22:58																											
CCB 240-274788/182			23:02																											
ZZZZZZ			23:06																											
ZZZZZZ			23:11																											
ZZZZZZ			23:15																											
ZZZZZZ			23:19																											
ZZZZZZ			23:24																											
ZZZZZZ			23:28																											
ZZZZZZ			23:33																											
ZZZZZZ			23:38																											
ZZZZZZ			23:42																											
ZZZZZZ			23:47																											
CCV 240-274788/193			23:51																											
CCB 240-274788/194			23:55																											
ZZZZZZ			00:00																											
ZZZZZZ			00:05																											
ZZZZZZ			00:09																											
ZZZZZZ			00:13																											
ZZZZZZ			00:18																											
ZZZZZZ			00:22																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/14/2017 08:30 End Date: 04/15/2017 02:55

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			00:27																											
ZZZZZZ			00:31																											
ZZZZZZ			00:35																											
ZZZZZZ			00:40																											
CCV 240-274788/205			00:44																											
CCB 240-274788/206			00:49																											
ZZZZZZ			00:53																											
ZZZZZZ			00:58																											
ZZZZZZ			01:02																											
ZZZZZZ			01:07																											
ZZZZZZ			01:11																											
ZZZZZZ			01:16																											
ZZZZZZ			01:21																											
ZZZZZZ			01:25																											
ZZZZZZ			01:30																											
ZZZZZZ			01:34																											
CCV 240-274788/217			01:39																											
CCB 240-274788/218			01:43																											
ZZZZZZ			01:48																											
ZZZZZZ			01:52																											
ZZZZZZ			01:57																											
ZZZZZZ			02:01																											
ZZZZZZ			02:06																											
ZZZZZZ			02:10																											
ZZZZZZ			02:15																											
ZZZZZZ			02:19																											
ZZZZZZ			02:23																											
ZZZZZZ			02:28																											
CCV 240-274788/229			02:33																											
CCB 240-274788/230			02:37																											
ZZZZZZ			02:41																											
ZZZZZZ			02:46																											
CCV 240-274788/233			02:51																											
CCB 240-274788/234			02:55																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/12/2017 14:45 End Date: 04/13/2017 01:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			14:45																									
ICIS 240-274564/2			14:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-274564/3 IC	1		14:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-274564/4 IC	1		14:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-274564/5 IC	1		15:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-274564/6 IC	1		15:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-274564/7	1		15:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-274564/8	1		15:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICVL 240-274564/9	1		15:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-274564/10	1		15:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-274564/11	1		15:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-274564/12			15:31																									
CCB 240-274564/13			15:36																									
CCV 240-274564/14			15:47																									
CCB 240-274564/15			15:52																									
ZZZZZZ			15:56																									
ZZZZZZ			16:00																									
ZZZZZZ			16:04																									
ZZZZZZ			16:08																									
CCV 240-274564/20	1		16:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-274564/21	1		16:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
MB 240-274206/1-A	1	R	16:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 240-274206/3-A	1	R	16:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			16:29																									
240-77895-O-1-A SD ^5	5	R	16:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			16:38																									
240-77895-O-1-D MS	1	R	16:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-77895-O-1-E MSD	1	R	16:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			16:50																									
ZZZZZZ			16:54																									
ZZZZZZ			16:58																									
CCV 240-274564/32	1		17:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-274564/33	1		17:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			17:11																									
240-77879-2	1	R	17:15	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
240-77879-3	1	R	17:19	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
240-77879-8	1	R	17:24	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			17:28																									
ZZZZZZ			17:32																									
ZZZZZZ			17:36																									
CCV 240-274564/41	1		17:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-274564/42	1		17:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/12/2017 14:45 End Date: 04/13/2017 01:04

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCVL 240-274564/43	1		17:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			17:53																									
ZZZZZZ			17:57																									
ZZZZZZ			18:01																									
ZZZZZZ			18:05																									
ZZZZZZ			18:10																									
ZZZZZZ			18:14																									
ZZZZZZ			18:18																									
ZZZZZZ			18:22																									
ZZZZZZ			18:26																									
CCV 240-274564/53			18:30																									
CCB 240-274564/54			18:35																									
ZZZZZZ			18:39																									
ZZZZZZ			18:43																									
ZZZZZZ			18:47																									
ZZZZZZ			18:51																									
ZZZZZZ			18:55																									
ZZZZZZ			19:00																									
ZZZZZZ			19:04																									
ZZZZZZ			19:08																									
ZZZZZZ			19:12																									
ZZZZZZ			19:16																									
CCV 240-274564/65			19:21																									
CCB 240-274564/66			19:25																									
ZZZZZZ			19:29																									
ZZZZZZ			19:33																									
ZZZZZZ			19:37																									
ZZZZZZ			19:42																									
ZZZZZZ			19:46																									
ZZZZZZ			19:50																									
ZZZZZZ			19:54																									
ZZZZZZ			19:58																									
ZZZZZZ			20:03																									
ZZZZZZ			20:07																									
CCV 240-274564/77			20:11																									
CCB 240-274564/78			20:15																									
CCV 240-274564/79			20:19																									
CCB 240-274564/80			20:24																									
ZZZZZZ			20:28																									
ZZZZZZ			20:32																									
ZZZZZZ			20:36																									
ZZZZZZ			20:40																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/12/2017 14:45 End Date: 04/13/2017 01:04

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			20:45																											
ZZZZZZ			20:49																											
ZZZZZZ			20:53																											
CCV 240-274564/88			20:57																											
CCB 240-274564/89			21:01																											
CCVL 240-274564/90			21:05																											
ZZZZZZ			21:09																											
ZZZZZZ			21:14																											
ZZZZZZ			21:18																											
ZZZZZZ			21:22																											
ZZZZZZ			21:26																											
ZZZZZZ			21:30																											
ZZZZZZ			21:34																											
ZZZZZZ			21:38																											
ZZZZZZ			21:42																											
CCV 240-274564/100			21:46																											
CCB 240-274564/101			21:51																											
ZZZZZZ			21:55																											
ZZZZZZ			21:59																											
ZZZZZZ			22:03																											
ZZZZZZ			22:08																											
ZZZZZZ			22:12																											
ZZZZZZ			22:16																											
ZZZZZZ			22:20																											
ZZZZZZ			22:25																											
ZZZZZZ			22:29																											
CCV 240-274564/111			22:33																											
CCB 240-274564/112			22:37																											
ZZZZZZ			22:42																											
CCV 240-274564/114			22:46																											
CCB 240-274564/115			22:50																											
CCVL 240-274564/116			22:54																											
ZZZZZZ			22:58																											
ZZZZZZ			23:03																											
ZZZZZZ			23:07																											
ZZZZZZ			23:11																											
ZZZZZZ			23:15																											
ZZZZZZ			23:19																											
ZZZZZZ			23:23																											
ZZZZZZ			23:27																											
ZZZZZZ			23:31																											
CCV 240-274564/126			23:35																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/12/2017 14:45 End Date: 04/13/2017 01:04

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
CCB 240-274564/127			23:40																											
ZZZZZZ			23:44																											
ZZZZZZ			23:48																											
ZZZZZZ			23:52																											
ZZZZZZ			23:57																											
ZZZZZZ			00:01																											
ZZZZZZ			00:05																											
ZZZZZZ			00:09																											
ZZZZZZ			00:13																											
ZZZZZZ			00:17																											
ZZZZZZ			00:22																											
CCV 240-274564/138			00:26																											
CCB 240-274564/139			00:30																											
CCV 240-274564/140			00:34																											
CCB 240-274564/141			00:38																											
ZZZZZZ			00:43																											
CCV 240-274564/143			00:47																											
CCB 240-274564/144			00:51																											
CCVL 240-274564/145			00:55																											
CCV 240-274564/146			00:59																											
CCB 240-274564/147			01:04																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/14/2017 09:31 End Date: 04/14/2017 14:37

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			09:31																									
ICIS 240-274908/2			09:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-274908/3 IC	1		09:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-274908/4 IC	1		09:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-274908/5 IC	1		09:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-274908/6 IC	1		09:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-274908/7	1		09:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-274908/8	1		10:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICVL 240-274908/9	1		10:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-274908/10	1		10:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-274908/11	1		10:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-274908/12			10:17																									
CCB 240-274908/13			10:21																									
CCV 240-274908/14			10:46																									
CCB 240-274908/15			10:50																									
ZZZZZZ			10:54																									
CCV 240-274908/17			10:58																									
CCB 240-274908/18			11:02																									
CCVL 240-274908/19			11:07																									
ZZZZZZ			11:11																									
ZZZZZZ			11:15																									
ZZZZZZ			11:20																									
ZZZZZZ			11:24																									
ZZZZZZ			11:28																									
ZZZZZZ			11:32																									
ZZZZZZ			11:36																									
ZZZZZZ			11:40																									
ZZZZZZ			11:44																									
CCV 240-274908/29			11:48																									
CCB 240-274908/30			11:52																									
ZZZZZZ			11:57																									
ZZZZZZ			12:01																									
ZZZZZZ			12:05																									
ZZZZZZ			12:09																									
ZZZZZZ			12:14																									
ZZZZZZ			12:18																									
CCV 240-274908/37	1		12:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-274908/38	1		12:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
MB 240-274588/1-A	1	R	12:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			12:35																									
240-77967-6	1	R	12:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-77967-9	1	R	12:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/14/2017 09:31 End Date: 04/14/2017 14:37

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCV 240-274908/43	1		12:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-274908/44	1		12:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-274908/45	1		12:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			13:00																									
ZZZZZZ			13:04																									
ZZZZZZ			13:08																									
ZZZZZZ			13:12																									
LCS 240-274588/3-A	1	R	13:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			13:21																									
ZZZZZZ			13:25																									
ZZZZZZ			13:29																									
ZZZZZZ			13:33																									
CCV 240-274908/55	1		13:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-274908/56	1		13:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-274908/57	1		13:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-274908/58	1		13:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-274908/59	1		13:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-77967-8	1	R	13:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-77967-8 SD	5	R	14:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			14:08																									
240-77967-8 MS	1	R	14:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-77967-8 MSD	1	R	14:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-274908/65	1		14:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-274908/66	1		14:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-274908/67	1		14:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-274908/68			14:33																									
CCB 240-274908/69			14:37																									

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 04/12/2017 13:20 End Date: 04/12/2017 17:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-274352/1-A			13:20	X																								
IC 240-274352/2-A			13:22	X																								
IC 240-274352/3-A			13:24	X																								
IC 240-274352/4-A			13:26	X																								
IC 240-274352/5-A			13:28	X																								
IC 240-274352/6-A			13:30	X																								
ICV 240-274352/7-A	1		13:34	X																								
ICB 240-274352/8-A	1		13:36	X																								
CRA 240-274352/9-A	1		13:38	X																								
CCV 240-274352/10-A			13:40																									
CCB 240-274352/11-A			13:42																									
ZZZZZZ			13:44																									
ZZZZZZ			13:46																									
ZZZZZZ			13:48																									
ZZZZZZ			13:50																									
ZZZZZZ			13:52																									
ZZZZZZ			13:54																									
ZZZZZZ			13:56																									
ZZZZZZ			13:59																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
ZZZZZZ			14:08																									
CCV 240-274352/10-A	1		14:10	X																								
CCB 240-274352/11-A	1		14:11	X																								
ZZZZZZ			14:14																									
ZZZZZZ			14:16																									
ZZZZZZ			14:18																									
ZZZZZZ			14:20																									
MB 240-274210/1-A	1	T	14:22	X																								
LCS 240-274210/2-A	1	T	14:24	X																								
ZZZZZZ			14:26																									
ZZZZZZ			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:32																									
CCV 240-274352/10-A	1		14:34	X																								
CCB 240-274352/11-A	1		14:36	X																								
ZZZZZZ			14:39																									
CCV 240-274352/10-A	1		14:40	X																								
CCB 240-274352/11-A	1		14:43	X																								
ZZZZZZ			14:45																									
240-77895-O-1-G MS	1	T	14:47	X																								
240-77895-O-1-H MSD	1	T	14:49	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 04/12/2017 13:20 End Date: 04/12/2017 17:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			14:51																									
240-77879-2	1	T	14:53	X																								
240-77879-3	1	T	14:55	X																								
240-77879-8	1	T	14:57	X																								
ZZZZZZ			14:59																									
ZZZZZZ			15:01																									
CCV 240-274352/10-A	1		15:03	X																								
CCB 240-274352/11-A	1		15:05	X																								
ZZZZZZ			15:07																									
ZZZZZZ			15:09																									
ZZZZZZ			15:11																									
CCV 240-274352/10-A			15:13																									
CCB 240-274352/11-A			15:15																									
ZZZZZZ			15:24																									
ZZZZZZ			15:26																									
ZZZZZZ			15:28																									
ZZZZZZ			15:31																									
ZZZZZZ			15:33																									
ZZZZZZ			15:35																									
ZZZZZZ			15:37																									
CCV 240-274352/10-A			15:39																									
CCB 240-274352/11-A			15:41																									
ZZZZZZ			15:43																									
ZZZZZZ			15:45																									
ZZZZZZ			15:47																									
ZZZZZZ			15:49																									
ZZZZZZ			15:51																									
ZZZZZZ			15:53																									
ZZZZZZ			15:55																									
ZZZZZZ			15:57																									
ZZZZZZ			15:59																									
ZZZZZZ			16:00																									
CCV 240-274352/10-A			16:02																									
CCB 240-274352/11-A			16:04																									
ZZZZZZ			16:07																									
ZZZZZZ			16:09																									
ZZZZZZ			16:11																									
ZZZZZZ			16:13																									
ZZZZZZ			16:14																									
ZZZZZZ			16:16																									
ZZZZZZ			16:18																									
ZZZZZZ			16:20																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: H2 Analysis Method: 7470A

Start Date: 04/12/2017 13:20 End Date: 04/12/2017 17:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			16:22																									
ZZZZZZ			16:24																									
CCV 240-274352/10-A			16:26																									
CCB 240-274352/11-A			16:28																									
ZZZZZZ			16:31																									
ZZZZZZ			16:33																									
ZZZZZZ			16:35																									
ZZZZZZ			16:37																									
ZZZZZZ			16:40																									
ZZZZZZ			16:41																									
ZZZZZZ			16:43																									
ZZZZZZ			16:45																									
ZZZZZZ			16:47																									
ZZZZZZ			16:49																									
CCV 240-274352/10-A			16:51																									
CCB 240-274352/11-A			16:53																									
ZZZZZZ			16:55																									
ZZZZZZ			16:57																									
ZZZZZZ			16:59																									
ZZZZZZ			17:01																									
ZZZZZZ			17:03																									
ZZZZZZ			17:05																									
ZZZZZZ			17:07																									
CCV 240-274352/10-A			17:09																									
CCB 240-274352/11-A			17:11																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/14/2017 14:09 End Date: 04/14/2017 17:19

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-274724/1-A			14:09	X
IC 240-274724/2-A			14:11	X
IC 240-274724/3-A			14:13	X
IC 240-274724/4-A			14:15	X
IC 240-274724/5-A			14:17	X
IC 240-274724/6-A			14:19	X
ICV 240-274724/7-A	1		14:22	X
ICB 240-274724/8-A	1		14:24	X
CRA 240-274724/9-A	1		14:26	X
CCV 240-274724/10-A	1		14:28	X
CCB 240-274724/11-A	1		14:30	X
MB 240-274592/1-A	1	T	14:33	X
LCS 240-274592/2-A	1	T	14:35	X
ZZZZZZ			14:37	
240-77968-G-1-E MS	1	T	14:39	X
240-77968-G-1-F MSD	1	T	14:41	X
ZZZZZZ			14:43	
ZZZZZZ			14:45	
ZZZZZZ			14:47	
ZZZZZZ			14:49	
ZZZZZZ			14:51	
CCV 240-274724/10-A	1		14:53	X
CCB 240-274724/11-A	1		14:55	X
ZZZZZZ			14:57	
ZZZZZZ			14:59	
ZZZZZZ			15:01	
ZZZZZZ			15:03	
240-77967-6	1	T	15:05	X
240-77967-8	1	T	15:07	X
240-77967-9	1	T	15:09	X
ZZZZZZ			15:11	
ZZZZZZ			15:13	
ZZZZZZ			15:14	
CCV 240-274724/10-A	1		15:16	X
CCB 240-274724/11-A	1		15:19	X
ZZZZZZ			15:21	
ZZZZZZ			15:23	
ZZZZZZ			15:25	
ZZZZZZ			15:27	
ZZZZZZ			15:29	
ZZZZZZ			15:31	
ZZZZZZ			15:34	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/14/2017 14:09 End Date: 04/14/2017 17:19

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			15:36																									
ZZZZZZ			15:38																									
ZZZZZZ			15:40																									
CCV 240-274724/10-A			15:42																									
CCB 240-274724/11-A			15:43																									
ZZZZZZ			15:46																									
ZZZZZZ			15:48																									
ZZZZZZ			15:50																									
ZZZZZZ			15:52																									
ZZZZZZ			15:54																									
ZZZZZZ			15:56																									
ZZZZZZ			15:57																									
ZZZZZZ			15:59																									
ZZZZZZ			16:01																									
ZZZZZZ			16:03																									
CCV 240-274724/10-A			16:05																									
CCB 240-274724/11-A			16:07																									
ZZZZZZ			16:10																									
ZZZZZZ			16:11																									
ZZZZZZ			16:13																									
ZZZZZZ			16:15																									
ZZZZZZ			16:17																									
ZZZZZZ			16:19																									
ZZZZZZ			16:22																									
ZZZZZZ			16:24																									
ZZZZZZ			16:26																									
ZZZZZZ			16:28																									
CCV 240-274724/10-A			16:30																									
CCB 240-274724/11-A			16:32																									
ZZZZZZ			16:35																									
ZZZZZZ			16:37																									
ZZZZZZ			16:39																									
ZZZZZZ			16:41																									
ZZZZZZ			16:43																									
ZZZZZZ			16:45																									
ZZZZZZ			16:47																									
ZZZZZZ			16:49																									
ZZZZZZ			16:51																									
ZZZZZZ			16:53																									
CCV 240-274724/10-A			16:55																									
CCB 240-274724/11-A			16:57																									
ZZZZZZ			16:59																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/14/2017 14:09 End Date: 04/14/2017 17:19

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			17:01																									
ZZZZZZ			17:03																									
ZZZZZZ			17:05																									
ZZZZZZ			17:07																									
ZZZZZZ			17:09																									
ZZZZZZ			17:11																									
ZZZZZZ			17:13																									
ZZZZZZ			17:15																									
CCV 240-274724/10-A			17:17																									
CCB 240-274724/11-A			17:19																									

Prep Types:
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/12/2017 End Date: 04/12/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-274564/3 I	14:54	99		102		102		99		101	
STD2 240-274564/4 I	14:58	95		102		97		95		98	
STD3 240-274564/5 I	15:02	93		97		93		90		95	
STD4 240-274564/6 I	15:06	93		99		94		97		97	
ICV 240-274564/7	15:10	96		103		99		98		99	
ICB 240-274564/8	15:15	102		103		104		106		106	
ICVL 240-274564/9	15:19	100		104		104		105		105	
ICSA 240-274564/10	15:23	88		94		89		87		91	
ICSAB 240-274564/11	15:27	84		91		86		87		90	
CCV 240-274564/20	16:13	97		102		97		95		96	
CCB 240-274564/21	16:17	100		101		101		102		102	
MB 240-274206/1-A	16:21	98		101		99		99		98	
LCS 240-274206/3-A	16:25	87		92		91		90		90	
240-77895-O-1-A SD	16:34	96		96		96		98		98	
240-77895-O-1-D MS	16:42	84		89		88		87		86	
240-77895-O-1-E MSD	16:46	85		89		91		88		87	
CCV 240-274564/32	17:02	96		99		96		94		95	
CCB 240-274564/33	17:07	99		98		99		100		101	
240-77879-2	17:15	86		92		92		90		90	
240-77879-3	17:19	88		90		91		87		88	
240-77879-8	17:24	90		91		92		89		89	
CCV 240-274564/41	17:40	94		98		94		93		96	
CCB 240-274564/42	17:45	97		95		97		99		98	
CCVL 240-274564/43	17:49	95		99		98		100		99	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/12/2017 End Date: 04/12/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-274564/3 I	14:54	100		99		99					
STD2 240-274564/4 I	14:58	97		98		94					
STD3 240-274564/5 I	15:02	95		94		91					
STD4 240-274564/6 I	15:06	97		97		94					
ICV 240-274564/7	15:10	99		98		96					
ICB 240-274564/8	15:15	103		103		101					
ICVL 240-274564/9	15:19	102		102		100					
ICSA 240-274564/10	15:23	90		90		92					
ICSAB 240-274564/11	15:27	89		89		89					
CCV 240-274564/20	16:13	98		98		93					
CCB 240-274564/21	16:17	101		101		99					
MB 240-274206/1-A	16:21	99		99		105					
LCS 240-274206/3-A	16:25	93		92		95					
240-77895-O-1-A SD	16:34	99		98		101					
240-77895-O-1-D MS	16:42	91		92		92					
240-77895-O-1-E MSD	16:46	92		92		93					
CCV 240-274564/32	17:02	97		97		92					
CCB 240-274564/33	17:07	99		99		97					
240-77879-2	17:15	93		93		92					
240-77879-3	17:19	92		93		92					
240-77879-8	17:24	94		94		97					
CCV 240-274564/41	17:40	98		98		92					
CCB 240-274564/42	17:45	99		98		97					
CCVL 240-274564/43	17:49	101		100		98					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/14/2017 End Date: 04/14/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-274908/3 I	09:39	101		102		102		100		99	
STD2 240-274908/4 I	09:43	99		102		102		97		98	
STD3 240-274908/5 I	09:48	100		102		103		95		97	
STD4 240-274908/6 I	09:52	101		104		104		103		102	
ICV 240-274908/7	09:56	110		108		112		104		104	
ICB 240-274908/8	10:00	110		112		115		110		109	
ICVL 240-274908/9	10:04	112		116		115		111		110	
ICSA 240-274908/10	10:09	103		99		104		94		96	
ICSAB 240-274908/11	10:13	100		102		104		98		99	
CCV 240-274908/37	12:22	97		100		99		97		97	
CCB 240-274908/38	12:26	98		98		102		99		97	
MB 240-274588/1-A	12:30	96		96		103		98		94	
240-77967-6	12:39	94		97		104		99		95	
240-77967-9	12:43	96		99		107		101		96	
CCV 240-274908/43	12:47	95		101		100		99		97	
CCB 240-274908/44	12:51	100		101		103		101		98	
CCVL 240-274908/45	12:56	91		103		87		102		100	
LCS 240-274588/3-A	13:16	87		90		95		93		88	
CCV 240-274908/55	13:37	77		79		81		80		80	
CCB 240-274908/56	13:42	81		82		84		85		83	
CCV 240-274908/57	13:46	84		83		85		83		83	
CCB 240-274908/58	13:50	86		86		88		89		87	
CCVL 240-274908/59	13:54	86		85		87		88		87	
240-77967-8	13:58	81		82		92		81		79	
240-77967-8 SD	14:04	87		89		93		90		87	
240-77967-8 MS	14:12	75		88		83		87		82	
240-77967-8 MSD	14:16	80		86		92		83		81	
CCV 240-274908/65	14:20	89		90		93		90		88	
CCB 240-274908/66	14:24	89		90		93		94		90	
CCVL 240-274908/67	14:29	86		90		87		92		91	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/14/2017 End Date: 04/14/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-274908/3 I	09:39	102		101		99					
STD2 240-274908/4 I	09:43	100		100		96					
STD3 240-274908/5 I	09:48	98		98		92					
STD4 240-274908/6 I	09:52	100		100		102					
ICV 240-274908/7	09:56	103		101		100					
ICB 240-274908/8	10:00	108		105		104					
ICVL 240-274908/9	10:04	108		107		105					
ICSA 240-274908/10	10:09	95		95		94					
ICSAB 240-274908/11	10:13	98		98		97					
CCV 240-274908/37	12:22	99		98		94					
CCB 240-274908/38	12:26	98		98		97					
MB 240-274588/1-A	12:30	97		97		101					
240-77967-6	12:39	98		99		100					
240-77967-9	12:43	100		99		100					
CCV 240-274908/43	12:47	100		100		94					
CCB 240-274908/44	12:51	101		99		99					
CCVL 240-274908/45	12:56	99		99		100					
LCS 240-274588/3-A	13:16	94		94		92					
CCV 240-274908/55	13:37	85		84		83					
CCB 240-274908/56	13:42	86		86		87					
CCV 240-274908/57	13:46	87		87		84					
CCB 240-274908/58	13:50	89		89		90					
CCVL 240-274908/59	13:54	88		88		88					
240-77967-8	13:58	85		85		85					
240-77967-8 SD	14:04	90		90		89					
240-77967-8 MS	14:12	88		88		84					
240-77967-8 MSD	14:16	86		86		82					
CCV 240-274908/65	14:20	91		92		88					
CCB 240-274908/66	14:24	92		91		91					
CCVL 240-274908/67	14:29	92		92		92					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274588 Batch Start Date: 04/13/17 16:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 04/14/17 00:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00069	MTICP1 00062	MTICP2A 00070	MTTMHCL 00151
MB 240-274588/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-274588/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-77958-F-1 MS		3005A, 6010C	D	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-77958-F-1 MSD		3005A, 6010C	D	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-77967-O-8	MRC-MW12A-041117	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00115
MB 240-274588/1		3005A, 6010C		1 mL
LCS 240-274588/2		3005A, 6010C		1 mL
240-77958-F-1 MS		3005A, 6010C	D	1 mL
240-77958-F-1 MSD		3005A, 6010C	D	1 mL
240-77967-O-8	MRC-MW12A-041117	3005A, 6010C	R	1 mL

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB3
Pipette ID	MP1-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274206 Batch Start Date: 04/11/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 04/11/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00028	MTICPMSA 00030	MTICPMSB 00030	MTTMHCL 00151
MB 240-274206/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-274206/3		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77895-O-1 MS		3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77895-O-1 MSD		3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77879-F-2	MRC-MW71B-040617	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-77879-F-3	MRC-MW71A-040617	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-77879-F-8	MRC-MW11A-040717	3005A, 6020A	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00115					
MB 240-274206/1		3005A, 6020A		1 mL					
LCS 240-274206/3		3005A, 6020A		1 mL					
240-77895-O-1 MS		3005A, 6020A	R	1 mL					
240-77895-O-1 MSD		3005A, 6020A	R	1 mL					
240-77879-F-2	MRC-MW71B-040617	3005A, 6020A	R	1 mL					
240-77879-F-3	MRC-MW71A-040617	3005A, 6020A	R	1 mL					
240-77879-F-8	MRC-MW11A-040717	3005A, 6020A	R	1 mL					

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB3
Pipette ID	MP1-MP2-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274588 Batch Start Date: 04/13/17 16:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 04/14/17 00:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00028	MTICPMSA 00030	MTICPMSB 00030	MTTMHCL 00151
MB 240-274588/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-274588/3		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77967-F-6	MRC-MW11C-041117	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-77967-O-8	MRC-MW12A-041117	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-77967-O-8 MS	MRC-MW12A-041117	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77967-O-8 MSD	MRC-MW12A-041117	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-77967-A-9	MRC-DUP08-041117	3005A, 6020A	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00115					
MB 240-274588/1		3005A, 6020A		1 mL					
LCS 240-274588/3		3005A, 6020A		1 mL					
240-77967-F-6	MRC-MW11C-041117	3005A, 6020A	R	1 mL					
240-77967-O-8	MRC-MW12A-041117	3005A, 6020A	R	1 mL					
240-77967-O-8 MS	MRC-MW12A-041117	3005A, 6020A	R	1 mL					
240-77967-O-8 MSD	MRC-MW12A-041117	3005A, 6020A	R	1 mL					
240-77967-A-9	MRC-DUP08-041117	3005A, 6020A	R	1 mL					

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB3
Pipette ID	MP1-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274210 Batch Start Date: 04/11/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 04/11/17 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00042	MTHGCALW 01476	MTKMN04W 00128
MB 240-274210/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-274210/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-77895-O-1 MS		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77895-O-1 MSD		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77879-F-2	MRC-MW71B-040617	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-77879-F-3	MRC-MW71A-040617	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-77879-F-8	MRC-MW11A-040717	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00115					
MB 240-274210/1		7470A, 7470A		1.25 mL					
LCS 240-274210/2		7470A, 7470A		1.25 mL					
240-77895-O-1 MS		7470A, 7470A	T	1.25 mL					
240-77895-O-1 MSD		7470A, 7470A	T	1.25 mL					
240-77879-F-2	MRC-MW71B-040617	7470A, 7470A	T	1.25 mL					
240-77879-F-3	MRC-MW71A-040617	7470A, 7470A	T	1.25 mL					
240-77879-F-8	MRC-MW11A-040717	7470A, 7470A	T	1.25 mL					

Batch Notes	
Batch Comment	take out temps within range
Hot Block ID	C2
Pipette ID	MP2-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274352 Batch Start Date: 04/12/17 09:25 Batch Analyst: Nguyen, Diem

Batch Method: 7470A Batch End Date: 04/12/17 11:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00042	MTHGCALW 01477	MTHgICV_00001 00159
ICV 240-274352/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-274352/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-274352/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-274352/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-274352/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00128	MTTMHNO3 00115				
ICV 240-274352/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-274352/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-274352/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-274352/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-274352/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Hot Block ID	C2
Pipette ID	A4, MP1, MP2
Digestion Tube/Cup ID	1610138

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274592 Batch Start Date: 04/13/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 04/13/17 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00042	MTHGCALW 01479	MTKMN04W 00128
MB 240-274592/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-274592/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-77968-G-1 MS		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77968-G-1 MSD		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-77967-F-6	MRC-MW11C-041117	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-77967-O-8	MRC-MW12A-041117	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-77967-A-9	MRC-DUP08-041117	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00115					
MB 240-274592/1		7470A, 7470A		1.25 mL					
LCS 240-274592/2		7470A, 7470A		1.25 mL					
240-77968-G-1 MS		7470A, 7470A	T	1.25 mL					
240-77968-G-1 MSD		7470A, 7470A	T	1.25 mL					
240-77967-F-6	MRC-MW11C-041117	7470A, 7470A	T	1.25 mL					
240-77967-O-8	MRC-MW12A-041117	7470A, 7470A	T	1.25 mL					
240-77967-A-9	MRC-DUP08-041117	7470A, 7470A	T	1.25 mL					

Batch Notes	
Batch Comment	take out temps within range
Hot Block ID	B1
Pipette ID	MP2-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274724 Batch Start Date: 04/14/17 09:10 Batch Analyst: Nguyen, Diem

Batch Method: 7470A Batch End Date: 04/14/17 11:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00042	MTHGCALW 01480	MTHgICV_00001 00160
ICV 240-274724/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-274724/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-274724/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-274724/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-274724/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00128	MTTMHNO3 00115				
ICV 240-274724/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-274724/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-274724/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-274724/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-274724/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Hot Block ID	B1
Pipette ID	A4, MP1, A3
Digestion Tube/Cup ID	1610138

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG No.:

Project: MRC 2017 GW

Client Sample ID	Lab Sample ID
MRC-MW12A-041117	240-77967-8

Comments:

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Analyst: LCN Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274398

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	13:48	Chloride	50.8	50.0	102	90-110		WCICLCS_00603
			Sulfate	51.8	50.0	104	90-110		WCICLCS_00603
11	ICB	14:08	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Analyst: LCN Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274399

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	13:48	Nitrite as N	2.54	2.50	101	90-110		WCICLCS_00603
			Nitrate as N	2.56	2.50	103	90-110		WCICLCS_00603
11	ICB	14:08	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Analyst: LKG Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274462

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	14:28	Chloride	49.8	50.0	100	90-110		WCICCCV_00766
			Sulfate	51.2	50.0	102	90-110		WCICCCV_00766
2	CCB	14:49	Chloride	0.41				U	
			Sulfate	0.13				U	
13	CCV	18:30	Chloride	49.6	50.0	99	90-110		WCICCCV_00766
			Sulfate	51.3	50.0	103	90-110		WCICCCV_00766
14	CCB	18:50	Chloride	0.41				U	
			Sulfate	0.13				U	
25	CCV	22:31	Chloride	49.5	50.0	99	90-110		WCICCCV_00766
			Sulfate	51.1	50.0	102	90-110		WCICCCV_00766
26	CCB	22:51	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Analyst: LKG Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274463

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	18:30	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.52	2.50	101	90-110		WCICCCV_00766
14	CCB	18:50	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
25	CCV	22:31	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.51	2.50	101	90-110		WCICCCV_00766
26	CCB	22:51	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
37	CCV	02:32	Nitrite as N	2.54	2.50	102	90-110		WCICCCV_00766
			Nitrate as N	2.51	2.50	101	90-110		WCICCCV_00766
38	CCB	02:52	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Analyst: JWW Batch Start Date: 03/14/2017

Reporting Units: mg/L Analytical Batch No.: 270540

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
11	ICV	13:18	Orthophosphate as P	0.551	0.509	108	90-110		WCWIBBYNUTRIE_00072
12	ICB	13:22	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Analyst: LCN Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274459

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:30	Orthophosphate as P	0.509	0.500	102	90-110		WCPhos 1ppm_00024
2	CCB	13:31	Orthophosphate as P	0.0050				U	
8	CCV	13:37	Orthophosphate as P	0.509	0.500	102	90-110		WCPhos 1ppm_00024
9	CCB	13:38	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Analyst: TPH Batch Start Date: 04/17/2017

Reporting Units: mg/L Analytical Batch No.: 274970

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
2	CCV	09:08	Dissolved Organic Carbon	26.4	25.0	106	90-110		WC TOC CCV_00352
3	CCB	09:15	Dissolved Organic Carbon	0.080				U	
11	CCVL	11:03	Dissolved Organic Carbon	5.22	5.00	104	90-110		WC TOC CCVL_00148
12	CCV	11:12	Dissolved Organic Carbon	26.1	25.0	105	90-110		WC TOC CCV_00352
13	CCB	11:20	Dissolved Organic Carbon	0.080				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 274861 Date: 04/14/2017 16:56							
2320B-1997	MB 240-274861/23	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 274462 Date: 04/12/2017 15:09							
300.0	MB 240-274462/3	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-274462/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 274463 Date: 04/12/2017 23:11							
300.0	MB 240-274463/27	Nitrite as N	0.038	U	mg/L	0.10	1
300.0	MB 240-274463/27	Nitrate as N	0.035	U	mg/L	0.10	1
Batch ID: 275338 Date: 04/19/2017 14:52 Prep Batch: 275331 Date: 04/19/2017 10:30							
4500 NH3 C-1997	MB 240-275331/1-A	Ammonia	0.87	U	mg/L	2.0	1
Batch ID: 274459 Date: 04/12/2017 13:32							
4500 P E-1999	MB 240-274459/3	Orthophosphate as P	0.0050	U	mg/L	0.10	1
Batch ID: 274970 Date: 04/17/2017 09:26							
9060	MB 240-274970/4	Dissolved Organic Carbon	0.080	U	mg/L	1.0	1
Batch ID: 274830 Date: 04/14/2017 15:21							
SM 2540C	MB 240-274830/1	Total Dissolved Solids	7.4	U	mg/L	10	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 274462 Date: 04/12/2017 19:50											
300.0	240-77783-C-25	Chloride	44		mg/L						
300.0	240-77783-C-25 MS	Chloride	90.5		mg/L	50.0	93	80-120			
300.0	240-77783-C-25	Sulfate	410		mg/L						
300.0	240-77783-C-25 MS	Sulfate	425		mg/L	50.0	39	80-120			4
Batch ID: 274463 Date: 04/12/2017 22:11											
300.0	240-77974-M-3	Nitrite as N	0.19	U	mg/L						
300.0	240-77974-M-3 MS	Nitrite as N	2.60		mg/L	2.50	104	80-120			
300.0	240-77974-M-3	Nitrate as N	0.18	U	mg/L						
300.0	240-77974-M-3 MS	Nitrate as N	2.54		mg/L	2.50	101	80-120			
Batch ID: 275338 Date: 04/19/2017 15:12 Prep Batch: 275331 Date: 04/19/2017 10:30											
4500 NH3 C-1997	240-77912-D-1 -B	Ammonia	1.1	J	mg/L						
4500 NH3 C-1997	240-77912-D-1 -B MS	Ammonia	5.32		mg/L	4.00	105	67-127			
Batch ID: 274459 Date: 04/12/2017 13:35											
4500 P E-1999	240-77967-8	Orthophosphate as P	0.083	J	mg/L						
4500 P E-1999	240-77967-8 MS	Orthophosphate as P	0.571		mg/L	0.500	98	31-154			
Batch ID: 274970 Date: 04/17/2017 10:17											
9060	240-78035-I-2	Dissolved Organic Carbon	0.67	J	mg/L						
9060	240-78035-I-2 MS	Dissolved Organic Carbon	25.6		mg/L	25.0	100	65-134			

Sulfate = sample concentration greater than 4X spike added. no qualifications.

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 274462 Date: 04/12/2017 20:10											
300.0	240-77783-C-2 5 MSD	Chloride	91.3		mg/L	50.0	94	80-120	1	15	
300.0	240-77783-C-2 5 MSD	Sulfate	430		mg/L	50.0	50	80-120	1	15	4
Batch ID: 274463 Date: 04/12/2017 23:51											
300.0	240-77974-M-3 MSD	Nitrite as N	2.58		mg/L	2.50	103	80-120	1	15	
300.0	240-77974-M-3 MSD	Nitrate as N	2.57		mg/L	2.50	103	80-120	1	15	
Batch ID: 275338 Date: 04/19/2017 15:14			Prep Batch: 275331			Date: 04/19/2017 10:30					
4500 NH3 C-1997	240-77912-D-1 -C MSD	Ammonia	5.04		mg/L	4.00	98	67-127	15	16	
Batch ID: 274459 Date: 04/12/2017 13:36											
4500 P E-1999	240-77967-8 MSD	Orthophosphate as P	0.569		mg/L	0.500	97	31-154	0	11	
Batch ID: 274970 Date: 04/17/2017 10:25											
9060	240-78035-I-2 MSD	Dissolved Organic Carbon	25.5		mg/L	25.0	99	65-134	1	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 274861	Date: 04/14/2017 17:13							
2320B-1997		240-77955-F-1	Alkalinity	60	mg/L			
2320B-1997		240-77955-F-1 DU	Alkalinity	63.5	mg/L	5	20	
Batch ID: 274830	Date: 04/14/2017 15:21							
SM 2540C		240-77959-R-1	Total Dissolved Solids	280	mg/L			
SM 2540C		240-77959-R-1 DU	Total Dissolved Solids	273	mg/L	2	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 274861	Date: 04/14/2017 16:49										
						LCS Source: WCPHENOMINER_00017					
2320B-1997	LCS 240-274861/22	Alkalinity	374		mg/L	377	99	86-123			
Batch ID: 274462	Date: 04/12/2017 15:29										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-274462/4	Chloride	51.1		mg/L	50.0	102	90-110			
300.0	LCS 240-274462/4	Sulfate	52.0		mg/L	50.0	104	90-110			
Batch ID: 274463	Date: 04/12/2017 23:31										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-274463/28	Nitrite as N	2.54		mg/L	2.50	101	90-110			
300.0	LCS 240-274463/28	Nitrate as N	2.56		mg/L	2.50	102	90-110			
Batch ID: 275338	Date: 04/19/2017 14:53	Prep Batch: 275331	Date: 04/19/2017 10:30								
						LCS Source: WCWIBBYNUTRIE_00074					
4500 NH3 C-1997	LCS 240-275331/2-A	Ammonia	10.6		mg/L	10.3	103	82-116			
Batch ID: 274459	Date: 04/12/2017 13:33										
						LCS Source: WCWIBBYNUTRIE_00072					
4500 P E-1999	LCS 240-274459/4	Orthophosphate as P	0.510		mg/L	0.509	100	80-120			
Batch ID: 274970	Date: 04/17/2017 09:42										
						LCS Source: WC LCS_00057					
9060	LCS 240-274970/6	Dissolved Organic Carbon	49.3		mg/L	46.3	107	80-120			
Batch ID: 274830	Date: 04/14/2017 15:21										
						LCS Source: WCPHENOVSOLID_00021					
SM 2540C	LCS 240-274830/2	Total Dissolved Solids	230		mg/L	208	111	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LOW LEVEL CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 274970	Date: 04/17/2017 09:34										
						LCS Source: WC LCS_00058					
9060	LLCS 240-274970/5	Dissolved Organic Carbon	4.88		mg/L	4.63	105	88-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 MDL Date: 05/28/2013 15:29

Prep Method: 4500 NH3 B-1997

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia		2	0.87

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 XMDL Date: 05/28/2013 15:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		2	0.87

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 MDL Date: 07/12/2013 09:18

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	1.9

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 XMDL Date: 07/12/2013 09:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.9

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 MDL Date: 08/12/2014 17:01

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 XMDL Date: 08/12/2014 17:02

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: 4500 P E-1999 MDL Date: 03/31/2016 13:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: 4500 P E-1999 XMDL Date: 02/17/2016 10:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 MDL Date: 04/28/2015 15:58

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 XMDL Date: 04/28/2015 15:59

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 01/28/2010 09:50

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-77879-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 01/28/2010 09:51

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.4

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Prep Method: 4500 NH3 B-1997

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-275331/1-A	04/19/2017 10:30	275331		50	50
LCS 240-275331/2-A	04/19/2017 10:30	275331		50	50
240-77912-D-1-B MS	04/19/2017 10:30	275331		50	50
240-77912-D-1-C MSD	04/19/2017 10:30	275331		50	50
240-77967-8	04/19/2017 10:30	275331		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 4500 NH3 C-1997

Start Date: 04/19/2017 14:52 End Date: 04/19/2017 15:29

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
MB 240-275331/1-A	1	T	14:52	X																								
LCS 240-275331/2-A	1	T	14:53	X																								
ZZZZZZ			14:55																									
ZZZZZZ			14:57																									
ZZZZZZ			14:58																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
ZZZZZZ			15:05																									
ZZZZZZ			15:07																									
ZZZZZZ			15:09																									
ZZZZZZ			15:10																									
240-77912-D-1-B MS	1	T	15:12	X																								
240-77912-D-1-C MSD	1	T	15:14	X																								
ZZZZZZ			15:16																									
240-77967-8	1	T	15:17	X																								
ZZZZZZ			15:19																									
ZZZZZZ			15:21																									
ZZZZZZ			15:23																									
ZZZZZZ			15:24																									
ZZZZZZ			15:26																									
ZZZZZZ			15:28																									
ZZZZZZ			15:29																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 04/14/2017 12:58 End Date: 04/14/2017 22:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 240-274861/1			12:58																									
RINSE 240-274861/2			13:04																									
ZZZZZZ			13:24																									
ZZZZZZ			13:38																									
ZZZZZZ			13:44																									
ZZZZZZ			13:49																									
ZZZZZZ			14:00																									
ZZZZZZ			14:12																									
ZZZZZZ			14:25																									
ZZZZZZ			14:37																									
ZZZZZZ			14:50																									
ZZZZZZ			15:02																									
ZZZZZZ			15:15																									
ZZZZZZ			15:20																									
ZZZZZZ			15:29																									
ZZZZZZ			15:43																									
ZZZZZZ			16:05																									
ZZZZZZ			16:14																									
ZZZZZZ			16:23																									
ZZZZZZ			16:32																									
ZZZZZZ			16:36																									
LCS 240-274861/22	1	T	16:49	X																								
MB 240-274861/23	1	T	16:56	X																								
ZZZZZZ			17:04																									
240-77955-F-1 DU	1	T	17:13	X																								
ZZZZZZ			17:21																									
ZZZZZZ			17:30																									
ZZZZZZ			17:40																									
240-77967-8	1	T	17:49	X																								
ZZZZZZ			18:01																									
ZZZZZZ			18:12																									
ZZZZZZ			18:16																									
ZZZZZZ			18:29																									
ZZZZZZ			18:42																									
ZZZZZZ			18:53																									
ZZZZZZ			19:05																									
ZZZZZZ			19:15																									
ZZZZZZ			19:28																									
ZZZZZZ			19:43																									
ZZZZZZ			19:57																									
ZZZZZZ			20:10																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 04/14/2017 12:58 End Date: 04/14/2017 22:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			20:24																									
ZZZZZZ			20:28																									
ZZZZZZ			20:38																									
ZZZZZZ			20:49																									
ZZZZZZ			21:02																									
ZZZZZZ			21:13																									
ZZZZZZ			21:23																									
ZZZZZZ			21:37																									
ZZZZZZ			21:46																									
ZZZZZZ			21:54																									
ZZZZZZ			22:04																									
ZZZZZZ			22:14																									
ZZZZZZ			22:18																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/12/2017 10:47 End Date: 04/12/2017 14:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				CL-	SO4																							
STD1 240-274398/1 IC	1		10:47	X	X																							
STD2 240-274398/2 IC	1		11:07	X	X																							
STD3 240-274398/3 IC	1		11:27	X	X																							
STD4 240-274398/4 IC	1		11:48	X	X																							
STD5 240-274398/5 ICRT	1		12:08	X	X																							
STD6 240-274398/6 IC	1		12:28	X	X																							
STD7 240-274398/7 IC	1		12:48	X	X																							
STD8 240-274398/8 IC	1		13:08	X	X																							
STD9 240-274398/9 IC	1		13:28	X	X																							
ICV 240-274398/10	1		13:48	X	X																							
ICB 240-274398/11	1		14:08	X	X																							

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/12/2017 10:47 End Date: 04/12/2017 14:08

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
STD1 240-274399/1 IC	1		10:47	X	X																								
STD2 240-274399/2 IC	1		11:07	X	X																								
STD3 240-274399/3 IC	1		11:27	X	X																								
STD4 240-274399/4 IC	1		11:48	X	X																								
STD5 240-274399/5 ICRT	1		12:08	X	X																								
STD6 240-274399/6 IC	1		12:28	X	X																								
STD7 240-274399/7 IC	1		12:48	X	X																								
STD8 240-274399/8 IC	1		13:08	X	X																								
STD9 240-274399/9 IC	1		13:28	X	X																								
ICV 240-274399/10	1		13:48	X	X																								
ICB 240-274399/11	1		14:08	X	X																								

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/12/2017 14:28 End Date: 04/13/2017 05:13

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
CCV 240-274462/1	1		14:28	X	X																								
CCB 240-274462/2	1		14:49	X	X																								
MB 240-274462/3	1	T	15:09	X	X																								
LCS 240-274462/4	1	T	15:29	X	X																								
ZZZZZZ			15:49																										
ZZZZZZ			16:09																										
ZZZZZZ			16:29																										
ZZZZZZ			16:49																										
ZZZZZZ			17:09																										
ZZZZZZ			17:29																										
ZZZZZZ			17:50																										
ZZZZZZ			18:10																										
CCV 240-274462/13	1		18:30	X	X																								
CCB 240-274462/14	1		18:50	X	X																								
ZZZZZZ			19:10																										
ZZZZZZ			19:30																										
240-77783-C-25 MS	5	T	19:50	X	X																								
240-77783-C-25 MSD	5	T	20:10	X	X																								
240-77967-8	1	T	20:30	X	X																								
ZZZZZZ			20:50																										
ZZZZZZ			21:10																										
ZZZZZZ			21:30																										
ZZZZZZ			21:50																										
ZZZZZZ			22:11																										
CCV 240-274462/25	1		22:31	X	X																								
CCB 240-274462/26	1		22:51	X	X																								
ZZZZZZ			23:11																										
ZZZZZZ			23:31																										
ZZZZZZ			23:51																										
ZZZZZZ			00:11																										
ZZZZZZ			00:31																										
ZZZZZZ			00:51																										
ZZZZZZ			01:11																										
ZZZZZZ			01:31																										
ZZZZZZ			01:51																										
ZZZZZZ			02:11																										
CCV 240-274462/37			02:32																										
CCB 240-274462/38			02:52																										
ZZZZZZ			03:12																										
ZZZZZZ			03:32																										
ZZZZZZ			03:52																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/12/2017 14:28 End Date: 04/13/2017 05:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				CL-	SO4																							
ZZZZZZ			04:12																									
ZZZZZZ			04:33																									
CCV 240-274462/44			04:53																									
CCB 240-274462/45			05:13																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/12/2017 18:30 End Date: 04/13/2017 05:13

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-274463/13	1		18:30	X	X																								
CCB 240-274463/14	1		18:50	X	X																								
ZZZZZZ			19:30																										
ZZZZZZ			19:50																										
ZZZZZZ			20:10																										
240-77967-8	1	T	20:30	X	X																								
ZZZZZZ			20:50																										
ZZZZZZ			21:10																										
ZZZZZZ			21:30																										
ZZZZZZ			21:50																										
240-77974-M-3 MS	5	T	22:11	X	X																								
CCV 240-274463/25	1		22:31	X	X																								
CCB 240-274463/26	1		22:51	X	X																								
MB 240-274463/27	1	T	23:11	X	X																								
LCS 240-274463/28	1	T	23:31	X	X																								
240-77974-M-3 MSD	5	T	23:51	X	X																								
ZZZZZZ			00:11																										
ZZZZZZ			00:31																										
ZZZZZZ			00:51																										
ZZZZZZ			01:11																										
ZZZZZZ			01:31																										
ZZZZZZ			01:51																										
ZZZZZZ			02:11																										
CCV 240-274463/37	1		02:32	X	X																								
CCB 240-274463/38	1		02:52	X	X																								
ZZZZZZ			03:12																										
ZZZZZZ			03:32																										
ZZZZZZ			03:52																										
ZZZZZZ			04:12																										
ZZZZZZ			04:33																										
CCV 240-274463/44			04:53																										
CCB 240-274463/45			05:13																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: ERNIE Analysis Method: 4500 P E-1999

Start Date: 03/14/2017 12:45 End Date: 03/14/2017 13:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp P																								
IC 240-270540/1	1		12:45	X																								
IC 240-270540/2	1		12:48	X																								
IC 240-270540/3	1		12:51	X																								
IC 240-270540/4	1		12:55	X																								
IC 240-270540/5	1		12:58	X																								
IC 240-270540/6	1		13:01	X																								
IC 240-270540/7	1		13:05	X																								
IC 240-270540/8	1		13:08	X																								
IC 240-270540/9	1		13:11	X																								
IC 240-270540/10	1		13:15	X																								
ICV 240-270540/11	1		13:18	X																								
ICB 240-270540/12	1		13:22	X																								
ZZZZZZ			13:25																									
ZZZZZZ			13:28																									
ZZZZZZ			13:32																									
ZZZZZZ			13:35																									
ZZZZZZ			13:38																									
CCV 240-270540/18			13:42																									
CCB 240-270540/19			13:45																									

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: ERNIE Analysis Method: 4500 P E-1999

Start Date: 04/12/2017 13:30 End Date: 04/12/2017 13:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp																								
CCV 240-274459/1	1		13:30	X																								
CCB 240-274459/2	1		13:31	X																								
MB 240-274459/3	1	T	13:32	X																								
LCS 240-274459/4	1	T	13:33	X																								
240-77967-8	1	T	13:34	X																								
240-77967-8 MS	1	T	13:35	X																								
240-77967-8 MSD	1	T	13:36	X																								
CCV 240-274459/8	1		13:37	X																								
CCB 240-274459/9	1		13:38	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: Clark Analysis Method: 9060

Start Date: 04/17/2017 08:36 End Date: 04/17/2017 11:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			08:36																									
CCV 240-274970/2	1		09:08	X																								
CCB 240-274970/3	1		09:15	X																								
MB 240-274970/4	1	D	09:26	X																								
LLCS 240-274970/5	1	D	09:34	X																								
LCS 240-274970/6	1	D	09:42	X																								
ZZZZZZ			09:50																									
240-78035-I-2 MS	2	D	10:17	X																								
240-78035-I-2 MSD	2	D	10:25	X																								
240-77967-8	1	D	10:34	X																								
CCVL 240-274970/11	1		11:03	X																								
CCV 240-274970/12	1		11:12	X																								
CCB 240-274970/13	1		11:20	X																								

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 04/14/2017 15:21 End Date: 04/14/2017 15:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-274830/1	1	T	15:21	X																								
LCS 240-274830/2	1	T	15:21	X																								
240-77959-R-1 DU	1	T	15:21	X																								
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
240-77967-8	1	T	15:21	X																								
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
ZZZZZZ			15:21																									
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ZZZZZZ			15:21																									
ZZZZZZ			15:21																									

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 275331 Batch Start Date: 04/19/17 10:30 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 B-1997 Batch End Date: 04/19/17 12:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	AdjustedpH	WCNH31000 00046	WCWIBBYNUTRIE 00074
MB 240-275331/1		4500 NH3 B-1997, 4500 NH3 C-1997		x	50 mL	50 mL	x SU		
LCS 240-275331/2		4500 NH3 B-1997, 4500 NH3 C-1997		x	50 mL	50 mL	x SU		50 mL
240-77912-D-1 MS		4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU	0.2 mL	
240-77912-D-1 MSD		4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU	0.2 mL	
240-77967-M-8	MRC-MW12A-041117	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		

Batch Notes	
Base used for pH adjustment	2997226
Batch Comment	beakers 2975240
Borate Buffer Dispenser ID	2997247
Boric Acid Dispenser ID	2953532
Distilliation Unit ID	distillation block in wet prep
Distillation Temperature	162 Degrees C
Glass Beads Lot #	Hengar 10/24/2014
Phenanthroline ID	2959101
Pipette ID	B3 C6 E6

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 275338 Batch Start Date: 04/19/17 14:52 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 C-1997 Batch End Date: 04/19/17 15:31

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TitrantVolume1			
MB 240-275331/1-A		4500 NH3 C-1997		50 mL	50 mL	0.00 mL			
LCS 240-275331/2-A		4500 NH3 C-1997		50 mL	50 mL	1.90 mL			
240-77912-D-1-B MS		4500 NH3 C-1997	T	50 mL	50 mL	0.95 mL			
240-77912-D-1-C MSD		4500 NH3 C-1997	T	50 mL	50 mL	0.90 mL			
240-77967-M-8-A	MRC-MW12A-041117	4500 NH3 C-1997	T	50 mL	50 mL	0.30 mL			

Batch Notes	
Batch Comment	indicator 2914203
Sulfuric Acid Lot Number	2851240
Nominal Amount Used	50 mL
Normality of First Titrant	0.0200 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274861 Batch Start Date: 04/14/17 12:58 Batch Analyst: Weimer, Joshua W

Batch Method: 2320B-1997 Batch End Date: 04/15/17 10:56

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	CalcMsg	FinalAmount	WCPHENOMINER 00017		
LCS 240-274861/22		2320B-1997		50 mL	BuretStart2 is blank	50 mL	50 mL		
MB 240-274861/23		2320B-1997		50 mL	BuretStart2 is blank	50 mL			
240-77955-F-1 DU		2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			
240-77967-L-8	MRC-MW12A-041117	2320B-1997	T	50 mL	BuretStart2 is blank	50 mL			

Batch Notes	
pH Buffer 1 ID	4-2971169
pH Buffer 2 ID	7-2951051
pH Buffer 3 ID	10-2971171
pH Buffer 4 ID	12-2971173
Sulfuric Acid Lot Number	2851240
Nominal Amount Used	50 mL
Probe ID	WCP 114
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274398 Batch Start Date: 04/12/17 10:47 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00282	WCICLCS 00603			
STD1 240-274398/1 IC		300.0		5 mL	0.025 mL				
STD2 240-274398/2 IC		300.0		5 mL	0.125 mL				
STD3 240-274398/3 IC		300.0		5 mL	0.25 mL				
STD4 240-274398/4 IC		300.0		5 mL	0.5 mL				
STD5 240-274398/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-274398/6 IC		300.0		5 mL	2 mL				
STD7 240-274398/7 IC		300.0		5 mL	2.5 mL				
STD8 240-274398/8 IC		300.0		5 mL	3.75 mL				
STD9 240-274398/9 IC		300.0		5 mL	5 mL				
ICV 240-274398/10		300.0		5 mL		5 mL			
ICB 240-274398/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274399 Batch Start Date: 04/12/17 10:47 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00282	WCICLCS 00603			
STD1 240-274399/1 IC		300.0		5 mL	0.025 mL				
STD2 240-274399/2 IC		300.0		5 mL	0.125 mL				
STD3 240-274399/3 IC		300.0		5 mL	0.25 mL				
STD4 240-274399/4 IC		300.0		5 mL	0.5 mL				
STD5 240-274399/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-274399/6 IC		300.0		5 mL	2 mL				
STD7 240-274399/7 IC		300.0		5 mL	2.5 mL				
STD8 240-274399/8 IC		300.0		5 mL	3.75 mL				
STD9 240-274399/9 IC		300.0		5 mL	5 mL				
ICV 240-274399/10		300.0		5 mL		5 mL			
ICB 240-274399/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274462 Batch Start Date: 04/12/17 14:28 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCICCCV 00766	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014
CCV 240-274462/1		300.0		5 mL		5 mL			
CCB 240-274462/2		300.0		5 mL					
MB 240-274462/3		300.0		5 mL	5 mL				
LCS 240-274462/4		300.0		5 mL	5 mL		5 mL		
CCV 240-274462/13		300.0		5 mL		5 mL			
CCB 240-274462/14		300.0		5 mL					
240-77783-C-25 MS	MW-128-040517	300.0	T	5 mL				0.1 mL	0.1 mL
240-77783-C-25 MSD	MW-128-040517	300.0	T	5 mL				0.1 mL	0.1 mL
240-77967-N-8	MRC-MW12A-041117	300.0	T	5 mL					
CCV 240-274462/25		300.0		5 mL		5 mL			
CCB 240-274462/26		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274463 Batch Start Date: 04/12/17 18:30 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00766	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-274463/13		300.0		5 mL	5 mL				
CCB 240-274463/14		300.0		5 mL					
240-77967-N-8	MRC-MW12A-041117	300.0	T	5 mL					
240-77974-M-3 MS	GW-041117-JB-07	300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-274463/25		300.0		5 mL	5 mL				
CCB 240-274463/26		300.0		5 mL					
MB 240-274463/27		300.0		5 mL					
LCS 240-274463/28		300.0		5 mL		5 mL			
240-77974-M-3 MSD	GW-041117-JB-07	300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-274463/37		300.0		5 mL	5 mL				
CCB 240-274463/38		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 270540 Batch Start Date: 03/14/17 12:45 Batch Analyst: Weimer, Joshua W

Batch Method: 4500 P E-1999 Batch End Date: 03/14/17 13:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00023	WCWIBBYNUTRIE 00072		
IC 240-270540/1		4500 P E-1999		10 mL	10 mL				
IC 240-270540/2		4500 P E-1999		10 mL	10 mL	0.1 mL			
IC 240-270540/3		4500 P E-1999		10 mL	10 mL	0.2 mL			
IC 240-270540/4		4500 P E-1999		10 mL	10 mL	0.6 mL			
IC 240-270540/5		4500 P E-1999		10 mL	10 mL	1 mL			
IC 240-270540/6		4500 P E-1999		10 mL	10 mL	2 mL			
IC 240-270540/7		4500 P E-1999		10 mL	10 mL	4 mL			
IC 240-270540/8		4500 P E-1999		10 mL	10 mL	6 mL			
IC 240-270540/9		4500 P E-1999		10 mL	10 mL	8 mL			
IC 240-270540/10		4500 P E-1999		10 mL	10 mL	10 mL			
ICV 240-270540/11		4500 P E-1999		10 mL	10 mL		1 mL		
ICB 240-270540/12		4500 P E-1999		10 mL	10 mL				

Batch Notes	
Pipette ID	B8/C2/E1/F5

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274459 Batch Start Date: 04/12/17 14:09 Batch Analyst: Nolle, Laura C

Batch Method: 4500 P E-1999 Batch End Date: 04/12/17 14:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00024	WCPHOS50PPM 00089	WCWIBBYNUTRIE 00072	
CCV 240-274459/1		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-274459/2		4500 P E-1999		10 mL	10 mL				
MB 240-274459/3		4500 P E-1999		10 mL	10 mL				
LCS 240-274459/4		4500 P E-1999		10 mL	10 mL			1 mL	
240-77967-N-8	MRC-MW12A-041117	4500 P E-1999	T	10 mL	10 mL				
240-77967-N-8 MS	MRC-MW12A-041117	4500 P E-1999	T	10 mL	10 mL		0.1 mL		
240-77967-N-8 MSD	MRC-MW12A-041117	4500 P E-1999	T	10 mL	10 mL		0.1 mL		
CCV 240-274459/8		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-274459/9		4500 P E-1999		10 mL	10 mL				

Batch Notes	
Pipette ID	B2,E7

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274970 Batch Start Date: 04/17/17 08:36 Batch Analyst: Harshman, Tom

Batch Method: 9060 Batch End Date: 04/17/17 11:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WC LCS 00057	WC LCS 00058	WC TOC CCV 00352	WC TOC CCVL 00148
CCV 240-274970/2		9060		40 mL	40 mL			40 mL	
CCB 240-274970/3		9060		40 mL	40 mL				
MB 240-274970/4		9060		40 mL	40 mL				
LLCS 240-274970/5		9060		40 mL	40 mL		4 mL		
LCS 240-274970/6		9060		40 mL	40 mL	40 mL			
240-78035-I-2 MS		9060	D	40 mL	40 mL			20 mL	
240-78035-I-2 MSD		9060	D	40 mL	40 mL			20 mL	
240-77967-H-8	MRC-MW12A-041117	9060	D	40 mL	40 mL				
CCVL 240-274970/11		9060		40 mL	40 mL				40 mL
CCV 240-274970/12		9060		40 mL	40 mL			40 mL	
CCB 240-274970/13		9060		40 mL	40 mL				

Batch Notes	
Phosphoric Acid ID	2959670
Sodium Persulfate ID	2959671

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274830 Batch Start Date: 04/14/17 15:21 Batch Analyst: Larue, Charles

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	WeightOne%Diff
MB 240-274830/1		SM 2540C			100 mL	3.8890 g	3.8896 g	3.8897 g	Pass No Unit
LCS 240-274830/2		SM 2540C			50 mL	3.8994 g	3.9110 g	3.9109 g	Pass No Unit
240-77959-R-1 DU		SM 2540C	T	510 umhos/cm	100 mL	3.8921 g	3.9199 g	3.9194 g	Pass No Unit
240-77967-N-8	MRC-MW12A-041117	SM 2540C	T	670 umhos/cm	100 mL	3.8923 g	3.9300 g	3.9303 g	Pass No Unit

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3	Residue4
MB 240-274830/1		SM 2540C		N/A No Unit	N/A	0.0006 g	0.0007 g	N/A g	N/A g
LCS 240-274830/2		SM 2540C		N/A No Unit	N/A	0.0116 g	0.0115 g	N/A g	N/A g
240-77959-R-1 DU		SM 2540C	T	N/A No Unit	N/A	0.0278 g	0.0273 g	N/A g	N/A g
240-77967-N-8	MRC-MW12A-041117	SM 2540C	T	N/A No Unit	N/A	0.0377 g	0.038 g	N/A g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WCPHENOVSOLID 00021			
MB 240-274830/1		SM 2540C		100 mL	OK				
LCS 240-274830/2		SM 2540C		100 mL	OK	50 mL			
240-77959-R-1 DU		SM 2540C	T	100 mL	OK				
240-77967-N-8	MRC-MW12A-041117	SM 2540C	T	100 mL	OK				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-77879-1

SDG No.:

Batch Number: 274830 Batch Start Date: 04/14/17 15:21 Batch Analyst: Larue, Charles

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	B048
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	4/17/17 1428
Constant Weight (WT2) Date/Time Out	4/17/17 1538
Uncorrected CW (Wt2) Temp In	181 Degrees C
Uncorrected CW (Wt2) Temp Out	181 Degrees C
Constant Weight (WT3) Date/time In	4/17/17 1708
Constant Weight (WT3) Date/Time Out	4/17/17 18:10
Uncorrected CW (Wt3) Temp In	181 Degrees C
Uncorrected CW (Wt3) Temp Out	181 Degrees C
Date/Time Samples placed in Oven	4/14/17 1626
Filter Paper ID	2909659
Nominal Amount Used	100 mL
Oven ID	006
Uncorrected In Temperature	102 Degrees C
Weight(WT1) Start Date/Time	4/17/17 0830
Weight(WT1) Date/Time Out	4/17/17 1245
Uncorrected Weight(WT1) Start Temp	180 Degrees C
Uncorrected Weight(WT1) Temp Out	181 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

VOA Calibration Calculations:

Initial Calibration 10/31/2016
Instrument A3UX9

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.5	25736	1053367	20	0.9773	0.9773
1	53152	1040169	20	1.0220	1.022
10	540436	1006186	20	1.0742	1.0742
20	1133250	1089945	20	1.0397	1.0397
40	2227875	1042770	20	1.0682	1.0682
80	4642598	1088824	20	1.0660	1.066
			Average	1.0412	1.0412
			Standard Deviation	0.0371	
			RSD	0.0357	
			%RSD	3.5657	3.6

Internal standard for benzene is fluorobenzene

Continuing Calibration 04/11/2017@ 8:51
Instrument A3UX9

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
20	1204727	1168586	20	1.0309	-0.9787763	1.031	-1

MIDDLE RIVER
SDG 240-77879-1

SAMPLE IDENTIFICATION	MRC-MW71B-040617
COMPOUND	1,1-DICHLOROETHANE
COMPOUND AREA	129501
INTERNAL STANDARD AMOUNT (ng)	20
DILUTION FACTOR	1.25
INTERNAL STANDARD AREA	1077669
AVERAGE RRF	0.4365
VOLUME EXTRACT (ml)	1
INJECTION VOLUME (µl)	1

CONCENTRATION = 6.88 ng/g or µg/Kg

SVOA Calibration Calculations:

Initial Calibration 4/20/2017
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.01	3250	173407	0.5	0.93710	0.9371
0.02	6527	178826	0.5	0.91248	0.9125
0.05	15645	176325	0.5	0.88728	0.8873
0.1	31361	184600	0.5	0.84943	0.8494
0.2	59327	183995	0.5	0.80610	0.8061
0.4	120608	181158	0.5	0.83220	0.8322
0.8	248676	182565	0.5	0.85133	0.8513
			Average	0.86799	0.868
			Standard Deviation	0.0463	
			RSD	0.0533	
			%RSD	5.33409	5.3

Continuing Calibration 04/21/2017 @ 21:30
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
0.8	145982	113092	0.5	0.8068	-7.054639	0.8068	-7.1

MRC Groundwater
SDG 240-77879-1

SAMPLE IDENTIFICATION	MRC-MW71B-040617
COMPOUND	1,4-Dioxane
COMPOUND AREA	101963
INTERNAL STANDARD AMOUNT (ng)	0.5
DILUTION FACTOR	3.333
INTERNAL STANDARD AREA	113399
AVERAGE RRF	0.868
VOLUME OF SAMPLE	0.1
VOLUME OF EXTRACT	2
CONCENTRATION =	34.5262 ug/L

RSK175 Calibration Calculations:

Initial Calibration 10/15/2016
Instrument ZPID

Ethane

Analyte Concentration	Analyte Response	RRF	Reported RRF
0.486	6652	13687.2428	13684
3.74	51341	13727.5401	13730
18.7	268353	14350.4278	14353
187	2727568	14585.9251	14588
748	10875652	14539.6417	14544
3739	53866713	14406.7165	14408
	Average	14216.2490	14217
	Standard Deviation	403.5366	
	RSD	0.0284	
	%RSD	2.8386	2.9

Calculation RSK175	**Sample**		
	MRC-MW12A-041117		
Target Analyte	Methane		
Analyte Response	12328986		
Slope/QR A	15344.897		
Dilution Factor (DF)	10		
Final Volume	15		
Initial Volume	15		
	on column amount	803.4583745	
		8034.58	ug/L

Sample Report

Sample Table

Sample Name	240-77879-f-2-a
Data File Name	035SMPL.d
Data Path Name	D:\Analytical Runs\I10041217F.b
Acq Date Time	2017-04-12T17:15:34-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Sample MRC-MW71B-040617
Cobalt 61 ug/L

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	45	2	NoGas	24.065	24.065	1.99	935095	0.00	10000	
Be	9	45	2	NoGas	0.112	0.112	28.87	856	0.01	2000	
B	11	45	2	NoGas	26.116	26.116	1.11	180353	0.01	300	
Na	23	45	1	He	34866.446	34866.446	1.03	27480462	0.13	500000	
Mg	24	45	1	He	6961.902	6961.902	0.75	2773840	0.25	500000	
Al	27	45	1	He	14.270	14.270	8.09	2352	0.61	200000	
K	39	45	1	He	2851.869	2851.869	0.68	818306	0.35	500000	
Ca	44	45	1	He	9696.577	9696.577	2.27	145551	6.66	500000	
Ti	47	45	1	He	0.411	0.411	59.54	47	0.88	2500	
V	51	45	1	He	0.216	0.216	22.57	772	0.03	10000	
Cr	52	103	1	He	0.178	0.178	6.80	957	0.02	10000	
Mn	55	45	1	He	3080.385	3080.385	2.00	7180223	0.04	10000	
Fe	56	45	1	He	21099.042	21099.042	2.90	64871860	0.03	200000	
Co	59	45	1	He	60.567	60.567	2.94	365836	0.02	5000	
Ni	60	45	1	He	74.253	74.253	1.50	116162	0.06	10000	
Cu	63	45	1	He	0.324	0.324	3.32	1899	0.02	10000	
Zn	66	45	1	He	153.138	153.138	2.22	112226	0.14	10000	
As	75	115	1	He	0.194	0.194	1.65	135	0.14	10000	
Se	78	115	1	He	0.409	0.409	35.89	29	1.42	10000	
Sr	88	103	1	He	32.834	32.834	0.41	93500	0.04	10000	
Mo	95	103	1	He	0.006	0.006	237.89	380	0.00	2000	
Ag	107	103	1	He	0.009	0.009	20.92	101	0.01	300	
Cd	111	115	1	He	0.018	0.018	22.38	44	0.04	4000	
Sn	118	115	1	He	0.948	0.948	4.26	2748	0.03	2000	
Sb	123	159	1	He	0.707	0.707	10.23	2018	0.04	200	
Ba	137	115	1	He	84.231	84.231	0.41	90076	0.09	10000	
W	182	159	1	He	0.109	0.109	20.55	1445	0.01	2500	
Tl	205	165	1	He	0.036	0.036	9.97	786	0.00	2000	
Pb	208	165	1	He	0.209	0.209	2.32	6285	0.00	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	4171874	1.09	4844301	86.12	60	120	
Sc	45	1	He	664843	1.87	723680	91.87	60	120	
Sc	45	2	NoGas	12391423	0.81	13529381	91.59	60	120	
Rh	103	1	He	3056576	1.06	3406603	89.73	60	120	
In	115	1	He	1310355	1.27	1463675	89.52	60	120	
Tb	159	1	He	4824418	1.28	5200369	92.77	60	120	
Ho	165	1	He	4972352	0.65	5321532	93.44	60	120	
Bi	209	1	He	3747832	2.20	4062181	92.26	60	120	

MRC-MW12A-041117

Analyst _____

LCS _____

Date _____

Sample Name	Run Date	Run Time	Conductivity	pH	P-Alk	Total Alk	BiCarbonate	Carbonate	Hydroxide	Fluoride	Acid
MB	4/14/2017	4:56 PM	-1.00	6.21	.00	.92	.92	.00	.00	-1.0000	-1.00
240-77955-f-1	4/14/2017	5:04 PM	-1.00	7.53	.00	60.29	60.29	.00	.00	-1.0000	-1.00
DU	4/14/2017	5:13 PM	-1.00	7.56	.00	63.48	63.48	.00	.00	-1.0000	-1.00
240-77955-f-2	4/14/2017	5:21 PM	-1.00	7.60	.00	71.88	71.88	.00	.00	-1.0000	-1.00
240-77955-f-3	4/14/2017	5:30 PM	-1.00	7.76	.00	49.55	49.55	.00	.00	-1.0000	-1.00
240-77959-n-1	4/14/2017	5:40 PM	-1.00	8.40	1.96	150.27	146.34	3.92	.00	-1.0000	-1.00
240-77967-l-8	4/14/2017	5:49 PM	-1.00	6.65	.00	157.32	157.32	.00	.00	-1.0000	-1.00
240-77974-c-1	4/14/2017	6:01 PM	-1.00	7.91	.00	329.60	329.60	.00	.00	-1.0000	-1.00
240-77974-c-2	4/14/2017	6:12 PM	-1.00	8.44	5.48	218.60	207.65	10.95	.00	-1.0000	-1.00
PH 7-4	4/14/2017	6:16 PM	-1.00	6.98	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0000	-1.00
240-77974-i-3	4/14/2017	6:29 PM	-1.00	8.10	.00	354.87	354.87	.00	.00	-1.0000	-1.00
DU 240-77974-i-3	4/14/2017	6:42 PM	-1.00	8.14	.00	344.59	344.59	.00	.00	-1.0000	-1.00
240-77974-c-4	4/14/2017	6:53 PM	-1.00	8.45	6.04	211.34	199.26	12.08	.00	-1.0000	-1.00
240-77974-c-5	4/14/2017	7:05 PM	-1.00	8.33	3.45	305.28	298.38	6.90	.00	-1.0000	-1.00
240-77974-c-6	4/14/2017	7:15 PM	-1.00	8.42	5.47	215.32	204.39	10.94	.00	-1.0000	-1.00
240-77974-c-7	4/14/2017	7:28 PM	-1.00	8.13	.00	310.56	310.56	.00	.00	-1.0000	-1.00
240-77974-c-8	4/14/2017	7:43 PM	-1.00	7.90	.00	495.59	495.59	.00	.00	-1.0000	-1.00
240-77974-c-9	4/14/2017	7:57 PM	-1.00	7.99	.00	356.89	356.89	.00	.00	-1.0000	-1.00
240-77974-c-10	4/14/2017	8:10 PM	-1.00	7.88	.00	383.93	383.93	.00	.00	-1.0000	-1.00
240-77974-c-11	4/14/2017	8:24 PM	-1.00	7.88	.00	378.14	378.14	.00	.00	-1.0000	-1.00
PH 7-5	4/14/2017	8:28 PM	-1.00	6.92	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0000	-1.00
240-77974-c-12	4/14/2017	8:38 PM	-1.00	8.22	.00	223.63	223.63	.00	.00	-1.0000	-1.00
DU	4/14/2017	8:49 PM	-1.00	8.19	.00	216.87	216.87	.00	.00	-1.0000	-1.00
240-77974-c-13	4/14/2017	9:02 PM	-1.00	8.17	.00	367.32	367.32	.00	.00	-1.0000	-1.00
240-77974-c-14	4/14/2017	9:13 PM	-1.00	8.39	3.62	202.95	195.71	7.23	.00	-1.0000	-1.00
240-77974-c-15	4/14/2017	9:23 PM	-1.00	8.11	.00	212.93	212.93	.00	.00	-1.0000	-1.00
240-77999-A-1	4/14/2017	9:37 PM	-1.00	7.87	.00	389.92	389.92	.00	.00	-1.0000	-1.00
240-77999-B-4	4/14/2017	9:46 PM	-1.00	7.79	.00	31.08	31.08	.00	.00	-1.0000	-1.00

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TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170412-64003.b\240-0064003-019_31_ECD_1.d
Lims ID: 240-77967-N-8
Client ID: MRC-MW12A-041117
Sample Type: Client
Inject. Date: 12-Apr-2017 20:30:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0064003-019
Misc. Info.: 240-77967-n-8
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-64003.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 13-Apr-2017 07:23:46 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK036

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	6.373	6.373	0.000	934975807	57.0	
3 Nitrite as N		7.987			ND	
5 Nitrate as N	11.477	11.733	-0.256	14417718	0.3643	
6 Sulfate	14.470	14.367	0.103	129302947	11.1	

MRC-MW12A-041117

MRC-MW12A-041117

DOC

TestAmerica
4101 Shuffel Street N.W.
North Canton, Ohio
44720
USA

Date Prepared: 04/17/2017 **By:**

Date Approved: **By:**

Sample Results Summary

Spl #	Vial #	Sample ID	Num Rep	Act Rep	Method	Type	Dil	Cust ID	Mode	Avg. Area (cts)	Avg. Mass (ug)	Avg. Conc (PPM)	Std. Dev	% RSD	Notes
1	-	Clean Up	4	4	DefaultCleanUpMethod	Clean Up	1 : 1	00000000	TIC	998	0.000	0.000	154	15.45	
						Clean Up			TOC	2,625	0.000	0.000	296	11.26	
2	1	ccv	1	1	10-100ppm 6ml - Jul 08, 2016; 10-06-56 AM	Sample	1 : 1	00000000	TOC	164,890	52.784	26.392	0	0.00	Pass
3	2	ccb	1	1	0-10 PPM TOC LOW CAL - Aug 02, 2016; 10-21-44 AM	Sample	1 : 1	00000000	TOC	2,435	0.236	0.032	0	0.00	Pass
4	3	mb	1	1	0-10 PPM TOC LOW CAL - Aug 02, 2016; 10-21-44 AM	Sample	1 : 1	00000000	TOC	2,684	0.318	0.042	0	0.00	Pass
5	4	llcs	1	1	0-10 PPM TOC LOW CAL - Aug 02, 2016; 10-21-44 AM	Sample	1 : 1	00000000	TOC	113,032	36.570	4.876	0	0.00	Pass
6	5	lcs	1	1	10-100ppm 6ml - Jul 08, 2016; 10-06-56 AM	Sample	1 : 1	00000000	TOC	298,769	98.672	49.336	0	0.00	Pass
7	6	240-78035-I-2	4	4	0-10 PPM TOC LOW CAL - Aug 02, 2016; 10-21-44 AM	Sample	1 : 1	00000000	TOC	17,059	5.040	0.672	789	4.62	Pass
8	7	ms 240-78035-I-2	1	1	10-100ppm 6ml - Jul 08, 2016; 10-06-56 AM	Sample	1 : 1	00000000	TOC	85,681	25.635	12.817	0	0.00	Pass
9	8	msd 240-78035-I-2	1	1	10-100ppm 6ml - Jul 08, 2016; 10-06-56 AM	Sample	1 : 1	00000000	TOC	85,291	25.501	12.750	0	0.00	Pass
10	9	240-77967-H-8	4	4	10-100ppm 6ml - Jul 08, 2016; 10-06-56 AM	Sample	1 : 1	00000000	TOC	95,359	28.952	14.476	1,865	1.96	Pass
11	10	ccvl	1	1	0-10 PPM TOC LOW CAL - Aug 02, 2016; 10-21-44 AM	Sample	1 : 1	00000000	TOC	120,968	39.178	5.224	0	0.00	Pass
12	11	ccv	1	1	10-100ppm 6ml - Jul 08, 2016; 10-06-56 AM	Sample	1 : 1	00000000	TOC	163,460	52.294	26.147	0	0.00	Pass
13	12	ccb	1	1	0-10 PPM TOC LOW CAL - Aug 02, 2016; 10-21-44 AM	Sample	1 : 1	00000000	TOC	2,393	0.222	0.030	0	0.00	Pass

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **MAY 25, 2017**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – VOC / 1,4-DIOXANE / DISSOLVED GASES / METALS / MISCELLANEOUS PARAMETERS**
MRC GROUNDWATER (GW) – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-78035-1

SAMPLES: 21 / Groundwater / VOC

MRC-DUP10-041717	MRC-MW02A-041417	MRC-MW08A-041417
MRC-MW109A-041417	MRC-MW109B-041317	MRC-MW10A-041417
MRC-MW12B-041217	MRC-MW12C-041217	MRC-MW13A-041217
MRC-MW22B-041417	MRC-MW27A-041717	MRC-MW27B-041717
MRC-MW27C-041717	MRC-MW63A-041217	MRC-MW70A-041417
MRC-MW70B-041417	MRC-MW80B-041417	MRC-MW93A-041417
TB-041217	TB-041317	TB-041717

15 / Groundwater / 1,4-Dioxane

MRC-DUP09-041417	MRC-MW08A-041417	MRC-MW10A-041417
MRC-MW12B-041217	MRC-MW12C-041217	MRC-MW13A-041217
MRC-MW22B-041417	MRC-MW27A-041717	MRC-MW27B-041717
MRC-MW27C-041717	MRC-MW63A-041217	MRC-MW70A-041417
MRC-MW70B-041417	MRC-MW80A-041417	MRC-MW80B-041417

4 / Groundwater / Dissolved Gases

MRC-MW12B-041217	MRC-MW24A-041717	MRC-MW27A-041717
MRC-MW27B-041717		

7 / Groundwater / Metals

MRC-MW12B-041217	MRC-MW12C-041217*	MRC-MW24A-041717*
MRC-MW27A-041717*	MRC-MW27B-041717*	MRC-MW70A-041417*
MRC-MW70B-041417*		

4 / Groundwater / Miscellaneous Parameters

MRC-MW12B-041217	MRC-MW24A-041717	MRC-MW27A-041717
MRC-MW27B-041717		

*Analyzed for select metals only.

OVERVIEW

The sample set for MRC GW, SDG 240-78035-1, consists of twenty-one (21) groundwater environmental samples and three (3) trip blanks. Samples were analyzed for volatile organic compounds (VOC), 1,4-dioxane, dissolved gases, metals, and miscellaneous parameters. Two (2) field duplicate pairs are included in this SDG: MRC-MW80A-041417 (original) / MRC-DUP09-041417 (duplicate); and MRC-MW27C-041717 (original) / MRC-DUP10-041717 (duplicate)

The samples were collected by Tetra Tech on April 12, 13, 14, and 17, 2017 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Methods 8260C (for VOC), 6010C/6020A (for metals other than mercury), 7470A (for mercury), and 9060 (for dissolved organic carbon) as well as EPA Method 522 (for 1,4-dioxane), Method RSK-175 (for dissolved gases), Standard Methods 2320B-1997 (for alkalinity), 4500 NH3 C-1997 (for ammonia), 4500 P E-1999 (for orthophosphate), and 2540C (for total dissolved solids), and MCAWW Method 300.0 (for anions) analysis and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method blanks, trip blanks, interference check sample results, surrogate spike recoveries, laboratory control sample/laboratory control sample duplicate results, matrix spike/matrix spike duplicate results, internal standard areas and recoveries, ICP serial dilution results, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- The VOC continuing calibration performed on 04/18/17 at 10:07 on instrument A3UX16 had a percent difference (%D) for acetone that was greater than the 20% quality control limit. Sample MRC-MW12B-041217 was affected. The non-detected result for acetone was qualified as estimated (UJ) in the affected sample.

- The VOC continuing calibration performed on 04/17/17 at 09:26 on instrument A3UX9 had %Ds for 1,1,2-trichlorotrifluoroethane and carbon disulfide that were greater than the 20% quality control limit. Samples TB-041217, MRC-MW13A-041217, MRC-MW12C-041217, and MRC-MW63A-041217 were affected. Non-detected results for the aforementioned analytes were qualified as estimated (UJ) in the affected samples.

- The VOC continuing calibration performed on 04/20/17 at 16:05 on instrument A3UX9 had %Ds for dichlorodifluoromethane and carbon disulfide that were greater than the 20% quality control limit. Samples TB-041717, MRC-MW27A-041717, MRC-MW27B-041717, MRC-MW27C-041717, and MRC-DUP10-041717 were affected. Non-detected results for the aforementioned analytes were qualified as estimated (UJ) in the affected samples.

- The following analytes were detected in the metals method/calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Reporting Limit (RL) (< or >)
Antimony	0.271 ug/L[(1)]	<RL
Beryllium	0.0790 ug/L[(1)]	<RL
Cobalt	0.0210 ug/L[(1)]	<RL
Antimony	0.310 ug/L[(2)]	<RL
Beryllium	0.112 ug/L[(2)]	<RL
Cadmium	0.0960 ug/L[(2)]	<RL
Cobalt	0.0210 ug/L[(2)]	<RL
Silver	0.0200 ug/L[(2)]	<RL

Barium	1.37 ug/L(3)	<RL
Copper	0.771 ug/L(3)	<RL
Iron	15.4 ug/L(3)	<RL
Manganese	0.535 ug/L(3)	<RL
Zinc	10.4 ug/L(3)	<RL
Barium	1.52 ug/L(4)	<RL
Copper	0.644 ug/L(4)	<RL
Iron	10.4 ug/L(4)	<RL
Manganese	0.419 ug/L(4)	<RL

1 – Maximum concentration detected in calibration blanks analyzed on 04/17/2017 associated with analysis batch 275101 affecting samples MRC-MW12B-041217 and MRC-MW12C-041217.
2 – Maximum concentration detected in calibration blanks analyzed on 04/18/2017 associated with analysis batch 275207 affecting samples MRC-MW70A-041417 and MRC-MW70B-041417.
3 – Maximum concentration detected in method blank associated with preparation batch 274741 affecting samples MRC-MW12B-041217 and MRC-MW12C-041217.
4 – Maximum concentration detected in method blank associated with preparation batch 274962 affecting samples MRC-MW70A-041417 and MRC-MW70B-041417.

Detected results reported for analytes listed above that were below the RL were qualified as non-detected (U) due to blank contamination in the affected samples.

- Detected results below the RL but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Non-detected results were reported to the MDL in the database on the Form Is.

VOC sample MRC-MW109B-041317 was analyzed at a dilution factor of 2. VOC sample MRC-MW12B-041217 was analyzed at a dilution factor of 10.

Trichloroethene in sample MRC-MW-27A-041717 was analyzed at a dilution factor of 4. Trichloroethene and cis-1,2-dichloroethene in sample MRC-MW27B-041717 were analyzed at a dilution factor of 10.

The VOC continuing calibration performed on 04/21/17 at 09:03 on instrument A3UX9 had %Ds for 1,1,2-trichlorotrifluoroethane, carbon disulfide, 2-butanone, carbon tetrachloride, methyl cyclohexane, and 1,2,4-trichlorobenzene that were greater than the 20% quality control limit. Samples MRC-MW27C-041717, MRC-MW27A-041717, and MRC-MW27B-041717 were associated with this calibration. No action was necessary because only results for cis-1,2-dihchloroethene (for sample MRC-MW27B-041717) and trichloroethene (for samples MRC-MW27C-041717, MRC-MW27A-041717, and MRC-MW27B-041717) were reported from this analysis.

The following analytes were detected in the VOC method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Methylene chloride	0.693 ug/L(1)	6.93 ug/L
Methylene chloride	0.606 ug/L(2)	6.06 ug/L
Methylene chloride	0.585 ug/L(3)	5.85 ug/L

1 – Maximum concentration detected in method blank associated with preparation batch 274915 affecting samples TB-041217, MRC-MW13A-041217, MRC-MW12C-041217, and MRC-MW63A-041217.
2 – Maximum concentration detected in method blank associated with preparation batch 275600 affecting samples TB-041717, MRC-MW27A-041717, MRC-MW27B-041717, MRC-MW27C-041717, and MRC-DUP10-041717.
3 – Maximum concentration detected in method blank associated with preparation batch 275664 affecting samples MRC-MW27C-041717 (for trichloroethene only), MRC-MW27A-041717 (for trichloroethene only), and MRC-MW27B-041717 (results for cis-1,2-dichloroethene and trichloroethene only).

Action levels of 10x the maximum concentrations of the common laboratory contaminant methylene chloride were used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were considered in evaluating for blank contamination. No action was necessary because results for methylene chloride were non-detected in the affected samples.

The matrix spike (MS)/matrix spike duplicate (MSD) performed on sample MRC-MW109B-041317 had MS and MSD percent recoveries (%Rs) that were greater than the laboratory quality control limits for acetone and a relative percent difference (RPD) that was greater than the laboratory quality control limits for methyl acetate. No action was necessary because results for acetone and methyl acetate were non-detected in the original unspiked sample, MRC-MW109B-041317.

For the VOC fraction, the laboratory case narrative notes that there was an MS/MSD analyzed in batch 274915 that could not be reported because the associated sample needed reanalyzed in a different batch.

For the VOC fraction, the MSD for batch 275600 was analyzed outside of the tune time, due to an instrument fault. This sample is a batch quality control sample; therefore, no validation action was necessary.

For the VOC fraction, the laboratory case narrative reports that insufficient sample volume was available to perform an MS/MSD associated with analytical batch 240-275664.

1,4-Dioxane was analyzed at a dilution factor of 10 in sample MRC-MW12B-041217.

The MS/MSD performed on sample MRC-MW13A-041217 had MS and MSD %Rs for 1,4-dioxane. No action was necessary because the laboratory control sample (LCS) associated with this sample (in preparation batch 116072) was compliant.

Manganese was analyzed at a dilution factor of 5 in samples MRC-MW24A-041717 and MRC-MW27A-041717.

Chloride, nitrate-N, nitrite-N, and sulfate were analyzed at a dilution factor of 5 in sample MRC-MW24A-041717, at a dilution factor of 10 in sample MRC-MW27A-041717, and at a dilution factor of 20 in sample MRC-MW27B-041717.

The MS/MSD sample 240-78088-P-1-C MS / 240-78088-P-1-D MSD (laboratory identifiers) had MS %Rs that were greater than the laboratory quality control limits for antimony and molybdenum and RPDs that were greater than the laboratory quality control limit for antimony, cadmium, and molybdenum. No action was necessary because this MS/MSD analysis was not performed on a sample from this SDG.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Several non-detected VOC analytes were qualified as estimated due to calibration noncompliance. Some results in the metals fraction were qualified as non-detected due to laboratory blank contamination.

Other Factors Affecting Data Quality: Detected results below RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Leigh A. Ciofani

Tetra Tech
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Joseph A. Samchuck

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Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-DUP10-041717			MRC-MW02A-041417			MRC-MW08A-041417			MRC-MW109A-041417		
SDG: 240-78035-1	LAB_ID	240-78206-6			240-78169-12			240-78169-11			240-78169-6		
FRACTION: OV	SAMP_DATE	4/17/2017			4/14/2017			4/14/2017			4/14/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW27C-041717											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.79	J	P
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.9	J	P	1.8	U		1.8	U		4.4	J	P
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		55		
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.91	J	P	0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW109B-041317			MRC-MW10A-041417			MRC-MW12B-041217			MRC-MW12C-041217		
SDG: 240-78035-1	LAB_ID	240-78169-2			240-78169-10			240-78035-2			240-78035-4		
FRACTION: OV	SAMP_DATE	4/13/2017			4/14/2017			4/12/2017			4/12/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.46	U		0.23	U		2.3	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.64	U		0.32	U		3.2	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.68	U		0.34	U		3.4	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.82	U		0.41	U		4.1	U		0.41	UJ	C
1,1-DICHLOROETHANE		0.5	U		0.25	U		9.9	J	P	0.25	U	
1,1-DICHLOROETHENE		0.54	U		0.27	U		76			0.27	U	
1,2,4-TRICHLOROBENZENE		0.54	U		0.27	U		4	J	P	0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.94	U		0.47	U		4.7	U		0.47	U	
1,2-DIBROMOETHANE		0.46	U		0.23	U		2.3	U		0.23	U	
1,2-DICHLOROBENZENE		0.52	U		0.26	U		2.6	U		0.26	U	
1,2-DICHLOROETHANE		0.6	U		0.3	U		3	U		0.3	U	
1,2-DICHLOROPROPANE		0.6	U		0.3	U		3	U		0.3	U	
1,3-DICHLOROBENZENE		0.64	U		0.32	U		3.2	U		0.32	U	
1,4-DICHLOROBENZENE		0.46	U		0.23	U		2.3	U		0.23	U	
2-BUTANONE		2	U		1	U		10	U		1	U	
2-HEXANONE		2.5	U		1.2	U		12	U		1.2	U	
4-METHYL-2-PENTANONE		1.4	U		0.71	U		7.1	U		0.71	U	
ACETONE		3.5	U		2.5	J	P	18	UJ	C	1.8	U	
BENZENE		34			0.28	U		2.8	U		0.28	U	
BROMODICHLOROMETHANE		0.6	U		0.3	U		3	U		0.3	U	
BROMOFORM		0.86	U		0.43	U		4.3	U		0.43	U	
BROMOMETHANE		0.84	U		0.42	U		4.2	U		0.42	U	
CARBON DISULFIDE		0.68	U		0.34	U		3.4	U		0.34	UJ	C
CARBON TETRACHLORIDE		0.7	U		0.35	U		3.5	U		0.35	U	
CHLOROBENZENE		0.64	U		0.32	U		3.2	U		0.32	U	
CHLORODIBROMOMETHANE		0.5	U		0.25	U		2.5	U		0.25	U	
CHLOROETHANE		0.82	U		0.41	U		4.1	U		0.41	U	
CHLOROFORM		0.62	U		0.31	U		3.1	U		0.31	U	
CHLOROMETHANE		0.86	U		0.43	U		4.3	U		0.43	U	
CIS-1,2-DICHLOROETHENE		74			0.3	U		170			0.3	U	
CIS-1,3-DICHLOROPROPENE		0.52	U		0.26	U		2.6	U		0.26	U	
CYCLOHEXANE		0.88	U		0.44	U		4.4	U		0.44	U	
DICHLORODIFLUOROMETHANE		1	U		0.5	U		5	U		0.5	U	
ETHYLBENZENE		0.52	U		0.26	U		2.6	U		0.26	U	
ISOPROPYLBENZENE		1.2	J	P	0.21	U		2.1	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW13A-041217			MRC-MW22B-041417			MRC-MW27A-041717			MRC-MW27B-041717		
SDG: 240-78035-1	LAB_ID	240-78035-3			240-78169-5			240-78206-2			240-78206-3		
FRACTION: OV	SAMP_DATE	4/12/2017			4/14/2017			4/17/2017			4/17/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C	0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.79	J	P	1.3			1.8			2		
1,1-DICHLOROETHENE		0.27	U		3.7			1.8			2.9		
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		5.5	J	P	2.3	J	P
BENZENE		0.28	U		0.28	U		1.2			0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	U		0.34	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		1			0.3	U		40			86		
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.72	J	P	0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	UJ	C	0.5	UJ	C
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW27C-041717			MRC-MW63A-041217			MRC-MW70A-041417			MRC-MW70B-041417		
SDG: 240-78035-1	LAB_ID	240-78206-4			240-78035-5			240-78169-8			240-78169-9		
FRACTION: OV	SAMP_DATE	4/17/2017			4/12/2017			4/14/2017			4/14/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	UJ	C	0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		3.4			0.35	J	P	1.4		
1,1-DICHLOROETHENE		0.27	U		1.9			0.27	U		1.9		
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.35	J	P	4.8			0.44	J	P	2.1		
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW80B-041417			MRC-MW93A-041417			TB-041217			TB-041317		
SDG: 240-78035-1	LAB_ID	240-78169-4			240-78169-7			240-78035-1			240-78169-1		
FRACTION: OV	SAMP_DATE	4/14/2017			4/14/2017			4/12/2017			4/13/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	UJ	C	0.41	U	
1,1-DICHLOROETHANE		1.2			0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		17			0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.34	J	P	0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	U		0.42	J	P	0.34	UJ	C	0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		1.8			1.4			0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	TB-041717		
SDG: 240-78035-1	LAB_ID	240-78206-1		
FRACTION: OV	SAMP_DATE	4/17/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U	
1,1-DICHLOROETHANE		0.25	U	
1,1-DICHLOROETHENE		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U	
1,2-DIBROMOETHANE		0.23	U	
1,2-DICHLOROBENZENE		0.26	U	
1,2-DICHLOROETHANE		0.3	U	
1,2-DICHLOROPROPANE		0.3	U	
1,3-DICHLOROBENZENE		0.32	U	
1,4-DICHLOROBENZENE		0.23	U	
2-BUTANONE		1	U	
2-HEXANONE		1.2	U	
4-METHYL-2-PENTANONE		0.71	U	
ACETONE		1.8	U	
BENZENE		0.28	U	
BROMODICHLOROMETHANE		0.3	U	
BROMOFORM		0.43	U	
BROMOMETHANE		0.42	U	
CARBON DISULFIDE		0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U	
CHLOROBENZENE		0.32	U	
CHLORODIBROMOMETHANE		0.25	U	
CHLOROETHANE		0.41	U	
CHLOROFORM		0.31	U	
CHLOROMETHANE		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U	
CYCLOHEXANE		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C
ETHYLBENZENE		0.26	U	
ISOPROPYLBENZENE		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-DUP10-041717			MRC-MW02A-041417			MRC-MW08A-041417			MRC-MW109A-041417		
SDG: 240-78035-1	LAB_ID	240-78206-6			240-78169-12			240-78169-11			240-78169-6		
FRACTION: OV	SAMP_DATE	4/17/2017			4/14/2017			4/14/2017			4/14/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW27C-041717											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.27	J	P
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		1.4		
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.67	J	P	0.33	U		0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		3.6			0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		20		

PROJ_NO: 07776	NSAMPLE	MRC-MW109B-041317			MRC-MW10A-041417			MRC-MW12B-041217			MRC-MW12C-041217		
SDG: 240-78035-1	LAB_ID	240-78169-2			240-78169-10			240-78035-2			240-78035-4		
FRACTION: OV	SAMP_DATE	4/13/2017			4/14/2017			4/12/2017			4/12/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		2.9	U		1.4	U		14	U		1.4	U	
METHYL CYCLOHEXANE		0.9	U		0.45	U		4.5	U		0.45	U	
METHYL TERT-BUTYL ETHER		4.1			0.27	U		2.7	U		0.27	U	
METHYLENE CHLORIDE		1.1	U		0.53	U		5.3	U		0.53	U	
STYRENE		0.46	U		0.23	U		2.3	U		0.23	U	
TETRACHLOROETHENE		0.6	U		0.3	U		3	U		0.3	U	
TOLUENE		0.46	U		0.23	U		2.3	U		0.23	U	
TOTAL XYLENES		2.3	J	P	0.24	U		2.4	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		6.6			0.29	U		2.9	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.62	U		0.31	U		3.1	U		0.31	U	
TRICHLOROETHENE		25			0.33	U		270			0.33	U	
TRICHLOROFLUOROMETHANE		1	U		0.5	U		5	U		0.5	U	
VINYL CHLORIDE		4.8			0.45	U		4.5	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW13A-041217			MRC-MW22B-041417			MRC-MW27A-041717			MRC-MW27B-041717		
SDG: 240-78035-1	LAB_ID	240-78035-3			240-78169-5			240-78206-2			240-78206-3		
FRACTION: OV	SAMP_DATE	4/12/2017			4/14/2017			4/17/2017			4/17/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		14			1.2		
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.31	J	P	0.63	J	P	0.57	J	P
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		2.7			1		
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		2			160			300		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		1.4			0.45	U		18			2.2		

PROJ_NO: 07776	NSAMPLE	MRC-MW27C-041717			MRC-MW63A-041217			MRC-MW70A-041417			MRC-MW70B-041417		
SDG: 240-78035-1	LAB_ID	240-78206-4			240-78035-5			240-78169-8			240-78169-9		
FRACTION: OV	SAMP_DATE	4/17/2017			4/12/2017			4/14/2017			4/14/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		3.8			0.33	U		3.9		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.87	J	P	0.45	U		3.5		

PROJ_NO: 07776	NSAMPLE	MRC-MW80B-041417			MRC-MW93A-041417			TB-041217			TB-041317		
SDG: 240-78035-1	LAB_ID	240-78169-4			240-78169-7			240-78035-1			240-78169-1		
FRACTION: OV	SAMP_DATE	4/14/2017			4/14/2017			4/12/2017			4/13/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		55			2.4			0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	TB-041717		
SDG: 240-78035-1	LAB_ID	240-78206-1		
FRACTION: OV	SAMP_DATE	4/17/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
METHYL ACETATE		1.4	U	
METHYL CYCLOHEXANE		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U	
METHYLENE CHLORIDE		0.53	U	
STYRENE		0.23	U	
TETRACHLOROETHENE		0.3	U	
TOLUENE		0.23	U	
TOTAL XYLENES		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U	
TRICHLOROETHENE		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U	
VINYL CHLORIDE		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-DUP09-041417			MRC-MW08A-041417			MRC-MW10A-041417			MRC-MW12B-041217		
SDG: 240-78035-1	LAB_ID	240-78169-13			240-78169-11			240-78169-10			240-78035-2		
FRACTION: OS	SAMP_DATE	4/14/2017			4/14/2017			4/14/2017			4/12/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW80A-041417											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.65			0.36			0.95			100		

PROJ_NO: 07776	NSAMPLE	MRC-MW12C-041217			MRC-MW13A-041217			MRC-MW22B-041417			MRC-MW27A-041717		
SDG: 240-78035-1	LAB_ID	240-78035-4			240-78035-3			240-78169-5			240-78206-2		
FRACTION: OS	SAMP_DATE	4/12/2017			4/12/2017			4/14/2017			4/17/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.057	U		3.1			8.5			0.78		

PROJ_NO: 07776	NSAMPLE	MRC-MW27B-041717			MRC-MW27C-041717			MRC-MW63A-041217			MRC-MW70A-041417		
SDG: 240-78035-1	LAB_ID	240-78206-3			240-78206-4			240-78035-5			240-78169-8		
FRACTION: OS	SAMP_DATE	4/17/2017			4/17/2017			4/12/2017			4/14/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		1.3			0.057	U		6.2			0.94		

PROJ_NO: 07776	NSAMPLE	MRC-MW70B-041417			MRC-MW80A-041417			MRC-MW80B-041417		
SDG: 240-78035-1	LAB_ID	240-78169-9			240-78169-3			240-78169-4		
FRACTION: OS	SAMP_DATE	4/14/2017			4/14/2017			4/14/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		5			0.67			14		

PROJ_NO: 07776	NSAMPLE	MRC-MW12B-041217			MRC-MW24A-041717			MRC-MW27A-041717			MRC-MW27B-041717		
SDG: 240-78035-1	LAB_ID	240-78035-2			240-78206-5			240-78206-2			240-78206-3		
FRACTION: OVG	SAMP_DATE	4/12/2017			4/17/2017			4/17/2017			4/17/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHANE		0.14	U		0.33	J	P	4.7			0.14	U	
ETHENE		0.27	J	P	0.13	U		1.8			0.13	U	
METHANE		32			120			750			0.44	J	P

PROJ_NO: 07776	NSAMPLE	MRC-MW12B-041217			MRC-MW12C-041217			MRC-MW24A-041717			MRC-MW27A-041717		
SDG: 240-78035-1	LAB_ID	240-78035-2			240-78035-4			240-78206-5			240-78206-2		
FRACTION: M	SAMP_DATE	4/12/2017			4/12/2017			4/17/2017			4/17/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.68	U	A	0.96	U	A						
ARSENIC		0.69	J	P	0.44	J	P						
BARIUM		140			8.5								
BERYLLIUM		0.4	U		0.48	U	A						
CADMIUM		0.31	U		0.31	U							
CALCIUM		9500						18000			20000		
CHROMIUM		0.3	J	P	1.1	J	P						
COBALT		38			5.6								
COPPER		0.36	U		2.2								
IRON		22000						65	J	P	130000		
LEAD		0.37	J	P	0.77	J	P						
MAGNESIUM		8000						37000			37000		
MANGANESE		3100						32000			43000		
MERCURY		0.13	U		0.13	U							
MOLYBDENUM		0.51	U		0.51	U							
NICKEL		56			7.7								
POTASSIUM		3000	J	P				3000	J	P	3400	J	P
SELENIUM		0.54	J	P	0.64	J	P						
SILICON DIOXIDE		11000						13000			12000		
SILVER		0.03	U		0.03	U							
SODIUM		16000						210000			350000		
THALLIUM		0.28	U		0.28	U							
VANADIUM		0.54	U		1	J	P						
ZINC		54			40								

PROJ_NO: 07776	NSAMPLE	MRC-MW27B-041717			MRC-MW70A-041417			MRC-MW70B-041417		
SDG: 240-78035-1	LAB_ID	240-78206-3			240-78169-8			240-78169-9		
FRACTION: M	SAMP_DATE	4/17/2017			4/14/2017			4/14/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY				0.27	U		0.28	U	A
ARSENIC				4.9	J	P	11		
BARIUM				110			160		
BERYLLIUM				0.4	U		0.68	U	A
CADMIUM				0.31	U		0.31	U	
CALCIUM	15000								
CHROMIUM				1.1	J	P	8.9		
COBALT				10			21		
COPPER				1.6	U	A	6.5		
IRON	1000								
LEAD				0.5	J	P	4.4		
MAGNESIUM	2600	J	P						
MANGANESE	100								
MERCURY				0.13	U		0.13	U	
MOLYBDENUM				0.51	U		0.54	J	P
NICKEL				6.9			66		
POTASSIUM	5400								
SELENIUM				0.48	U		0.48	U	
SILICON DIOXIDE	12000								
SILVER				0.03	U		0.047	U	A
SODIUM	110000								
THALLIUM				0.28	U		0.28	U	
VANADIUM				1.8	J	P	13		
ZINC				14	J	P	93		

PROJ_NO: 07776	NSAMPLE	MRC-MW12B-041217			MRC-MW24A-041717			MRC-MW27A-041717			MRC-MW27B-041717		
SDG: 240-78035-1	LAB_ID	240-78035-2			240-78206-5			240-78206-2			240-78206-3		
FRACTION: MISC	SAMP_DATE	4/12/2017			4/17/2017			4/17/2017			4/17/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY		52			1.9	U		36			24		
AMMONIA		0.87	U		0.87	U		2.5			0.87	U	
CHLORIDE		22			550			880			190		
DISSOLVED ORGANIC CARBON		0.67	J	P	0.69	J	P	1.5			2.7		
NITRATE-N		0.11			0.18	U		0.35	U		0.7	U	
NITRITE-N		0.038	U		0.19	U		0.38	U		0.76	U	
ORTHOPHOSPHATE-P		0.08	J	P	0.035	J	P	0.043	J	P	0.031	J	P
SULFATE		16			0.65	U		1.9	J	P	14	J	P
TOTAL DISSOLVED SOLIDS		130			980			1600			380		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-DUP10-041717 | Lab Sample ID: 240-78206-6

Matrix: Water | Lab File ID: UX963302.D

Analysis Method: 8260C | Date Collected: 04/17/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 02:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.9	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-DUP10-041717 | Lab Sample ID: 240-78206-6

Matrix: Water | Lab File ID: UX963302.D

Analysis Method: 8260C | Date Collected: 04/17/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 02:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.67	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW02A-041417 | Lab Sample ID: 240-78169-12

Matrix: Water | Lab File ID: U1256609.D

Analysis Method: 8260C | Date Collected: 04/14/2017 15:04

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 23:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.91	J	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW02A-041417 | Lab Sample ID: 240-78169-12

Matrix: Water | Lab File ID: U1256609.D

Analysis Method: 8260C | Date Collected: 04/14/2017 15:04

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 23:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	3.6		1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW08A-041417 | Lab Sample ID: 240-78169-11

Matrix: Water | Lab File ID: U1256608.D

Analysis Method: 8260C | Date Collected: 04/14/2017 14:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 22:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW08A-041417 | Lab Sample ID: 240-78169-11

Matrix: Water | Lab File ID: U1256608.D

Analysis Method: 8260C | Date Collected: 04/14/2017 14:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 22:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-120
1868-53-7	Dibromofluoromethane (Surr)	93		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW109A-041417 | Lab Sample ID: 240-78169-6

Matrix: Water | Lab File ID: U1256614.D

Analysis Method: 8260C | Date Collected: 04/14/2017 13:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/20/2017 01:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.79	J	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	4.4	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	55		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW109A-041417 | Lab Sample ID: 240-78169-6

Matrix: Water | Lab File ID: U1256614.D

Analysis Method: 8260C | Date Collected: 04/14/2017 13:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/20/2017 01:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.27	J	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	1.4		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	20		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW109B-041317 | Lab Sample ID: 240-78169-2

Matrix: Water | Lab File ID: U1256613.D

Analysis Method: 8260C | Date Collected: 04/13/2017 14:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/20/2017 01:02

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.46	U	2.0	0.46
79-34-5	1,1,2,2-Tetrachloroethane	0.64	U	2.0	0.64
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.82	U	2.0	0.82
79-00-5	1,1,2-Trichloroethane	0.68	U	2.0	0.68
75-34-3	1,1-Dichloroethane	0.50	U	2.0	0.50
75-35-4	1,1-Dichloroethene	0.54	U	2.0	0.54
120-82-1	1,2,4-Trichlorobenzene	0.54	U	2.0	0.54
96-12-8	1,2-Dibromo-3-Chloropropane	0.94	U	4.0	0.94
106-93-4	Ethylene Dibromide	0.46	U	2.0	0.46
95-50-1	1,2-Dichlorobenzene	0.52	U	2.0	0.52
107-06-2	1,2-Dichloroethane	0.60	U	2.0	0.60
78-87-5	1,2-Dichloropropane	0.60	U	2.0	0.60
541-73-1	1,3-Dichlorobenzene	0.64	U	2.0	0.64
106-46-7	1,4-Dichlorobenzene	0.46	U	2.0	0.46
78-93-3	2-Butanone (MEK)	2.0	U	20	2.0
591-78-6	2-Hexanone	2.5	U	20	2.5
108-10-1	4-Methyl-2-pentanone (MIBK)	1.4	U	20	1.4
67-64-1	Acetone	3.5	U F1	20	3.5
71-43-2	Benzene	34		2.0	0.56
75-27-4	Dichlorobromomethane	0.60	U	2.0	0.60
75-25-2	Bromoform	0.86	U	2.0	0.86
74-83-9	Bromomethane	0.84	U	2.0	0.84
75-15-0	Carbon disulfide	0.68	U	2.0	0.68
56-23-5	Carbon tetrachloride	0.70	U	2.0	0.70
108-90-7	Chlorobenzene	0.64	U	2.0	0.64
75-00-3	Chloroethane	0.82	U	2.0	0.82
67-66-3	Chloroform	0.62	U	2.0	0.62
74-87-3	Chloromethane	0.86	U	2.0	0.86
156-59-2	cis-1,2-Dichloroethene	74		2.0	0.60
10061-01-5	cis-1,3-Dichloropropene	0.52	U	2.0	0.52
110-82-7	Cyclohexane	0.88	U	2.0	0.88
124-48-1	Chlorodibromomethane	0.50	U	2.0	0.50
75-71-8	Dichlorodifluoromethane	1.0	U	2.0	1.0
100-41-4	Ethylbenzene	0.52	U	2.0	0.52
98-82-8	Isopropylbenzene	1.2	J	2.0	0.42

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW109B-041317 | Lab Sample ID: 240-78169-2

Matrix: Water | Lab File ID: U1256613.D

Analysis Method: 8260C | Date Collected: 04/13/2017 14:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/20/2017 01:02

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	2.9	U F2	20	2.9
1634-04-4	Methyl tert-butyl ether	4.1		2.0	0.54
108-87-2	Methylcyclohexane	0.90	U	2.0	0.90
75-09-2	Methylene Chloride	1.1	U	2.0	1.1
100-42-5	Styrene	0.46	U	2.0	0.46
127-18-4	Tetrachloroethene	0.60	U	2.0	0.60
108-88-3	Toluene	0.46	U	2.0	0.46
156-60-5	trans-1,2-Dichloroethene	6.6		2.0	0.58
10061-02-6	trans-1,3-Dichloropropene	0.62	U	2.0	0.62
79-01-6	Trichloroethene	25		2.0	0.66
75-69-4	Trichlorofluoromethane	1.0	U	2.0	1.0
75-01-4	Vinyl chloride	4.8		2.0	0.90
1330-20-7	Xylenes, Total	2.3	J	4.0	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW10A-041417 | Lab Sample ID: 240-78169-10

Matrix: Water | Lab File ID: U1256607.D

Analysis Method: 8260C | Date Collected: 04/14/2017 13:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 22:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.5	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW10A-041417 | Lab Sample ID: 240-78169-10

Matrix: Water | Lab File ID: U1256607.D

Analysis Method: 8260C | Date Collected: 04/14/2017 13:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 22:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW12B-041217 | Lab Sample ID: 240-78035-2

Matrix: Water | Lab File ID: UXM1768.D

Analysis Method: 8260C | Date Collected: 04/12/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2017 12:48

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275134 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.3	U	10	2.3
79-34-5	1,1,2,2-Tetrachloroethane	3.2	U	10	3.2
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	4.1	U	10	4.1
79-00-5	1,1,2-Trichloroethane	3.4	U	10	3.4
75-34-3	1,1-Dichloroethane	9.9	J	10	2.5
75-35-4	1,1-Dichloroethene	76		10	2.7
120-82-1	1,2,4-Trichlorobenzene	4.0	J	10	2.7
96-12-8	1,2-Dibromo-3-Chloropropane	4.7	U	20	4.7
106-93-4	Ethylene Dibromide	2.3	U	10	2.3
95-50-1	1,2-Dichlorobenzene	2.6	U	10	2.6
107-06-2	1,2-Dichloroethane	3.0	U	10	3.0
78-87-5	1,2-Dichloropropane	3.0	U	10	3.0
541-73-1	1,3-Dichlorobenzene	3.2	U	10	3.2
106-46-7	1,4-Dichlorobenzene	2.3	U	10	2.3
78-93-3	2-Butanone (MEK)	10	U	100	10
591-78-6	2-Hexanone	12	U	100	12
108-10-1	4-Methyl-2-pentanone (MIBK)	7.1	U	100	7.1
67-64-1	Acetone	18	U	100	18
71-43-2	Benzene	2.8	U	10	2.8
75-27-4	Dichlorobromomethane	3.0	U	10	3.0
75-25-2	Bromoform	4.3	U	10	4.3
74-83-9	Bromomethane	4.2	U	10	4.2
75-15-0	Carbon disulfide	3.4	U	10	3.4
56-23-5	Carbon tetrachloride	3.5	U	10	3.5
108-90-7	Chlorobenzene	3.2	U	10	3.2
75-00-3	Chloroethane	4.1	U	10	4.1
67-66-3	Chloroform	3.1	U	10	3.1
74-87-3	Chloromethane	4.3	U	10	4.3
156-59-2	cis-1,2-Dichloroethene	170		10	3.0
10061-01-5	cis-1,3-Dichloropropene	2.6	U	10	2.6
110-82-7	Cyclohexane	4.4	U	10	4.4
124-48-1	Chlorodibromomethane	2.5	U	10	2.5
75-71-8	Dichlorodifluoromethane	5.0	U	10	5.0
100-41-4	Ethylbenzene	2.6	U	10	2.6
98-82-8	Isopropylbenzene	2.1	U	10	2.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW12B-041217 | Lab Sample ID: 240-78035-2

Matrix: Water | Lab File ID: UXM1768.D

Analysis Method: 8260C | Date Collected: 04/12/2017 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2017 12:48

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275134 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	14	U	100	14
1634-04-4	Methyl tert-butyl ether	2.7	U	10	2.7
108-87-2	Methylcyclohexane	4.5	U	10	4.5
75-09-2	Methylene Chloride	5.3	U	10	5.3
100-42-5	Styrene	2.3	U	10	2.3
127-18-4	Tetrachloroethene	3.0	U	10	3.0
108-88-3	Toluene	2.3	U	10	2.3
156-60-5	trans-1,2-Dichloroethene	2.9	U	10	2.9
10061-02-6	trans-1,3-Dichloropropene	3.1	U	10	3.1
79-01-6	Trichloroethene	270		10	3.3
75-69-4	Trichlorofluoromethane	5.0	U	10	5.0
75-01-4	Vinyl chloride	4.5	U	10	4.5
1330-20-7	Xylenes, Total	2.4	U	20	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	99		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW12C-041217 | Lab Sample ID: 240-78035-4

Matrix: Water | Lab File ID: UX963203.D

Analysis Method: 8260C | Date Collected: 04/12/2017 13:49

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 18:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW12C-041217 | Lab Sample ID: 240-78035-4

Matrix: Water | Lab File ID: UX963203.D

Analysis Method: 8260C | Date Collected: 04/12/2017 13:49

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 18:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	88		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW13A-041217 | Lab Sample ID: 240-78035-3

Matrix: Water | Lab File ID: UX963202.D

Analysis Method: 8260C | Date Collected: 04/12/2017 12:26

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 17:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.79	J	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.0		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW13A-041217 | Lab Sample ID: 240-78035-3

Matrix: Water | Lab File ID: UX963202.D

Analysis Method: 8260C | Date Collected: 04/12/2017 12:26

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 17:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	1.4		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	93		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW22B-041417 | Lab Sample ID: 240-78169-5

Matrix: Water | Lab File ID: U1256602.D

Analysis Method: 8260C | Date Collected: 04/14/2017 13:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 20:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	1.3		1.0	0.25
75-35-4	1,1-Dichloroethene	3.7		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW22B-041417 | Lab Sample ID: 240-78169-5

Matrix: Water | Lab File ID: U1256602.D

Analysis Method: 8260C | Date Collected: 04/14/2017 13:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 20:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.31	J	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	2.0		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	92		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27A-041717 | Lab Sample ID: 240-78206-2

Matrix: Water | Lab File ID: UX963299.D

Analysis Method: 8260C | Date Collected: 04/17/2017 08:36

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 00:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	1.8		1.0	0.25
75-35-4	1,1-Dichloroethene	1.8		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	5.5	J	10	1.8
71-43-2	Benzene	1.2		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	40		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.72	J	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27A-041717 | Lab Sample ID: 240-78206-2

Matrix: Water | Lab File ID: UX963299.D

Analysis Method: 8260C | Date Collected: 04/17/2017 08:36

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 00:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	14		1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.63	J	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	2.7		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	18		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27A-041717 | Lab Sample ID: 240-78206-2

Matrix: Water | Lab File ID: UX963317.D

Analysis Method: 8260C | Date Collected: 04/17/2017 08:36

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 15:22

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275664 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	160		4.0	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27B-041717 | Lab Sample ID: 240-78206-3

Matrix: Water | Lab File ID: UX963300.D

Analysis Method: 8260C | Date Collected: 04/17/2017 10:36

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 01:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	2.0		1.0	0.25
75-35-4	1,1-Dichloroethene	2.9		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.3	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
79-20-9	Methyl acetate	1.4	U	10	1.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27B-041717 | Lab Sample ID: 240-78206-3

Matrix: Water | Lab File ID: UX963300.D

Analysis Method: 8260C | Date Collected: 04/17/2017 10:36

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 01:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	1.2		1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.57	J	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	1.0		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	2.2		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27B-041717 | Lab Sample ID: 240-78206-3

Matrix: Water | Lab File ID: UX963318.D

Analysis Method: 8260C | Date Collected: 04/17/2017 10:36

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 15:46

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275664 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-59-2	cis-1,2-Dichloroethene	86		10	3.0
79-01-6	Trichloroethene	300		10	3.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27C-041717 | Lab Sample ID: 240-78206-4

Matrix: Water | Lab File ID: UX963301.D

Analysis Method: 8260C | Date Collected: 04/17/2017 11:49

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 02:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.35	J	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27C-041717 | Lab Sample ID: 240-78206-4

Matrix: Water | Lab File ID: UX963301.D

Analysis Method: 8260C | Date Collected: 04/17/2017 11:49

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 02:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27C-041717 | Lab Sample ID: 240-78206-4

Matrix: Water | Lab File ID: UX963316.D

Analysis Method: 8260C | Date Collected: 04/17/2017 11:49

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 14:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275664 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.33	U	1.0	0.33

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-120
1868-53-7	Dibromofluoromethane (Surr)	94		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW63A-041217 | Lab Sample ID: 240-78035-5

Matrix: Water | Lab File ID: UX963204.D

Analysis Method: 8260C | Date Collected: 04/12/2017 15:14

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 18:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	3.4		1.0	0.25
75-35-4	1,1-Dichloroethene	1.9		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	4.8		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW63A-041217 | Lab Sample ID: 240-78035-5

Matrix: Water | Lab File ID: UX963204.D

Analysis Method: 8260C | Date Collected: 04/12/2017 15:14

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 18:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	3.8		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.87	J	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW70A-041417 | Lab Sample ID: 240-78169-8

Matrix: Water | Lab File ID: U1256605.D

Analysis Method: 8260C | Date Collected: 04/14/2017 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 21:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.35	J	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.44	J	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW70A-041417 | Lab Sample ID: 240-78169-8

Matrix: Water | Lab File ID: U1256605.D

Analysis Method: 8260C | Date Collected: 04/14/2017 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 21:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	93		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW70B-041417 | Lab Sample ID: 240-78169-9

Matrix: Water | Lab File ID: U1256606.D

Analysis Method: 8260C | Date Collected: 04/14/2017 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 22:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	1.4		1.0	0.25
75-35-4	1,1-Dichloroethene	1.9		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	2.1		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW70B-041417 | Lab Sample ID: 240-78169-9

Matrix: Water | Lab File ID: U1256606.D

Analysis Method: 8260C | Date Collected: 04/14/2017 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 22:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	3.9		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	3.5		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	94		69-124
460-00-4	4-Bromofluorobenzene (Surr)	98		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW80B-041417 | Lab Sample ID: 240-78169-4

Matrix: Water | Lab File ID: U1256601.D

Analysis Method: 8260C | Date Collected: 04/14/2017 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 20:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	1.2		1.0	0.25
75-35-4	1,1-Dichloroethene	17		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.34	J	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.8		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW80B-041417 | Lab Sample ID: 240-78169-4

Matrix: Water | Lab File ID: U1256601.D

Analysis Method: 8260C | Date Collected: 04/14/2017 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 20:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	55		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	94		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW93A-041417 | Lab Sample ID: 240-78169-7

Matrix: Water | Lab File ID: U1256604.D

Analysis Method: 8260C | Date Collected: 04/14/2017 14:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 21:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.42	J	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.4		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW93A-041417 | Lab Sample ID: 240-78169-7

Matrix: Water | Lab File ID: U1256604.D

Analysis Method: 8260C | Date Collected: 04/14/2017 14:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 21:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	2.4		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-120
1868-53-7	Dibromofluoromethane (Surr)	94		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: TB-041217 | Lab Sample ID: 240-78035-1

Matrix: Water | Lab File ID: UX963200.D

Analysis Method: 8260C | Date Collected: 04/12/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 17:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: TB-041217 | Lab Sample ID: 240-78035-1

Matrix: Water | Lab File ID: UX963200.D

Analysis Method: 8260C | Date Collected: 04/12/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 17:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: TB-041317 | Lab Sample ID: 240-78169-1

Matrix: Water | Lab File ID: U1256599.D

Analysis Method: 8260C | Date Collected: 04/13/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 19:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: TB-041317 | Lab Sample ID: 240-78169-1

Matrix: Water | Lab File ID: U1256599.D

Analysis Method: 8260C | Date Collected: 04/13/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 19:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: TB-041717 | Lab Sample ID: 240-78206-1

Matrix: Water | Lab File ID: UX963298.D

Analysis Method: 8260C | Date Collected: 04/17/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/20/2017 23:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: TB-041717 | Lab Sample ID: 240-78206-1

Matrix: Water | Lab File ID: UX963298.D

Analysis Method: 8260C | Date Collected: 04/17/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/20/2017 23:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-120
1868-53-7	Dibromofluoromethane (Surr)	100		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-DUP09-041417 | Lab Sample ID: 240-78169-13

Matrix: Water | Lab File ID: Z24866_20.D

Analysis Method: 522 | Date Collected: 04/14/2017 00:00

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 13:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.65		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	72		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW08A-041417 | Lab Sample ID: 240-78169-11

Matrix: Water | Lab File ID: Z24866_19.D

Analysis Method: 522 | Date Collected: 04/14/2017 14:40

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 12:58

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	82		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW10A-041417 | Lab Sample ID: 240-78169-10

Matrix: Water | Lab File ID: Z24866_18.D

Analysis Method: 522 | Date Collected: 04/14/2017 13:45

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 12:42

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.95		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	91		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW12B-041217 | Lab Sample ID: 240-78035-2

Matrix: Water | Lab File ID: Z24866_17.D

Analysis Method: 522 | Date Collected: 04/12/2017 10:35

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 12:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 10

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	100		2.0	0.57

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	88		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW12C-041217 | Lab Sample ID: 240-78035-4

Matrix: Water | Lab File ID: Z24866_09.D

Analysis Method: 522 | Date Collected: 04/12/2017 13:49

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 10:16

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	76		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW13A-041217 | Lab Sample ID: 240-78035-3

Matrix: Water | Lab File ID: Z24866_06.D

Analysis Method: 522 | Date Collected: 04/12/2017 12:26

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 09:28

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.1	F1	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	99		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW22B-041417 | Lab Sample ID: 240-78169-5

Matrix: Water | Lab File ID: Z24866_13.D

Analysis Method: 522 | Date Collected: 04/14/2017 13:20

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 11:21

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	8.5		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	84		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27A-041717 | Lab Sample ID: 240-78206-2

Matrix: Water | Lab File ID: Z24865_20.D

Analysis Method: 522 | Date Collected: 04/17/2017 08:36

Extract. Method: 3535A | Date Extracted: 04/22/2017 13:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/25/2017 20:21

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116110 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.78		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	99		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27B-041717 | Lab Sample ID: 240-78206-3

Matrix: Water | Lab File ID: Z24865_23.D

Analysis Method: 522 | Date Collected: 04/17/2017 10:36

Extract. Method: 3535A | Date Extracted: 04/22/2017 13:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/25/2017 21:09

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116110 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.3		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	81		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27C-041717 | Lab Sample ID: 240-78206-4

Matrix: Water | Lab File ID: Z24865_24.D

Analysis Method: 522 | Date Collected: 04/17/2017 11:49

Extract. Method: 3535A | Date Extracted: 04/22/2017 13:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/25/2017 21:25

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116110 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	84		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW63A-041217 | Lab Sample ID: 240-78035-5

Matrix: Water | Lab File ID: Z24866_10.D

Analysis Method: 522 | Date Collected: 04/12/2017 15:14

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 10:32

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	6.2		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	85		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW70A-041417 | Lab Sample ID: 240-78169-8

Matrix: Water | Lab File ID: Z24866_15.D

Analysis Method: 522 | Date Collected: 04/14/2017 09:30

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 11:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.94		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	94		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW70B-041417 | Lab Sample ID: 240-78169-9

Matrix: Water | Lab File ID: Z24866_16.D

Analysis Method: 522 | Date Collected: 04/14/2017 11:15

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 12:09

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	5.0		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	80		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW80A-041417 | Lab Sample ID: 240-78169-3

Matrix: Water | Lab File ID: Z24866_11.D

Analysis Method: 522 | Date Collected: 04/14/2017 09:40

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 10:48

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.67		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	80		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW80B-041417 | Lab Sample ID: 240-78169-4

Matrix: Water | Lab File ID: Z24866_12.D

Analysis Method: 522 | Date Collected: 04/14/2017 11:35

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 11:04

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	14		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	88		46-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW12B-041217 | Lab Sample ID: 240-78035-2

Matrix: Water | Lab File ID: RSK0425019.D

Analysis Method: RSK-175 | Date Collected: 04/12/2017 10:35

Sample wt/vol: 33(mL) | Date Analyzed: 04/25/2017 20:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276154 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	32		0.50	0.080
74-84-0	Ethane	0.14	U	0.50	0.14
74-85-1	Ethylene	0.27	J	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	79		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW24A-041717 Lab Sample ID: 240-78206-5

Matrix: Water Lab File ID: RSK0501034.D

Analysis Method: RSK-175 Date Collected: 04/17/2017 14:33

Sample wt/vol: 33(mL) Date Analyzed: 05/01/2017 23:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 277025 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	120		0.50	0.080
74-84-0	Ethane	0.33	J	0.50	0.14
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	84		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27A-041717 | Lab Sample ID: 240-78206-2

Matrix: Water | Lab File ID: RSK0428006.D

Analysis Method: RSK-175 | Date Collected: 04/17/2017 08:36

Sample wt/vol: 33(mL) | Date Analyzed: 04/28/2017 13:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	750		0.50	0.080
74-84-0	Ethane	4.7		0.50	0.14
74-85-1	Ethylene	1.8		0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	91		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27B-041717 | Lab Sample ID: 240-78206-3

Matrix: Water | Lab File ID: RSK0428007.D

Analysis Method: RSK-175 | Date Collected: 04/17/2017 10:36

Sample wt/vol: 33(mL) | Date Analyzed: 04/28/2017 13:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.44	J	0.50	0.080
74-84-0	Ethane	0.14	U	0.50	0.14
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	90		76-121

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW12B-041217 Lab Sample ID: 240-78035-2

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/12/2017 10:35

Reporting Basis: WET Date Received: 04/13/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW12B-041217 Lab Sample ID: 240-78035-2

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/12/2017 10:35

Reporting Basis: WET Date Received: 04/13/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	9500	5000	710	ug/L			1	6010C
7440-09-7	Potassium	3000	5000	70	ug/L	J		1	6010C
7439-95-4	Magnesium	8000	5000	230	ug/L			1	6010C
7440-23-5	Sodium	16000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	11000	1100	140	ug/L			1	6010C
7440-36-0	Antimony	0.68	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	0.69	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	140	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	38	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.30	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.36	2.0	0.36	ug/L	U		1	6020A
7439-89-6	Iron	22000	100	5.3	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7439-96-5	Manganese	3100	5.0	0.25	ug/L		B	1	6020A
7440-02-0	Nickel	56	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.37	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.54	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	54	20	6.2	ug/L		B	1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW12C-041217 Lab Sample ID: 240-78035-4

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/12/2017 13:49

Reporting Basis: WET Date Received: 04/13/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW12C-041217 Lab Sample ID: 240-78035-4

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/12/2017 13:49

Reporting Basis: WET Date Received: 04/13/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.96	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	0.44	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	8.5	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.48	1.0	0.40	ug/L	J		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	5.6	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	1.1	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	2.2	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	7.7	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.77	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.64	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	1.0	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	40	20	6.2	ug/L		B	1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW24A-041717 Lab Sample ID: 240-78206-5

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2017 14:33

Reporting Basis: WET Date Received: 04/18/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	18000	5000	710	ug/L			1	6010C
7440-09-7	Potassium	3000	5000	70	ug/L	J		1	6010C
7439-95-4	Magnesium	37000	5000	230	ug/L			1	6010C
7440-23-5	Sodium	210000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	13000	1100	140	ug/L			1	6010C
7439-89-6	Iron	65	100	25	ug/L	J		1	6010C
7439-96-5	Manganese	32000	75	26	ug/L			5	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW27A-041717 Lab Sample ID: 240-78206-2

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2017 08:36

Reporting Basis: WET Date Received: 04/18/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	20000	5000	710	ug/L			1	6010C
7440-09-7	Potassium	3400	5000	70	ug/L	J		1	6010C
7439-95-4	Magnesium	37000	5000	230	ug/L			1	6010C
7440-23-5	Sodium	350000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	12000	1100	140	ug/L			1	6010C
7439-89-6	Iron	130000	100	25	ug/L			1	6010C
7439-96-5	Manganese	43000	75	26	ug/L			5	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW27B-041717 Lab Sample ID: 240-78206-3

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2017 10:36

Reporting Basis: WET Date Received: 04/18/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	15000	5000	710	ug/L			1	6010C
7440-09-7	Potassium	5400	5000	70	ug/L			1	6010C
7439-95-4	Magnesium	2600	5000	230	ug/L	J		1	6010C
7440-23-5	Sodium	110000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	12000	1100	140	ug/L			1	6010C
7439-89-6	Iron	1000	100	25	ug/L			1	6010C
7439-96-5	Manganese	100	15	5.1	ug/L			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW70A-041417 Lab Sample ID: 240-78169-8

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2017 09:30

Reporting Basis: WET Date Received: 04/15/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW70A-041417 Lab Sample ID: 240-78169-8

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2017 09:30

Reporting Basis: WET Date Received: 04/15/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.27	ug/L	U		1	6020A
7440-38-2	Arsenic	4.9	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	110	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	10	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	1.1	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	1.6	2.0	0.36	ug/L	J	B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	6.9	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.50	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	1.8	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	14	20	6.2	ug/L	J		1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW70B-041417 Lab Sample ID: 240-78169-9

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2017 11:15

Reporting Basis: WET Date Received: 04/15/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW70B-041417 Lab Sample ID: 240-78169-9

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/14/2017 11:15

Reporting Basis: WET Date Received: 04/15/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.28	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	11	5.0	0.35	ug/L			1	6020A
7440-39-3	Barium	160	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.68	1.0	0.40	ug/L	J		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	21	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	8.9	2.0	0.26	ug/L			1	6020A
7440-50-8	Copper	6.5	2.0	0.36	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.54	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	66	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	4.4	1.0	0.16	ug/L			1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	13	5.0	0.54	ug/L			1	6020A
7440-66-6	Zinc	93	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.047	1.0	0.030	ug/L	J		1	6020A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW12B-041217 Lab Sample ID: 240-78035-2

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/12/2017 10:35

Reporting Basis: WET Date Received: 04/13/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	52	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	22	1.0	0.41	mg/L			1	300.0
14797-65-0	Nitrite as N	0.038	0.10	0.038	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.11	0.10	0.035	mg/L			1	300.0
14808-79-8	Sulfate	16	1.0	0.13	mg/L			1	300.0
	Orthophosphate as P	0.080	0.10	0.0050	mg/L	J		1	4500 P E-1999
	Total Dissolved Solids	130	10	7.4	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW12B-041217 Lab Sample ID: 240-78035-2

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/12/2017 10:35

Reporting Basis: WET Date Received: 04/13/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	0.67	1.0	0.080	mg/L	J		1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW24A-041717 Lab Sample ID: 240-78206-5

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2017 14:33

Reporting Basis: WET Date Received: 04/18/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	1.9	5.0	1.9	mg/L	U		1	2320B-1997
16887-00-6	Chloride	550	5.0	2.0	mg/L			5	300.0
14797-65-0	Nitrite as N	0.19	0.50	0.19	mg/L	U		5	300.0
14797-55-8	Nitrate as N	0.18	0.50	0.18	mg/L	U		5	300.0
14808-79-8	Sulfate	0.65	5.0	0.65	mg/L	U		5	300.0
	Orthophosphate as P	0.035	0.10	0.0050	mg/L	J		1	4500 P E-1999
	Total Dissolved Solids	980	20	15	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW24A-041717 Lab Sample ID: 240-78206-5

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2017 14:33

Reporting Basis: WET Date Received: 04/18/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	0.69	1.0	0.080	mg/L	J		1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW27A-041717 Lab Sample ID: 240-78206-2

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2017 08:36

Reporting Basis: WET Date Received: 04/18/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	2.5	2.0	0.87	mg/L			1	4500 NH3 C-1997
	Alkalinity	36	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	880	10	4.1	mg/L			10	300.0
14797-65-0	Nitrite as N	0.38	1.0	0.38	mg/L	U		10	300.0
14797-55-8	Nitrate as N	0.35	1.0	0.35	mg/L	U		10	300.0
14808-79-8	Sulfate	1.9	10	1.3	mg/L	J		10	300.0
	Orthophosphate as P	0.043	0.10	0.0050	mg/L	J		1	4500 P E-1999
	Total Dissolved Solids	1600	40	30	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW27A-041717 Lab Sample ID: 240-78206-2

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2017 08:36

Reporting Basis: WET Date Received: 04/18/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	1.5	1.0	0.080	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW27B-041717 Lab Sample ID: 240-78206-3

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2017 10:36

Reporting Basis: WET Date Received: 04/18/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	24	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	190	20	8.1	mg/L			20	300.0
14797-65-0	Nitrite as N	0.76	2.0	0.76	mg/L	U		20	300.0
14797-55-8	Nitrate as N	0.70	2.0	0.70	mg/L	U		20	300.0
14808-79-8	Sulfate	14	20	2.6	mg/L	J		20	300.0
	Orthophosphate as P	0.031	0.10	0.0050	mg/L	J		1	4500 P E-1999
	Total Dissolved Solids	380	50	37	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW27B-041717 Lab Sample ID: 240-78206-3

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2017 10:36

Reporting Basis: WET Date Received: 04/18/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.7	1.0	0.080	mg/L			1	9060

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-78035-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 522_1.4 Dioxane analysis was performed at TestAmerica Burlington Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 4/13/2017 9:40 AM, 4/15/2017 9:30 AM and 4/18/2017 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.1º C, 1.9º C and 2.9º C.

1,4-DIOXANE
Samples MRC-MW12B-041217 (240-78035-2), MRC-MW27A-041717 (240-78206-2), MRC-MW13A-041217 (240-78035-3), MRC-MW80A-041417 (240-78169-3), MRC-MW27B-041717 (240-78206-3), MRC-MW12C-041217 (240-78035-4), MRC-MW80B-041417 (240-78169-4), MRC-MW27C-041717 (240-78206-4), MRC-MW63A-041217 (240-78035-5), MRC-MW22B-041417 (240-78169-5), MRC-MW70A-041417 (240-78169-8), MRC-MW70B-041417 (240-78169-9), MRC-MW10A-041417 (240-78169-10), MRC-MW08A-041417 (240-78169-11) and MRC-DUP09-041417 (240-78169-13) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 04/22/2017 and 04/24/2017 and analyzed on 04/25/2017 and 04/26/2017.

Sample MRC-MW12B-041217 (240-78206-2)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 200-116072 and analytical batch 200-116119 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples TB-041217 (240-78035-1), TB-041317 (240-78169-1), TB-041717 (240-78206-1), MRC-MW12B-041217 (240-78035-2), MRC-MW109B-041317 (240-78169-2), MRC-MW27A-041717 (240-78206-2), MRC-MW13A-041217 (240-78035-3), MRC-MW27B-041717 (240-78206-3), MRC-MW12C-041217 (240-78035-4), MRC-MW80B-041417 (240-78169-4), MRC-MW27C-041717 (240-78206-4), MRC-MW63A-041217 (240-78035-5), MRC-MW22B-041417 (240-78169-5), MRC-MW109A-041417 (240-78169-6), MRC-DUP10-041717 (240-78206-6), MRC-MW93A-041417 (240-78169-7), MRC-MW70A-041417 (240-78169-8), MRC-MW70B-041417 (240-78169-9), MRC-MW10A-041417 (240-78169-10), MRC-MW08A-041417 (240-78169-11) and MRC-MW02A-041417 (240-78169-12) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/17/2017, 04/18/2017, 04/19/2017, 04/20/2017 and 04/21/2017.

Methylene Chloride was detected in method blank MB 240-274915/8 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the

MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-275600/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-275664/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MRC-MW12B-041217 (240-78206-2)[10X], MRC-MW109B-041317 (240-78206-2)[2X], MRC-MW27A-041717 (240-78206-2) [4X] and MRC-MW27B-041717 (240-78206-3)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 240-274915 was outside the method criteria for the following analytes: Carbon disulfide and 1,1,2-Trichloro-1,2,2-trifluoroethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated. TB-041217 (240-78035-1), MRC-MW13A-041217 (240-78035-3), MRC-MW12C-041217 (240-78035-4), MRC-MW63A-041217 (240-78035-5) and (CCVIS 240-274915/3)

The continuing calibration verification (CCV) analyzed in batch 240-275600 was outside the method criteria for the following analytes: carbon disulfide, and difluorodichloromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

There was an MS/MSD analyzed in batch 274915 but could not be reported because the associated sample needed reanalyzed in a different batch. TB-041217 (240-78035-1), MRC-MW13A-041217 (240-78035-3), MRC-MW12C-041217 (240-78035-4) and MRC-MW63A-041217 (240-78035-5).

The MSD for batch 275600 was analyzed outside of the tune time, due to an instrument fault. This is a batch QC sample; therefore, the data have been reported.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-275664.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED GASES

Samples MRC-MW12B-041217 (240-78035-2), MRC-MW27A-041717 (240-78206-2), MRC-MW27B-041717 (240-78206-3) and MRC-MW24A-041717 (240-78206-5) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 04/25/2017, 04/28/2017 and 05/01/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)

Samples MRC-MW12B-041217 (240-78035-2), MRC-MW27A-041717 (240-78206-2), MRC-MW27B-041717 (240-78206-3) and MRC-MW24A-041717 (240-78206-5) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/14/2017 and 04/19/2017 and analyzed on 04/17/2017, 04/20/2017 and 04/21/2017.

Samples MRC-MW27A-041717 (240-78206-2)[5X] and MRC-MW24A-041717 (240-78206-5)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)

Samples MRC-MW12B-041217 (240-78035-2), MRC-MW12C-041217 (240-78035-4), MRC-MW70A-041417 (240-78169-8) and MRC-MW70B-041417 (240-78169-9) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 04/14/2017 and 04/17/2017 and analyzed on 04/17/2017 and 04/18/2017.

Barium, Copper, Iron, Manganese and Zinc were detected in method blank MB 240-274741/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Barium, Copper, Iron and Manganese were detected in method blank MB 240-274962/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY
Samples MRC-MW12B-041217 (240-78035-2), MRC-MW12C-041217 (240-78035-4), MRC-MW70A-041417 (240-78169-8) and MRC-MW70B-041417 (240-78169-9) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/14/2017 and 04/17/2017 and analyzed on 04/17/2017 and 04/18/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY
Samples MRC-MW12B-041217 (240-78035-2), MRC-MW27A-041717 (240-78206-2), MRC-MW27B-041717 (240-78206-3) and MRC-MW24A-041717 (240-78206-5) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 04/20/2017 and 04/24/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS
Samples MRC-MW12B-041217 (240-78035-2), MRC-MW27A-041717 (240-78206-2), MRC-MW27B-041717 (240-78206-3) and MRC-MW24A-041717 (240-78206-5) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 04/18/2017 and 04/20/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS
Samples MRC-MW12B-041217 (240-78035-2), MRC-MW27A-041717 (240-78206-2), MRC-MW27B-041717 (240-78206-3) and MRC-MW24A-041717 (240-78206-5) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/13/2017 and 04/19/2017.

Samples MRC-MW27A-041717 (240-78206-2)[10X], MRC-MW27B-041717 (240-78206-3)[20X] and MRC-MW24A-041717 (240-78206-5) [5X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS
Samples MRC-MW12B-041217 (240-78035-2), MRC-MW27A-041717 (240-78206-2), MRC-MW27B-041717 (240-78206-3) and MRC-MW24A-041717 (240-78206-5) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/13/2017 and 04/19/2017.

Samples MRC-MW27A-041717 (240-78206-2)[10X], MRC-MW27B-041717 (240-78206-3)[20X] and MRC-MW24A-041717 (240-78206-5) [5X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ORTHOPHOSPHATE AS P
Samples MRC-MW12B-041217 (240-78035-2), MRC-MW27A-041717 (240-78206-2), MRC-MW27B-041717 (240-78206-3) and MRC-MW24A-041717 (240-78206-5) were analyzed for orthophosphate as P in accordance with SM 4500 P E. The samples were analyzed on 04/13/2017 and 04/18/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED ORGANIC CARBON
Samples MRC-MW12B-041217 (240-78035-2), MRC-MW27A-041717 (240-78206-2), MRC-MW27B-041717 (240-78206-3) and MRC-MW24A-041717 (240-78206-5) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 04/17/2017 and 04/26/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA TITRATION
Samples MRC-MW12B-041217 (240-78035-2), MRC-MW27A-041717 (240-78206-2), MRC-MW27B-041717 (240-78206-3) and MRC-MW24A-041717 (240-78206-5) were analyzed for Ammonia Titration in accordance with Standard Methods 4500 NH3-C. The samples were prepared and analyzed on 04/24/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-78035-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
4500 NH3 C-1997	Ammonia	SM	TAL CAN
4500 P E-1999	Orthophosphate	SM	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-78035-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-78035-1	TB-041217	Water	04/12/17 00:00	04/13/17 09:40
240-78035-2	MRC-MW12B-041217	Water	04/12/17 10:35	04/13/17 09:40
240-78035-3	MRC-MW13A-041217	Water	04/12/17 12:26	04/13/17 09:40
240-78035-4	MRC-MW12C-041217	Water	04/12/17 13:49	04/13/17 09:40
240-78035-5	MRC-MW63A-041217	Water	04/12/17 15:14	04/13/17 09:40
240-78169-1	TB-041317	Water	04/13/17 00:00	04/15/17 09:30
240-78169-2	MRC-MW109B-041317	Water	04/13/17 14:45	04/15/17 09:30
240-78169-3	MRC-MW80A-041417	Water	04/14/17 09:40	04/15/17 09:30
240-78169-4	MRC-MW80B-041417	Water	04/14/17 11:35	04/15/17 09:30
240-78169-5	MRC-MW22B-041417	Water	04/14/17 13:20	04/15/17 09:30
240-78169-6	MRC-MW109A-041417	Water	04/14/17 13:45	04/15/17 09:30
240-78169-7	MRC-MW93A-041417	Water	04/14/17 14:00	04/15/17 09:30
240-78169-8	MRC-MW70A-041417	Water	04/14/17 09:30	04/15/17 09:30
240-78169-9	MRC-MW70B-041417	Water	04/14/17 11:15	04/15/17 09:30
240-78169-10	MRC-MW10A-041417	Water	04/14/17 13:45	04/15/17 09:30
240-78169-11	MRC-MW08A-041417	Water	04/14/17 14:40	04/15/17 09:30
240-78169-12	MRC-MW02A-041417	Water	04/14/17 15:04	04/15/17 09:30
240-78169-13	MRC-DUP09-041417	Water	04/14/17 00:00	04/15/17 09:30
240-78206-1	TB-041717	Water	04/17/17 00:00	04/18/17 09:30
240-78206-2	MRC-MW27A-041717	Water	04/17/17 08:36	04/18/17 09:30
240-78206-3	MRC-MW27B-041717	Water	04/17/17 10:36	04/18/17 09:30
240-78206-4	MRC-MW27C-041717	Water	04/17/17 11:49	04/18/17 09:30
240-78206-5	MRC-MW24A-041717	Water	04/17/17 14:33	04/18/17 09:30
240-78206-6	MRC-DUP10-041717	Water	04/17/17 00:00	04/18/17 09:30

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

2, 2/C1.9

Chain of Custody Record

180325

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

BALTIMORE

Client Information	Sampler: Walt Payon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.2
Client Contact: Mr. Stuart Cameron	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3022	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Middle River Center	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (522)	Total Metals (6020A)	MEE (RSK-175)	DOC Diss (9060)	Total Select Metals (6010C)	Ammonia (SM4500NH3)	Alkalinity (2320B)	Anions - NO2,NO3 (300)	Anions - Cl, SO4 (300.0)	Calcd - TDS (2540C)	PE ortho (4500)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A													
TB-041217	4/12/17	—	G	Water			2	-	-	-	-	-	-	-	-	-	-	-		
MRC-MW12B-041217		1035		Water			3	2	1	3	3	1	1	1	1	→	→	→		
MRC-MW13A-041217		1226					3	2	-	-	-	-	-	-	-	-	-	1		
MRC-MW12C-041217		1349					3	2	1	-	-	-	-	-	-	-	-	-		
MRC-MW63A-041217	↓	1514	↓	↓			3	2	-	-	-	-	-	-	-	-	-	-		

240-78035 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Walt Payon	4/12/17 1540	TT Env		4-12-2017/1540	
2		4-12-2017/1625			4/13/17 9:40	TANC
3						

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
Δ Yes Δ No		

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 74836**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:
Cooler Received on 4/13/17 Opened on 4/13/17
FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 2.2 °C Corrected Cooler Temp. 1.9 °C
IR GUN #36 (CF **+0.8**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 11-15 have been checked at the originating laboratory.		
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Covered	Yes	No
15. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW12B-041217	240-78035-J-2	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW12B-041217	240-78035-K-2	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW12B-041217	240-78035-M-2	Plastic 250ml - with Sulfuric Acid	<2	_____	_____
MRC-MW12B-041217	240-78035-O-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MRC-MW12B-041217	240-78035-P-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MRC-MW13A-041217	240-78035-D-3	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW13A-041217	240-78035-E-3	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW12C-041217	240-78035-D-4	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW12C-041217	240-78035-E-4	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW12C-041217	240-78035-F-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
MRC-MW63A-041217	240-78035-D-5	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW63A-041217	240-78035-E-5	Amber Glass 250mL - hydrochloric	<2	_____	_____

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

3.2/C2.9

Chain of Custody Record

180325

BALTIMORE

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Plyon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.1
Client Contact: Mr. Stuart Cameron	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 2
Company: Tetra Tech, Inc.				Job #:

Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Germantown	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: MD, 20874			
Phone: 301 528-3022	PO #: 1093454		Other:
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776		
Project Name: MRC 2017 GW	Project #: 24015639		
Site: Middle River Center	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (8270)	Total metals (6020A)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A				
TB-041317	4/13/17	~~[illegible]~~	G	Water			2	-	-		
MRC-MW109B-041317	↓	1445		Water			3	-	-		
MRC-MW80A-041417	4/14/17	0940		Water			-	2	-		
MRC-MW80B-041417		1135		Water			3	2	-		
MRC-MW22B-041417		1320		Water			3	2	-		
MRC-MW109A-041417		1345		Water			3	-	-		
MRC-MW93A-041417		1400		Water			3	-	-		
MRC-MW70A-041417		0930		Water			3	2	1		
MRC-MW70B-041417		1115		Water			3	2	1		
MRC-MW10A-041417		1345		Water			3	2	-		
MRC-MW04A-041417		1440		Water			3	2	-		

240-78169 Chain of Custody

Page 687 of 693

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Plyon	4/14/17 1532	TTINC		4-14-2017 1532	TestAmerica
Relinquished by:	Date/Time: 4-14-2017 1620	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company TestAmerica	Received by:	Date/Time: 04/15/17 930	Company TAL

Custody Seals Intact: | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

180325

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

BALTIMORE

Client Information	Sampler: Walt Rayon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41091-17888.2
Client Contact: Mr. Stuart Cameron	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3022	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Middle River Center	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A			
MRC-MW02A-041417	4/14/17	1504	G	Water			3	-		
MRC-Dup09-041417	↓	0000		Water			-	2		

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	4/14/17 1532	TT INC		4-14-2017/1532	TestAmerica
Relinquished by:	4-14-2017/1620	TestAmerica	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	04/15/17 930	TT

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
Δ Yes Δ No		

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 78169**
Canton Facility

Client Tetra Tech Site Name MRC Cooler unpacked by: DD

Cooler Received on 04/15/17 Opened on 04/15/17

FedEx: 1st Grd ~~Exp~~ UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: ~~Bubble Wrap~~ Foam ~~Plastic~~ Bag None Other

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 3.2 °C Corrected Cooler Temp. 2.9 °C
   IR GUN #36 (CF **+0.8**°C) Observed Cooler Temp. °C Corrected Cooler Temp. °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # covered Yes No
15. Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM Date by via Verbal Voice Mail Other

Concerning

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW80A-041417	240-78169-A-3	Amber Glass 250mL - hydrochloric			
MRC-MW80A-041417	240-78169-B-3	Amber Glass 250mL - hydrochloric			
MRC-MW80B-041417	240-78169-D-4	Amber Glass 250mL - hydrochloric			
MRC-MW80B-041417	240-78169-E-4	Amber Glass 250mL - hydrochloric			
MRC-MW22B-041417	240-78169-D-5	Amber Glass 250mL - hydrochloric			
MRC-MW22B-041417	240-78169-E-5	Amber Glass 250mL - hydrochloric			
MRC-MW70A-041417	240-78169-D-8	Amber Glass 250mL - hydrochloric			
MRC-MW70A-041417	240-78169-E-8	Amber Glass 250mL - hydrochloric			
MRC-MW70A-041417	240-78169-F-8	Plastic 500ml - with Nitric Acid	<2		
MRC-MW70B-041417	240-78169-D-9	Amber Glass 250mL - hydrochloric			
MRC-MW70B-041417	240-78169-E-9	Amber Glass 250mL - hydrochloric			
MRC-MW70B-041417	240-78169-F-9	Plastic 500ml - with Nitric Acid	<2		
MRC-MW10A-041417	240-78169-D-10	Amber Glass 250mL - hydrochloric			
MRC-MW10A-041417	240-78169-E-10	Amber Glass 250mL - hydrochloric			
MRC-MW08A-041417	240-78169-D-11	Amber Glass 250mL - hydrochloric			
MRC-MW08A-041417	240-78169-E-11	Amber Glass 250mL - hydrochloric			
MRC-DUP09-041417	240-78169-A-13	Amber Glass 250mL - hydrochloric			
MRC-DUP09-041417	240-78169-B-13	Amber Glass 250mL - hydrochloric			

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

1.4/1.1

Chain of Custody Record

180325

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Ryan	Lab PM: McFadden, John	Carrier Tracking No(s): BALTIMORE	COC No: 240-41091-17888.1
Client Contact: Mr. Stuart Cameron	Phone: 301 528-3075	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 2
Company: Tetra Tech, Inc.		Analysis Requested		Job #:

Address: 20251 Century Blvd Suite 200	Due Date Requested:	
City: Germantown	TAT Requested (days):	
State, Zip: MD, 20874		
Phone: 301 528-3022	PO #: 1093454	
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776	
Project Name: MRC 2017 GW	Project #: 24015639	
Site: Middle River Center	SSOW#:	

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (522)	MEE (RSK-175)	DOC Diss (9060)	Total Select Metals (6010C)	Ammonia (SM4500 NH3)	Alkalinity (2320B)	Anions - NO2,NO3 (300)	Anions - Cl, SO4 (300.0/28)	Calcd - TDS (2540C)	PE ortho (4500)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A												
TB-041717	4/17/17	—	G	Water			2	1	-	-	-	-	-	-	-	-	-		
MRC-MW27A-041717		0836		Water			3	2	3	3	1	1	1	1	→	→	→		
MRC-MW27B-041717		1036		Water			3	2	3	3	1	1	1	1	→	→	→		
MRC-MW-27C-041717		1149		Water			3	2	-	-	-	-	-	-	-	-	-		
MRC-MW-24A-041717		1433		Water			-	-	3	3	1	1	1	1	→	→	→		
MRC-Dup10-041717		0000		Water			3	-	-	-	-	-	-	-	-	-	-		
				Water															
				Water															
				Water															
				Water															
				Water															

240-78206 Chain of Custody

Page 691 of 693

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be ... etained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Walt Ryan	Date/Time: 4/17/17 / 1516	Company: TT INC	Received by:	Date/Time: 4-17-2017 / 1516	Company: TestAmerica
Relinquished by:	Date/Time: 4-17-2017 / 1619	Company	Received by:	Date/Time: 04/18/17 930	Company: TAC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 78206**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: DSD

Cooler Received on 04/18/17 Opened on 04/18/17

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box (Client Cooler) Box Other _____

Packing material used: (Bubble Wrap) Foam (Plastic Bag) None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 1.4 °C Corrected Cooler Temp. 1.1 °C
   IR GUN #36 (CF **+0.8**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? (Yes) No
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Are these work share samples? Yes (No)
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? (Yes) No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes (No) NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Covered (Yes) No
15. Was a LL Hg or Me Hg trip blank present? _____ Yes (No)

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW27A-041717	240-78206-J-2	Amber Glass 250mL - hydrochloric			
MRC-MW27A-041717	240-78206-K-2	Amber Glass 250mL - hydrochloric			
MRC-MW27A-041717	240-78206-M-2	Plastic 250ml - with Sulfuric Acid	<2		
MRC-MW27A-041717	240-78206-O-2	Plastic 500ml - with Nitric Acid	<2		
MRC-MW27B-041717	240-78206-J-3	Amber Glass 250mL - hydrochloric			
MRC-MW27B-041717	240-78206-K-3	Amber Glass 250mL - hydrochloric			
MRC-MW27B-041717	240-78206-M-3	Plastic 250ml - with Sulfuric Acid	<2		
MRC-MW27B-041717	240-78206-O-3	Plastic 500ml - with Nitric Acid	<2		
MRC-MW27C-041717	240-78206-D-4	Amber Glass 250mL - hydrochloric			
MRC-MW27C-041717	240-78206-E-4	Amber Glass 250mL - hydrochloric			
MRC-MW24A-041717	240-78206-J-5	Amber Glass 250mL - hydrochloric			
MRC-MW24A-041717	240-78206-K-5	Amber Glass 250mL - hydrochloric			
MRC-MW24A-041717	240-78206-M-5	Plastic 250ml - with Sulfuric Acid	<2		
MRC-MW24A-041717	240-78206-O-5	Plastic 500ml - with Nitric Acid	<2		

FIELD DUPLICATE PRECISION

ORIGINAL ID	DUP ID	FRACTION	ANALYTE	ORIGINAL	QUAL	DUPLICATE	QUAL	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >RL	DUPLICATE SAMPLE CONC >RL	DIFFERENCE >2XRL
MRC-MW27C-041717	MRC-DUP10-041717	OV	ACETONE	1.8	U	1.9	J	10	5.41	FALSE	FALSE	FALSE	FALSE
MRC-MW27C-041717	MRC-DUP10-041717	OV	CIS-1,2-DICHLOROETHENE	0.35	J	0.3	U	1	15.38	FALSE	FALSE	FALSE	FALSE
MRC-MW27C-041717	MRC-DUP10-041717	OV	TRICHLOROETHENE	0.33	U	0.67	J	1	68.00	TRUE	FALSE	FALSE	FALSE
MRC-MW80A-041417	MRC-DUP09-041417	OS	1,4-DIOXANE	0.67		0.65		1	3.03	FALSE	FALSE	FALSE	FALSE

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: BFB3508.D BFB Injection Date: 03/30/2017

Instrument ID: A3UX12 BFB Injection Time: 12:55

Analysis Batch No.: 272636

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.8	
75	30.0 - 60.0 % of mass 95	44.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	80.3	
175	5.0 - 9.0 % of mass 174	6.1	(7.7) 1
176	95.0 - 101.0 % of mass 174	79.2	(98.6) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272636/6	U1256165.D	03/30/2017	14:15
	STD8260 240-272636/7	U1256166.D	03/30/2017	14:40
	STD8260 240-272636/8	U1256167.D	03/30/2017	15:04
	ICIS 240-272636/9	U1256168a.D	03/30/2017	15:28
	STD8260 240-272636/10	U1256169.D	03/30/2017	15:53
	STD8260 240-272636/11	U1256170.D	03/30/2017	16:17
	ICV 240-272636/19	U1256172.D	03/30/2017	17:09

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272636/6	U1256165.D
Level 2	STD8260 240-272636/7	U1256166.D
Level 3	STD8260 240-272636/8	U1256167.D
Level 4	ICIS 240-272636/9	U1256168a.D
Level 5	STD8260 240-272636/10	U1256169.D
Level 6	STD8260 240-272636/11	U1256170.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3798 0.4766	0.3214	0.4275	0.4725	0.4854	Ave		0.4272			0.1000	15.3		20.0			
Chloromethane	0.5018 0.5166	0.4950	0.5342	0.5144	0.5206	Ave		0.5137			0.1000	2.7		20.0			
Vinyl chloride	0.4946 0.5486	0.4759	0.5444	0.5327	0.5490	Ave		0.5242			0.1000	6.0		20.0			
Butadiene	0.4937 0.5211	0.4355	0.5011	0.5174	0.5331	Ave		0.5003				6.9		20.0			
Bromomethane	0.2405 0.2668	0.2512	0.2726	0.2645	0.2780	Ave		0.2623			0.0500	5.3		20.0			
Chloroethane	0.3009 0.3306	0.2714	0.3204	0.3113	0.3307	Ave		0.3109			0.0500	7.2		20.0			
Dichlorofluoromethane	0.6919 0.6606	0.5826	0.6566	0.6472	0.6648	Ave		0.6506				5.6		20.0			
Trichlorofluoromethane	0.3709 0.5153	0.3240	0.4721	0.4860	0.5147	Ave		0.4471			0.1000	18.0		20.0			
Ethyl ether	0.2324 0.2745	0.2641	0.2762	0.2765	0.2741	Ave		0.2663				6.5		20.0			
Acrolein	0.0343 0.0441	0.0286	0.0455	0.0441	0.0446	Ave		0.0402				17.5		20.0			
1,1-Dichloroethene	0.5546 0.6162	0.5673	0.6038	0.5773	0.6104	Ave		0.5883			0.1000	4.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2905 0.3480	0.2826	0.3105	0.3279	0.3444	Ave		0.3173			0.0500	8.6		20.0			
Acetone	+++++ 0.1200	0.1724	0.1041	0.1083	0.1221	Lin1	0.0734	0.1166			0.0100				0.9960		0.9900
Iodomethane	0.4944 0.5532	0.5254	0.5564	0.5281	0.5503	Ave		0.5346				4.4		20.0			
Carbon disulfide	1.2572 1.0916	1.1908	1.0252	1.0345	1.0856	Ave		1.1141			0.1000	8.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	+++++ 0.3042	0.2591	0.3130	0.4835	0.3622	Ave		0.3444				25.0	*	20.0			
Methyl acetate	0.1773 0.2193	0.2236	0.2275	0.2192	0.2190	Ave		0.2143			0.1000	8.6		20.0			
Methylene Chloride	+++++ 0.4872	1.5296	0.5897	0.4995	0.4909	Lin1	1.0661	0.4653			0.1000				1.0000		0.9900
2-Methyl-2-propanol	0.0268 0.0310	0.0250	0.0313	0.0301	0.0314	Ave		0.0293				9.3		20.0			
Acrylonitrile	0.1181 0.1255	0.1222	0.1281	0.1254	0.1256	Ave		0.1241				2.8		20.0			
trans-1,2-Dichloroethene	0.4332 0.4658	0.4192	0.4531	0.4396	0.4597	Ave		0.4451			0.1000	4.0		20.0			
Methyl tert-butyl ether	0.8236 0.8305	0.7263	0.8018	0.7920	0.8238	Ave		0.7997			0.1000	4.9		20.0			
Hexane	0.3388 0.3851	0.3177	0.3437	0.3710	0.3907	Ave		0.3578				8.1		20.0			
1,1-Dichloroethane	0.5402 0.5652	0.5243	0.5659	0.5564	0.5697	Ave		0.5536			0.2000	3.2		20.0			
Vinyl acetate	0.3784 0.4974	0.3781	0.4477	0.4491	0.4815	Ave		0.4387				11.5		20.0			
2,2-Dichloropropane	0.2093 0.2395	0.1974	0.2246	0.2389	0.2510	Ave		0.2268				9.0		20.0			
cis-1,2-Dichloroethene	0.4743 0.4849	0.4668	0.4920	0.4699	0.4886	Ave		0.4794			0.1000	2.2		20.0			
2-Butanone (MEK)	0.1508 0.1552	0.1393	0.1388	0.1470	0.1592	Ave		0.1484			0.0100	5.6		20.0			
Chlorobromomethane	0.2661 0.2642	0.2938	0.2616	0.2701	0.2615	Ave		0.2696				4.6		20.0			
Tetrahydrofuran	0.0903 0.0898	0.0892	0.0934	0.0887	0.0899	Ave		0.0902				1.8		20.0			
Chloroform	0.4815 0.5310	0.5015	0.5333	0.5232	0.5323	Ave		0.5171			0.2000	4.1		20.0			
1,1,1-Trichloroethane	0.3363 0.3596	0.2926	0.3480	0.3544	0.3724	Ave		0.3439			0.1000	8.1		20.0			
Cyclohexane	0.4286 0.5333	0.4700	0.4740	0.5035	0.5299	Ave		0.4899			0.1000	8.2		20.0			
1,1-Dichloropropene	0.4223 0.4484	0.4000	0.4370	0.4395	0.4522	Ave		0.4332				4.5		20.0			
Carbon tetrachloride	0.2426 0.3478	0.2568	0.3048	0.3164	0.3416	Ave		0.3017			0.1000	14.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0048 0.0087	0.0046	0.0074	0.0073	0.0083	Lin1	-0.070	0.0083							0.9960		0.9900
Benzene	1.3655 1.4239	1.3310	1.4028	1.3828	1.4152	Ave		1.3869			0.5000	2.5		20.0			
1,2-Dichloroethane	0.3799 0.4037	0.3568	0.4100	0.3873	0.4069	Ave		0.3908			0.1000	5.2		20.0			
n-Heptane	+++++ 0.1879	0.7476	0.2166	0.1987	0.1940	Lin1	0.5549	0.1767							0.9990		0.9900
Trichloroethene	0.3369 0.3552	0.3575	0.3489	0.3421	0.3532	Ave		0.3490			0.1500	2.3		20.0			
Methylcyclohexane	0.4044 0.4857	0.4143	0.4244	0.4604	0.4774	Ave		0.4444			0.1000	7.8		20.0			
1,2-Dichloropropane	0.3108 0.3459	0.3005	0.3509	0.3385	0.3477	Ave		0.3324			0.1000	6.4		20.0			
Dibromomethane	0.2333 0.2211	0.1946	0.2240	0.2228	0.2234	Ave		0.2199				6.0		20.0			
1,4-Dioxane	+++++ 0.0041	0.0019	0.0037	0.0032	0.0037	Lin1	-0.049	0.0039							0.9930		0.9900
Dichlorobromomethane	0.3381 0.3950	0.3299	0.3717	0.3674	0.3851	Ave		0.3645			0.1500	7.1		20.0			
2-Chloroethyl vinyl ether	0.1131 0.1401	0.0993	0.1215	0.1256	0.1330	Ave		0.1221				11.9		20.0			
cis-1,3-Dichloropropene	0.3667 0.5663	0.3833	0.5045	0.5069	0.5488	Ave		0.4794			0.1500	17.6		20.0			
4-Methyl-2-pentanone (MIBK)	0.2894 0.2768	0.2436	0.2688	0.2683	0.2778	Ave		0.2708			0.0500	5.7		20.0			
Toluene	2.0480 1.9258	1.7897	1.9470	1.8851	1.9530	Ave		1.9248			0.4000	4.4		20.0			
trans-1,3-Dichloropropene	0.3721 0.6229	0.4055	0.5396	0.5651	0.6185	Lin1	-0.171	0.6116			0.1000				0.9980		0.9900
Ethyl methacrylate	0.4494 0.5770	0.4203	0.5309	0.5432	0.5842	Ave		0.5175				13.1		20.0			
1,1,2-Trichloroethane	0.3870 0.3781	0.3892	0.3805	0.3799	0.3820	Ave		0.3828			0.1000	1.1		20.0			
Tetrachloroethene	0.4069 0.4429	0.3989	0.4345	0.4265	0.4538	Ave		0.4272			0.1500	4.9		20.0			
1,3-Dichloropropane	0.6108 0.7292	0.7360	0.7395	0.7235	0.7318	Ave		0.7118				7.0		20.0			
2-Hexanone	0.2236 0.2785	0.2173	0.2442	0.2563	0.2893	Ave		0.2515			0.0500	11.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2610 0.3862	0.2876	0.3315	0.3494	0.3776	Ave		0.3322				14.9		20.0			
Ethylene Dibromide	0.3559 0.3752	0.3561	0.3754	0.3729	0.3887	Ave		0.3707				3.4		20.0			
Chlorobenzene	1.2636 1.2675	1.2242	1.2644	1.2368	1.2814	Ave		1.2563			0.3000	1.7		20.0			
1,1,1,2-Tetrachloroethane	0.3125 0.4030	0.3124	0.3651	0.3716	0.3961	Ave		0.3601				11.0		20.0			
Ethylbenzene	0.5804 0.6750	0.5503	0.6585	0.6500	0.6848	Ave		0.6332				8.7		20.0			
m-Xylene & p-Xylene	0.7334 0.8442	0.7084	0.8197	0.8178	0.8584	Ave		0.7970				7.7		20.0			
o-Xylene	0.7700 0.8411	0.7261	0.8165	0.8054	0.8545	Ave		0.8023				5.9		20.0			
Styrene	1.2532 1.4940	1.2081	1.4153	1.4240	1.4954	Ave		1.3817			0.3000	8.9		20.0			
Bromoform	+++++ 0.2534	0.1295	0.2001	0.2131	0.2471	Lin1	-0.158	0.2463			0.1000				0.9950		0.9900
Isopropylbenzene	1.6354 1.9795	1.6278	1.8819	1.8811	1.9883	Ave		1.8323			0.1000	8.8		20.0			
1,1,2,2-Tetrachloroethane	1.0080 0.9169	0.9231	0.9165	0.9466	0.9451	Ave		0.9427			0.3000	3.7		20.0			
Bromobenzene	0.9563 0.9487	0.8895	0.9650	0.9256	0.9585	Ave		0.9406				3.0		20.0			
1,2,3-Trichloropropane	0.3010 0.3043	0.2803	0.3217	0.3117	0.3130	Ave		0.3053				4.7		20.0			
trans-1,4-Dichloro-2-butene	0.0997 0.2140	0.0769	0.1379	0.1646	0.1937	Qua	-0.093	0.1481	0.0011338						1.0000		0.9900
N-Propylbenzene	0.8059 0.9528	0.8174	0.9052	0.9203	0.9591	Ave		0.8934				7.4		20.0			
2-Chlorotoluene	0.6908 0.8373	0.7954	0.8286	0.8369	0.8618	Ave		0.8085				7.6		20.0			
1,3,5-Trimethylbenzene	2.5646 2.8894	2.4958	2.7445	2.8008	2.8865	Ave		2.7303				6.1		20.0			
4-Chlorotoluene	0.8868 0.9055	0.8747	0.8883	0.8823	0.9172	Ave		0.8925				1.8		20.0			
tert-Butylbenzene	2.1890 2.3837	2.1160	2.3291	2.3301	2.3973	Ave		2.2909				4.9		20.0			
1,2,4-Trimethylbenzene	2.7829 3.0685	2.6833	2.9725	3.0191	3.1020	Ave		2.9381				5.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.1279 3.4067	2.9456	3.2539	3.2645	3.4405	Ave		3.2398				5.7		20.0			
1,3-Dichlorobenzene	1.6949 1.7509	1.5897	1.7326	1.7351	1.7754	Ave		1.7131			0.6000	3.8		20.0			
4-Isopropyltoluene	2.6277 3.0158	2.5390	2.8553	2.9315	3.0317	Ave		2.8335				7.3		20.0			
1,4-Dichlorobenzene	1.9156 1.8053	1.7885	1.8271	1.7914	1.8188	Ave		1.8245			0.5000	2.6		20.0			
n-Butylbenzene	2.1422 2.4570	2.0092	2.2766	2.3454	2.4687	Ave		2.2832				7.9		20.0			
1,2-Dichlorobenzene	1.7500 1.6992	1.5453	1.7047	1.6996	1.6947	Ave		1.6822			0.4000	4.2		20.0			
1,2-Dibromo-3-Chloropropane	0.1586 0.1963	0.1312	0.1751	0.1838	0.1849	Ave		0.1717			0.0500	13.7		20.0			
1,2,4-Trichlorobenzene	1.0232 1.0048	0.9198	0.9750	0.9843	0.9997	Ave		0.9845			0.2000	3.6		20.0			
Hexachlorobutadiene	0.3806 0.4187	0.3870	0.3865	0.4120	0.4151	Ave		0.4000				4.3		20.0			
Naphthalene	2.3168 2.7476	2.1622	2.5637	2.6125	2.7152	Ave		2.5196				9.2		20.0			
1,2,3-Trichlorobenzene	0.7700 0.8915	0.8371	0.8678	0.8716	0.8989	Ave		0.8562				5.5		20.0			
Dibromofluoromethane (Surr)	0.2719 0.2850	0.2713	0.2984	0.2826	0.2860	Ave		0.2825				3.6		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2948 0.3335	0.3199	0.3468	0.3381	0.3394	Ave		0.3288				5.7		20.0			
Toluene-d8 (Surr)	1.5231 1.6132	1.4413	1.6273	1.5894	1.6540	Ave		1.5747				5.0		20.0			
4-Bromofluorobenzene (Surr)	0.6141 0.6057	0.5506	0.5970	0.5845	0.6185	Ave		0.5951				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272636/6	U1256165.D
Level 2	STD8260 240-272636/7	U1256166.D
Level 3	STD8260 240-272636/8	U1256167.D
Level 4	ICIS 240-272636/9	U1256168a.D
Level 5	STD8260 240-272636/10	U1256169.D
Level 6	STD8260 240-272636/11	U1256170.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	10387 1650287	17839	235715	534631	1098536	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	13723 1788898	27472	294496	581996	1178332	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	13526 1899662	26414	300158	602769	1242700	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	13502 1804705	24171	276298	585437	1206701	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	6579 923902	13942	150267	299338	629294	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	8229 1144935	15063	176666	352205	748424	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	18923 2287612	32335	362021	732298	1504661	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	10144 1784382	17979	260281	549866	1164887	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	6357 950495	14655	152304	312881	620302	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	4697 764019	7933	125410	249497	504481	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	15167 2133861	31484	332896	653227	1381644	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	7945 1204999	15684	171203	370990	779604	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 830965	19136	114791	245099	552506	+++++ 120	2.00	20.0	40.0	80.0
Iodomethane	FB	Ave	13521 1915748	29160	306746	597576	1245440	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	34383 3780141	66086	565210	1170503	2457140	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	+++++ 1053418	14380	172555	547135	819846	+++++ 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	24249 3797795	62045	627057	1240291	2478483	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 1687046	84889	325118	565167	1111089	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	7324 1075117	13878	172788	340488	711546	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	32298 4347478	67809	706144	1418757	2842913	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	11847 1612990	23263	249807	497410	1040360	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	22525 2875968	40307	442072	896129	1864615	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	9266 1333542	17632	189493	419744	884309	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	14774 1957094	29099	311990	629544	1289355	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	10348 1722538	20984	246848	508114	1089728	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	5725 829293	10957	123828	270341	568012	0.500 60.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	12972 1679268	25905	271231	531666	1105827	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	8248 1075178	15462	153041	332648	720540	1.00 120	2.00	20.0	40.0	80.0
Chlorobromomethane	FB	Ave	7278 914991	16307	144237	305608	591827	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	4938 622053	9902	102964	200739	407113	1.00 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	13170 1838957	27833	294036	592002	1204689	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9198 1245133	16241	191882	401055	842911	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	11722 1846652	26086	261356	569743	1199249	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	11551 1552863	22197	240930	497325	1023540	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6636 1204546	14253	168073	357956	773225	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Lin1	3253 751277	6419	102122	206287	467963	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	37345 4930791	73866	773422	1564666	3203116	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	10390 1398059	19800	226066	438267	921018	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 650720	41488	119441	224871	439104	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	9214 1230146	19841	192375	387112	799417	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	11059 1682038	22993	234011	520952	1080435	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	8499 1197727	16679	193443	383036	787005	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	6381 765740	10802	123502	252142	505669	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Lin1	+++++ 285936	2096	40650	72125	169169	+++++ 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	9247 1367766	18309	204920	415700	871673	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	6185 970153	11027	133993	284141	602023	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	10029 1960941	21274	278147	573509	1242172	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	15831 1917228	27041	296409	607266	1257360	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	43807 5280190	76383	828912	1653258	3422673	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Lin1	7960 1707811	17307	229724	495584	1083933	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	9613 1581912	17937	226009	476390	1023750	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	8278 1036571	16609	162001	333197	669446	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	8704 1214415	17024	184978	374049	795236	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	13066 1999329	31412	314820	634561	1282513	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	9567 1527118	18549	207948	449600	1014120	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5583 1058792	12276	141147	306443	661817	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	7613 1028718	15200	159806	327076	681222	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	27030 3475296	52251	538292	1084683	2245655	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6685 1104795	13335	155424	325930	694093	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	12415 1850668	23485	280352	570063	1200205	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	15688 2314565	30235	348963	717251	1504343	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	16470 2305969	30992	347623	706332	1497591	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	26807 4096172	51564	602549	1248847	2620789	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Lin1	+++++ 694726	5529	85175	186912	433002	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	34982 5427334	69474	801190	1649820	3484538	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	11227 1432255	21199	217877	460551	947934	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	10651 1481916	20428	229390	450310	961374	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	3353 475412	6438	76463	151635	313890	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Qua	1110 334219	1766	32776	80087	194314	0.500 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8976 1488380	18773	215188	447718	961912	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7694 1307965	18267	196972	407166	864345	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	28564 4513521	57317	652407	1362650	2895067	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	9877 1414436	20087	211167	429267	919908	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	24381 3723651	48595	553654	1133610	2404451	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	30996 4793394	61623	706613	1468834	3111231	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	34839 5321557	67647	773502	1588217	3450738	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	18878 2735053	36509	411862	844145	1780637	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	29267 4710996	58310	678759	1426220	3040661	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	21336 2820044	41074	434337	871537	1824241	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	23860 3838102	46143	541188	1141046	2476002	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	19492 2654255	35489	405223	826882	1699733	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1766 306679	3014	41633	89401	185467	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	11396 1569667	21123	231770	478896	1002639	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4239 654019	8887	91885	200466	416337	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	25804 4291977	49656	609427	1271025	2723259	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	8576 1392618	19225	206293	424049	901567	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	7436 986969	15056	164528	319763	647426	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	8064 1154935	17754	191226	382566	768244	0.500 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	32581 4423100	61514	692795	1393905	2898691	0.500 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	13137 1660750	23498	254145	512659	1083953	0.500 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 240-272636/19 Calibration Date: 03/30/2017 17:09

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256172.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4272	0.3938	0.1000	0.0184	0.0200	-7.8	20.0
Chloromethane	Ave	0.5137	0.4827	0.1000	0.0188	0.0200	-6.0	20.0
Vinyl chloride	Ave	0.5242	0.5142	0.1000	0.0196	0.0200	-1.9	20.0
Butadiene	Ave	0.5003	0.4863		0.0194	0.0200	-2.8	30.0
Bromomethane	Ave	0.2623	0.2562	0.0500	0.0195	0.0200	-2.3	20.0
Chloroethane	Ave	0.3109	0.3181	0.0500	0.0205	0.0200	2.3	20.0
Dichlorofluoromethane	Ave	0.6506	0.6495		0.0200	0.0200	-0.2	20.0
Trichlorofluoromethane	Ave	0.4471	0.4961	0.1000	0.0222	0.0200	10.9	20.0
Ethyl ether	Ave	0.2663	0.2843		0.0214	0.0200	6.8	20.0
Acrolein	Ave	0.0402	0.0521		0.130	0.100	29.6	50.0
1,1-Dichloroethene	Ave	0.5883	0.6308	0.1000	0.0214	0.0200	7.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3173	0.3503	0.0500	0.0221	0.0200	10.4	20.0
Acetone	Lin1		0.0856	0.0100	0.0287	0.0400	-28.2	50.0
Iodomethane	Ave	0.5346	0.5663		0.0212	0.0200	5.9	20.0
Carbon disulfide	Ave	1.114	1.153	0.1000	0.0207	0.0200	3.5	20.0
3-Chloro-1-propene	Ave	0.3444	0.4503		0.0261	0.0200	30.7*	20.0
Methyl acetate	Ave	0.2143	0.2225	0.1000	0.0415	0.0400	3.8	20.0
Methylene Chloride	Lin1		0.4987	0.1000	0.0191	0.0200	-4.3	50.0
2-Methyl-2-propanol	Ave	0.0293	0.0332		0.226	0.200	13.2	50.0
Acrylonitrile	Ave	0.1241	0.1275		0.205	0.200	2.7	20.0
Methyl tert-butyl ether	Ave	0.7997	0.8122	0.1000	0.0203	0.0200	1.6	20.0
trans-1,2-Dichloroethene	Ave	0.4451	0.4745	0.1000	0.0213	0.0200	6.6	20.0
Hexane	Ave	0.3578	0.4036		0.0226	0.0200	12.8	20.0
1,1-Dichloroethane	Ave	0.5536	0.5725	0.2000	0.0207	0.0200	3.4	20.0
Vinyl acetate	Ave	0.4387	0.5577		0.0254	0.0200	27.1	50.0
2,2-Dichloropropane	Ave	0.2268	0.2373		0.0209	0.0200	4.6	20.0
cis-1,2-Dichloroethene	Ave	0.4794	0.4835	0.1000	0.0202	0.0200	0.9	20.0
2-Butanone (MEK)	Ave	0.1484	0.1404	0.0100	0.0379	0.0400	-5.4	20.0
Chlorobromomethane	Ave	0.2696	0.2593		0.0192	0.0200	-3.8	20.0
Tetrahydrofuran	Ave	0.0902	0.0914		0.0405	0.0400	1.3	20.0
Chloroform	Ave	0.5171	0.5274	0.2000	0.0204	0.0200	2.0	20.0
1,1,1-Trichloroethane	Ave	0.3439	0.3578	0.1000	0.0208	0.0200	4.0	20.0
Cyclohexane	Ave	0.4899	0.5377	0.1000	0.0220	0.0200	9.8	20.0
1,1-Dichloropropene	Ave	0.4332	0.4507		0.0208	0.0200	4.0	20.0
Carbon tetrachloride	Ave	0.3017	0.3282	0.1000	0.0218	0.0200	8.8	20.0
Isobutyl alcohol	Lin1		0.0085		0.518	0.500	3.7	20.0
Benzene	Ave	1.387	1.441	0.5000	0.0208	0.0200	3.9	20.0
1,2-Dichloroethane	Ave	0.3908	0.3964	0.1000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.2109		0.0207	0.0200	3.6	20.0
Trichloroethene	Ave	0.3490	0.3498	0.1500	0.0200	0.0200	0.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 240-272636/19 Calibration Date: 03/30/2017 17:09

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256172.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4444	0.4784	0.1000	0.0215	0.0200	7.6	20.0
1,2-Dichloropropane	Ave	0.3324	0.3500	0.1000	0.0211	0.0200	5.3	20.0
Dibromomethane	Ave	0.2199	0.2198		0.0200	0.0200	-0.0	20.0
1,4-Dioxane	Lin1		0.0043		0.451	0.400	12.8	50.0
Dichlorobromomethane	Ave	0.3645	0.3873	0.1500	0.0212	0.0200	6.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1221	0.1307		0.0214	0.0200	7.1	20.0
cis-1,3-Dichloropropene	Ave	0.4794	0.5432	0.1500	0.0227	0.0200	13.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2708	0.2766	0.0500	0.0409	0.0400	2.2	20.0
Toluene	Ave	1.925	1.934	0.4000	0.0201	0.0200	0.5	20.0
trans-1,3-Dichloropropene	Lin1		0.5770	0.1000	0.0191	0.0200	-4.3	20.0
Ethyl methacrylate	Ave	0.5175	0.5589		0.0216	0.0200	8.0	20.0
1,1,2-Trichloroethane	Ave	0.3828	0.3860	0.1000	0.0202	0.0200	0.9	20.0
Tetrachloroethene	Ave	0.4272	0.4388	0.1500	0.0205	0.0200	2.7	20.0
1,3-Dichloropropane	Ave	0.7118	0.7163		0.0201	0.0200	0.6	20.0
2-Hexanone	Ave	0.2515	0.2513	0.0500	0.0400	0.0400	-0.1	20.0
Chlorodibromomethane	Ave	0.3322	0.3621		0.0218	0.0200	9.0	20.0
Ethylene Dibromide	Ave	0.3707	0.3784		0.0204	0.0200	2.1	20.0
Chlorobenzene	Ave	1.256	1.257	0.3000	0.0200	0.0200	0.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3601	0.3845		0.0214	0.0200	6.8	20.0
Ethylbenzene	Ave	0.6332	0.6610		0.0209	0.0200	4.4	20.0
m-Xylene & p-Xylene	Ave	0.7970	0.8258		0.0207	0.0200	3.6	20.0
o-Xylene	Ave	0.8023	0.8155		0.0203	0.0200	1.6	20.0
Styrene	Ave	1.382	1.434	0.3000	0.0208	0.0200	3.8	20.0
Bromoform	Lin1		0.2314	0.1000	0.0194	0.0200	-2.9	20.0
Isopropylbenzene	Ave	1.832	1.928	0.1000	0.0210	0.0200	5.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9427	0.9583	0.3000	0.0203	0.0200	1.7	20.0
Bromobenzene	Ave	0.9406	0.9531		0.0203	0.0200	1.3	20.0
1,2,3-Trichloropropane	Ave	0.3053	0.3246		0.0213	0.0200	6.3	20.0
trans-1,4-Dichloro-2-butene	Qua		0.2010		0.0235	0.0200	17.6	20.0
N-Propylbenzene	Ave	0.8934	0.9509		0.0213	0.0200	6.4	20.0
2-Chlorotoluene	Ave	0.8085	0.8388		0.0207	0.0200	3.7	20.0
1,3,5-Trimethylbenzene	Ave	2.730	2.854		0.0209	0.0200	4.5	20.0
4-Chlorotoluene	Ave	0.8925	0.9150		0.0205	0.0200	2.5	20.0
tert-Butylbenzene	Ave	2.291	2.381		0.0208	0.0200	3.9	20.0
1,2,4-Trimethylbenzene	Ave	2.938	3.006		0.0205	0.0200	2.3	20.0
sec-Butylbenzene	Ave	3.240	3.368		0.0208	0.0200	4.0	20.0
1,3-Dichlorobenzene	Ave	1.713	1.763	0.6000	0.0206	0.0200	2.9	20.0
4-Isopropyltoluene	Ave	2.833	3.028		0.0214	0.0200	6.9	20.0
1,4-Dichlorobenzene	Ave	1.824	1.819	0.5000	0.0199	0.0200	-0.3	20.0
n-Butylbenzene	Ave	2.283	2.368		0.0207	0.0200	3.7	20.0
1,2-Dichlorobenzene	Ave	1.682	1.709	0.4000	0.0203	0.0200	1.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 240-272636/19 Calibration Date: 03/30/2017 17:09

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256172.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1717	0.1951	0.0500	0.0227	0.0200	13.6	50.0
1,2,4-Trichlorobenzene	Ave	0.9845	0.9731	0.2000	0.0198	0.0200	-1.2	50.0
Hexachlorobutadiene	Ave	0.4000	0.4373		0.0219	0.0200	9.3	20.0
Naphthalene	Ave	2.520	2.633		0.0209	0.0200	4.5	50.0
1,2,3-Trichlorobenzene	Ave	0.8562	0.8941		0.0209	0.0200	4.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2825	0.2659		0.0155	0.0165	-5.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3288	0.3241		0.0163	0.0165	-1.4	20.0
Toluene-d8 (Surr)	Ave	1.575	1.513		0.0159	0.0165	-3.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5951	0.5598		0.0155	0.0165	-5.9	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: BFB3524.D BFB Injection Date: 04/19/2017

Instrument ID: A3UX12 BFB Injection Time: 16:57

Analysis Batch No.: 275429

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.9	
75	30.0 - 60.0 % of mass 95	45.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	78.6	
175	5.0 - 9.0 % of mass 174	5.8	(7.4) 1
176	95.0 - 101.0 % of mass 174	77.4	(98.5) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-275429/3	U1256594.D	04/19/2017	17:23
	LCS 240-275429/4	U1256595.D	04/19/2017	17:45
	CCV 240-275429/5	U1256596.D	04/19/2017	18:09
	MB 240-275429/7	U1256598.D	04/19/2017	18:58
TB-041317	240-78169-1	U1256599.D	04/19/2017	19:23
MRC-MW80B-041417	240-78169-4	U1256601.D	04/19/2017	20:12
MRC-MW22B-041417	240-78169-5	U1256602.D	04/19/2017	20:35
MRC-MW93A-041417	240-78169-7	U1256604.D	04/19/2017	21:22
MRC-MW70A-041417	240-78169-8	U1256605.D	04/19/2017	21:47
MRC-MW70B-041417	240-78169-9	U1256606.D	04/19/2017	22:10
MRC-MW10A-041417	240-78169-10	U1256607.D	04/19/2017	22:32
MRC-MW08A-041417	240-78169-11	U1256608.D	04/19/2017	22:57
MRC-MW02A-041417	240-78169-12	U1256609.D	04/19/2017	23:22
MRC-MW109B-041317	240-78169-2	U1256613.D	04/20/2017	01:02
MRC-MW109A-041417	240-78169-6	U1256614.D	04/20/2017	01:26
MRC-MW109B-041317 MS	240-78169-2 MS	U1256615.D	04/20/2017	01:51
MRC-MW109B-041317 MSD	240-78169-2 MSD	U1256616.D	04/20/2017	02:16

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275429/3 Calibration Date: 04/19/2017 17:23

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256594.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4272	0.4506	0.1000	0.0211	0.0200	5.5	20.0
Chloromethane	Ave	0.5137	0.4916	0.1000	0.0191	0.0200	-4.3	20.0
Vinyl chloride	Ave	0.5242	0.4973	0.1000	0.0190	0.0200	-5.1	20.0
Butadiene	Ave	0.5003	0.4259		0.0170	0.0200	-14.9	20.0
Bromomethane	Ave	0.2623	0.2572	0.0500	0.0196	0.0200	-1.9	20.0
Chloroethane	Ave	0.3109	0.3002	0.0500	0.0193	0.0200	-3.4	20.0
Dichlorofluoromethane	Ave	0.6506	0.6279		0.0193	0.0200	-3.5	20.0
Trichlorofluoromethane	Ave	0.4471	0.5079	0.1000	0.0227	0.0200	13.6	20.0
Ethyl ether	Ave	0.2663	0.2612		0.0196	0.0200	-1.9	20.0
Acrolein	Ave	0.0402	0.0426		0.106	0.100	6.0	50.0
1,1-Dichloroethene	Ave	0.5883	0.5758	0.1000	0.0196	0.0200	-2.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3173	0.3352	0.0500	0.0211	0.0200	5.6	20.0
Acetone	Lin1		0.1063	0.0100	0.0358	0.0400	-10.5	50.0
Iodomethane	Ave	0.5346	0.4981		0.0186	0.0200	-6.8	20.0
Carbon disulfide	Ave	1.114	1.262	0.1000	0.0226	0.0200	13.2	20.0
3-Chloro-1-propene	Ave	0.3444	0.4161		0.0242	0.0200	20.8*	20.0
Methyl acetate	Ave	0.2143	0.1885	0.1000	0.0879	0.100	-12.1	20.0
Methylene Chloride	Lin1		0.4364	0.1000	0.0165	0.0200	-17.7	50.0
2-Methyl-2-propanol	Ave	0.0293	0.0260		0.178	0.200	-11.1	50.0
Acrylonitrile	Ave	0.1241	0.1076		0.173	0.200	-13.3	20.0
Methyl tert-butyl ether	Ave	0.7997	0.7768	0.1000	0.0194	0.0200	-2.9	20.0
trans-1,2-Dichloroethene	Ave	0.4451	0.4426	0.1000	0.0199	0.0200	-0.6	20.0
Hexane	Ave	0.3578	0.3463		0.0194	0.0200	-3.2	20.0
1,1-Dichloroethane	Ave	0.5536	0.5389	0.2000	0.0195	0.0200	-2.6	20.0
Vinyl acetate	Ave	0.4387	0.4374		0.0199	0.0200	-0.3	50.0
2,2-Dichloropropane	Ave	0.2268	0.2402		0.0212	0.0200	5.9	20.0
cis-1,2-Dichloroethene	Ave	0.4794	0.4718	0.1000	0.0197	0.0200	-1.6	20.0
2-Butanone (MEK)	Ave	0.1484	0.1352	0.0100	0.0365	0.0400	-8.9	20.0
Chlorobromomethane	Ave	0.2696	0.2459		0.0182	0.0200	-8.8	20.0
Tetrahydrofuran	Ave	0.0902	0.0755		0.0335	0.0400	-16.3	20.0
Chloroform	Ave	0.5171	0.5277	0.2000	0.0204	0.0200	2.0	20.0
1,1,1-Trichloroethane	Ave	0.3439	0.3586	0.1000	0.0209	0.0200	4.3	20.0
Cyclohexane	Ave	0.4899	0.4146	0.1000	0.0169	0.0200	-15.4	20.0
1,1-Dichloropropene	Ave	0.4332	0.4371		0.0202	0.0200	0.9	20.0
Carbon tetrachloride	Ave	0.3017	0.3276	0.1000	0.0217	0.0200	8.6	20.0
Isobutyl alcohol	Lin1		0.0070		0.429	0.500	-14.1	20.0
Benzene	Ave	1.387	1.373	0.5000	0.0198	0.0200	-1.0	20.0
1,2-Dichloroethane	Ave	0.3908	0.3903	0.1000	0.0200	0.0200	-0.1	20.0
n-Heptane	Lin1		0.1909		0.0185	0.0200	-7.7	20.0
Trichloroethene	Ave	0.3490	0.3489	0.1500	0.0200	0.0200	-0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275429/3 Calibration Date: 04/19/2017 17:23

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256594.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4444	0.4487	0.1000	0.0202	0.0200	1.0	20.0
1,2-Dichloropropane	Ave	0.3324	0.3285	0.1000	0.0198	0.0200	-1.2	20.0
Dibromomethane	Ave	0.2199	0.2132		0.0194	0.0200	-3.1	20.0
1,4-Dioxane	Lin1		0.0041		0.429	0.400	7.2	50.0
Dichlorobromomethane	Ave	0.3645	0.3773	0.1500	0.0207	0.0200	3.5	20.0
2-Chloroethyl vinyl ether	Ave	0.1221	0.0951		0.0311	0.0400	-22.2*	20.0
cis-1,3-Dichloropropene	Ave	0.4794	0.5176	0.1500	0.0216	0.0200	8.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2708	0.2373	0.0500	0.0351	0.0400	-12.4	20.0
Toluene	Ave	1.925	1.929	0.4000	0.0200	0.0200	0.2	20.0
trans-1,3-Dichloropropene	Lin1		0.5711	0.1000	0.0190	0.0200	-5.2	20.0
Ethyl methacrylate	Ave	0.5175	0.5191		0.0201	0.0200	0.3	20.0
1,1,2-Trichloroethane	Ave	0.3828	0.3754	0.1000	0.0196	0.0200	-1.9	20.0
Tetrachloroethene	Ave	0.4272	0.4510	0.1500	0.0211	0.0200	5.6	20.0
1,3-Dichloropropane	Ave	0.7118	0.7084		0.0199	0.0200	-0.5	20.0
2-Hexanone	Ave	0.2515	0.2345	0.0500	0.0373	0.0400	-6.8	20.0
Chlorodibromomethane	Ave	0.3322	0.3587		0.0216	0.0200	8.0	20.0
Ethylene Dibromide	Ave	0.3707	0.3752		0.0202	0.0200	1.2	20.0
Chlorobenzene	Ave	1.256	1.296	0.3000	0.0206	0.0200	3.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3601	0.3904		0.0217	0.0200	8.4	20.0
Ethylbenzene	Ave	0.6332	0.6740		0.0213	0.0200	6.4	20.0
m-Xylene & p-Xylene	Ave	0.7970	0.8521		0.0214	0.0200	6.9	20.0
o-Xylene	Ave	0.8023	0.8420		0.0210	0.0200	5.0	20.0
Styrene	Ave	1.382	1.481	0.3000	0.0214	0.0200	7.2	20.0
Bromoform	Lin1		0.2040	0.1000	0.0172	0.0200	-14.0	20.0
Isopropylbenzene	Ave	1.832	1.996	0.1000	0.0218	0.0200	8.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9427	0.9075	0.3000	0.0193	0.0200	-3.7	20.0
Bromobenzene	Ave	0.9406	0.9542		0.0203	0.0200	1.4	20.0
1,2,3-Trichloropropane	Ave	0.3053	0.3003		0.0197	0.0200	-1.6	20.0
trans-1,4-Dichloro-2-butene	Qua		0.1489		0.0182	0.0200	-9.0	20.0
N-Propylbenzene	Ave	0.8934	0.9525		0.0213	0.0200	6.6	20.0
2-Chlorotoluene	Ave	0.8085	0.8665		0.0214	0.0200	7.2	20.0
1,3,5-Trimethylbenzene	Ave	2.730	2.857		0.0209	0.0200	4.6	20.0
4-Chlorotoluene	Ave	0.8925	0.9138		0.0205	0.0200	2.4	20.0
tert-Butylbenzene	Ave	2.291	2.382		0.0208	0.0200	4.0	20.0
1,2,4-Trimethylbenzene	Ave	2.938	3.064		0.0209	0.0200	4.3	20.0
sec-Butylbenzene	Ave	3.240	3.363		0.0208	0.0200	3.8	20.0
1,3-Dichlorobenzene	Ave	1.713	1.749	0.6000	0.0204	0.0200	2.1	20.0
4-Isopropyltoluene	Ave	2.833	2.987		0.0211	0.0200	5.4	20.0
1,4-Dichlorobenzene	Ave	1.824	1.819	0.5000	0.0199	0.0200	-0.3	20.0
n-Butylbenzene	Ave	2.283	2.395		0.0210	0.0200	4.9	20.0
1,2-Dichlorobenzene	Ave	1.682	1.685	0.4000	0.0200	0.0200	0.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275429/3 Calibration Date: 04/19/2017 17:23

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256594.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1717	0.1698	0.0500	0.0198	0.0200	-1.1	50.0
1,2,4-Trichlorobenzene	Ave	0.9845	0.9732	0.2000	0.0198	0.0200	-1.1	50.0
Hexachlorobutadiene	Ave	0.4000	0.3934		0.0197	0.0200	-1.7	20.0
Naphthalene	Ave	2.520	2.506		0.0199	0.0200	-0.5	50.0
1,2,3-Trichlorobenzene	Ave	0.8562	0.8508		0.0199	0.0200	-0.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2825	0.2683		0.0157	0.0165	-5.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3288	0.3020		0.0152	0.0165	-8.2	20.0
Toluene-d8 (Surr)	Ave	1.575	1.551		0.0163	0.0165	-1.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5951	0.5725		0.0159	0.0165	-3.8	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: BFB5200.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX16 BFB Injection Time: 13:36

Analysis Batch No.: 272263

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	76.3	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272263/6	UXM1388.D	03/29/2017	14:02
	STD8260 240-272263/7	UXM1389.D	03/29/2017	14:25
	STD8260 240-272263/8	UXM1390.D	03/29/2017	14:48
	ICIS 240-272263/9	UXM1391.D	03/29/2017	15:11
	STD8260 240-272263/10	UXM1392.D	03/29/2017	15:34
	STD8260 240-272263/11	UXM1393.D	03/29/2017	15:56
	ICV 240-272263/20	UXM1402.D	03/29/2017	19:27

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2774 0.3284	0.2911	0.3262	0.3261	0.3503	Ave		0.3166			0.1000	8.5		20.0			
Chloromethane	0.4243 0.3631	0.3916	0.3790	0.3773	0.3916	Ave		0.3878			0.1000	5.4		20.0			
Vinyl chloride	0.4087 0.3605	0.3465	0.3612	0.3711	0.3829	Ave		0.3718			0.1000	5.8		20.0			
Butadiene	0.2591 0.3141	0.2556	0.2954	0.3159	0.3217	Ave		0.2937				10.0		20.0			
Bromomethane	0.2462 0.2319	0.2336	0.2325	0.2219	0.2327	Ave		0.2332			0.0500	3.3		20.0			
Chloroethane	0.2194 0.2239	0.1843	0.2273	0.2249	0.2316	Ave		0.2186			0.0500	7.9		20.0			
Dichlorofluoromethane	0.6271 0.5827	0.5458	0.5988	0.5826	0.6147	Ave		0.5919				4.8		20.0			
Trichlorofluoromethane	0.3569 0.4333	0.3855	0.4259	0.4347	0.4592	Ave		0.4159			0.1000	9.0		20.0			
Ethyl ether	0.2759 0.2366	0.2379	0.2543	0.2398	0.2563	Ave		0.2501				6.1		20.0			
Acrolein	0.0384 0.0319	0.0312	0.0336	0.0327	0.0346	Ave		0.0337				7.6		20.0			
1,1-Dichloroethene	0.3099 0.2842	0.2647	0.2795	0.2888	0.2999	Ave		0.2878			0.1000	5.5		20.0			
Acetone	+++++ 0.0788	0.1310	0.0907	0.0866	0.0925	Lin1	0.1043	0.0835			0.0100				0.9940		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0921 0.1845	0.1404	0.1678	0.1754	0.1718	Lin1	-0.045	0.1793			0.0500				0.9990		0.9900
Iodomethane	0.4817 0.4537	0.4441	0.4516	0.4592	0.4825	Ave		0.4621				3.5		20.0			
Carbon disulfide	1.0384 0.9437	0.8950	0.9260	0.9397	0.9657	Ave		0.9514			0.1000	5.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2088 0.1945	0.1889	0.2169	0.1917	0.2068	Ave		0.2013				5.5		20.0			
Methyl acetate	0.1785 0.1542	0.1585	0.1607	0.1601	0.1623	Ave		0.1624			0.1000	5.1		20.0			
Methylene Chloride	+++++ 0.3133	0.8626	0.3413	0.3195	0.3388	Lin1	0.5333	0.3080			0.1000				0.9980		0.9900
2-Methyl-2-propanol	0.0315 0.0189	0.0213	0.0195	0.0198	0.0198	Lin1	0.0481	0.0192							0.9990		0.9900
Acrylonitrile	0.0953 0.0828	0.0857	0.0840	0.0837	0.0870	Ave		0.0864				5.4		20.0			
trans-1,2-Dichloroethene	0.3210 0.3162	0.2997	0.3159	0.3101	0.3333	Ave		0.3161			0.1000	3.5		20.0			
Methyl tert-butyl ether	0.8745 0.8162	0.7894	0.8187	0.8126	0.8733	Ave		0.8308			0.1000	4.2		20.0			
Hexane	0.2939 0.2948	0.2970	0.2722	0.2810	0.2994	Ave		0.2897				3.7		20.0			
1,1-Dichloroethane	0.5521 0.5175	0.4733	0.5210	0.5179	0.5529	Ave		0.5224			0.2000	5.6		20.0			
Vinyl acetate	0.4516 0.4009	0.3877	0.4037	0.3918	0.4198	Ave		0.4093				5.8		20.0			
2,2-Dichloropropane	0.3794 0.3532	0.3453	0.3576	0.3513	0.3722	Ave		0.3598				3.7		20.0			
2-Butanone (MEK)	0.1322 0.0875	0.0867	0.0946	0.0931	0.0992	Ave		0.0989			0.0100	17.1		20.0			
cis-1,2-Dichloroethene	0.3587 0.3537	0.3367	0.3467	0.3429	0.3721	Ave		0.3518			0.1000	3.6		20.0			
Chlorobromomethane	0.1291 0.1502	0.1431	0.1505	0.1467	0.1612	Ave		0.1468				7.2		20.0			
Tetrahydrofuran	+++++ 0.0556	0.0583	0.0569	0.0577	0.0598	Ave		0.0577				2.7		20.0			
Chloroform	0.5471 0.5284	0.5180	0.5158	0.5179	0.5629	Ave		0.5317			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.4142 0.4390	0.4248	0.4405	0.4404	0.4618	Ave		0.4368			0.1000	3.7		20.0			
Cyclohexane	0.4351 0.4326	0.4108	0.4111	0.4328	0.4318	Ave		0.4257			0.1000	2.7		20.0			
1,1-Dichloropropene	0.3936 0.4033	0.3495	0.3997	0.4002	0.4212	Ave		0.3946				6.1		20.0			
Carbon tetrachloride	0.3835 0.3598	0.3382	0.3513	0.3550	0.3753	Ave		0.3605			0.1000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0065 0.0062	0.0053	0.0067	0.0067	0.0067	Ave		0.0063				8.6		20.0			
Benzene	1.3724 1.2227	1.1219	1.2218	1.2050	1.2842	Ave		1.2380			0.5000	6.8		20.0			
1,2-Dichloroethane	0.3910 0.3932	0.3705	0.4014	0.3955	0.4214	Ave		0.3955			0.1000	4.2		20.0			
n-Heptane	+++++ 0.1323	0.7828	0.1743	0.1452	0.1373	Lin1	0.6515	0.1191							0.9980		0.9900
Trichloroethene	0.3404 0.3089	0.2946	0.3129	0.3013	0.3193	Ave		0.3129			0.1500	5.1		20.0			
Methylcyclohexane	0.3962 0.4020	0.4164	0.3842	0.3811	0.4140	Ave		0.3990			0.1000	3.7		20.0			
1,2-Dichloropropane	0.2659 0.2739	0.2677	0.2805	0.2770	0.2933	Ave		0.2764			0.1000	3.6		20.0			
Dibromomethane	0.1841 0.1580	0.1557	0.1636	0.1609	0.1664	Ave		0.1648				6.2		20.0			
1,4-Dioxane	0.0022 0.0024	0.0021	0.0025	0.0025	0.0025	Ave		0.0024				6.7		20.0			
Dichlorobromomethane	0.3832 0.3821	0.3551	0.3780	0.3743	0.4067	Ave		0.3799			0.1500	4.4		20.0			
2-Chloroethyl vinyl ether	0.1585 0.1357	0.1250	0.1429	0.1377	0.1476	Ave		0.1413				8.0		20.0			
cis-1,3-Dichloropropene	0.4496 0.4653	0.4268	0.4592	0.4537	0.4927	Ave		0.4579			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.2293 0.1854	0.2069	0.2005	0.2004	0.2030	Ave		0.2043			0.0500	7.0		20.0			
Toluene	1.5034 1.5997	1.3726	1.5269	1.5051	1.6319	Ave		1.5233			0.4000	6.0		20.0			
trans-1,3-Dichloropropene	0.4548 0.4818	0.4333	0.4674	0.4569	0.4997	Ave		0.4656			0.1000	5.0		20.0			
Ethyl methacrylate	0.3803 0.3740	0.3185	0.3922	0.3811	0.3898	Ave		0.3726				7.3		20.0			
1,1,2-Trichloroethane	0.2635 0.2687	0.2498	0.2723	0.2568	0.2811	Ave		0.2654			0.1000	4.2		20.0			
1,3-Dichloropropane	0.5065 0.4731	0.4472	0.4815	0.4621	0.4985	Ave		0.4781				4.6		20.0			
Tetrachloroethene	0.2542 0.2756	0.2173	0.2564	0.2573	0.2785	Ave		0.2566			0.1500	8.5		20.0			
2-Hexanone	0.2078 0.1535	0.1472	0.1718	0.1662	0.1729	Ave		0.1699			0.0500	12.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2932 0.3159	0.2671	0.2991	0.3025	0.3261	Ave		0.3007				6.8		20.0			
Ethylene Dibromide	0.2219 0.2665	0.2582	0.2665	0.2598	0.2776	Ave		0.2584				7.4		20.0			
Chlorobenzene	1.0529 0.9678	0.8811	0.9699	0.9300	1.0081	Ave		0.9683			0.3000	6.2		20.0			
1,1,1,2-Tetrachloroethane	0.3063 0.3556	0.3094	0.3415	0.3391	0.3631	Ave		0.3358				7.0		20.0			
Ethylbenzene	0.4877 0.5488	0.4527	0.5317	0.5213	0.5696	Ave		0.5186				8.2		20.0			
m-Xylene & p-Xylene	0.6411 0.6835	0.5972	0.6660	0.6424	0.7068	Ave		0.6562				5.8		20.0			
o-Xylene	0.6365 0.7126	0.5894	0.6714	0.6629	0.7222	Ave		0.6658				7.4		20.0			
Styrene	1.1100 1.1992	0.9655	1.1476	1.1234	1.2429	Ave		1.1314			0.3000	8.4		20.0			
Bromoform	+++++ 0.1965	0.1499	0.1847	0.1835	0.2004	Ave		0.1830			0.1000	10.9		20.0			
Isopropylbenzene	1.5431 1.7556	1.4920	1.6914	1.6192	1.7882	Ave		1.6482			0.1000	7.1		20.0			
1,1,2,2-Tetrachloroethane	0.6083 0.5668	0.5706	0.5874	0.5668	0.5898	Ave		0.5816			0.3000	2.8		20.0			
Bromobenzene	0.7214 0.6938	0.6411	0.6888	0.6748	0.7324	Ave		0.6921				4.7		20.0			
1,2,3-Trichloropropane	0.1987 0.1777	0.1412	0.1899	0.1788	0.1886	Ave		0.1791				11.2		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1649	0.1477	0.1661	0.1620	0.1691	Ave		0.1620				5.2		20.0			
N-Propylbenzene	0.6918 0.7372	0.6194	0.7268	0.7170	0.7728	Ave		0.7108				7.3		20.0			
2-Chlorotoluene	0.5891 0.6524	0.6072	0.6547	0.6350	0.6848	Ave		0.6372				5.4		20.0			
1,3,5-Trimethylbenzene	2.0957 2.3598	2.0166	2.3008	2.2541	2.4702	Ave		2.2495				7.5		20.0			
4-Chlorotoluene	0.6633 0.6930	0.6450	0.6920	0.6739	0.7178	Ave		0.6808				3.8		20.0			
tert-Butylbenzene	1.7635 1.9140	1.6247	1.8363	1.8095	2.0418	Ave		1.8316				7.7		20.0			
1,2,4-Trimethylbenzene	2.3247 2.5091	2.1504	2.4221	2.3653	2.6095	Ave		2.3968				6.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.5150 2.6729	2.2201	2.4881	2.5159	2.6914	Ave		2.5172				6.7		20.0			
1,3-Dichlorobenzene	1.4670 1.3679	1.2338	1.3477	1.3117	1.4211	Ave		1.3582			0.6000	6.0		20.0			
4-Isopropyltoluene	2.1129 2.3459	1.8695	2.2357	2.2077	2.3896	Ave		2.1935				8.5		20.0			
1,4-Dichlorobenzene	1.4955 1.4123	1.3794	1.3886	1.3663	1.4845	Ave		1.4211			0.5000	3.9		20.0			
n-Butylbenzene	1.7339 1.9743	1.5905	1.8048	1.8379	1.9843	Ave		1.8210				8.2		20.0			
1,2-Dichlorobenzene	1.2562 1.3098	1.1778	1.2902	1.2925	1.3695	Ave		1.2827			0.4000	4.9		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1052	0.0364	0.0995	0.1035	0.1060	Lin1	-0.070	0.1069			0.0500				1.0000		0.9900
1,2,4-Trichlorobenzene	0.6877 0.6736	0.5503	0.6622	0.6682	0.6940	Ave		0.6560			0.2000	8.1		20.0			
Hexachlorobutadiene	0.2877 0.2599	0.2632	0.2675	0.2544	0.2579	Ave		0.2651				4.5		20.0			
Naphthalene	1.6027 1.5994	1.4701	1.5619	1.6108	1.6507	Ave		1.5826				3.9		20.0			
1,2,3-Trichlorobenzene	0.6150 0.5347	0.5152	0.5434	0.5219	0.5373	Ave		0.5446				6.6		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2685	0.2395	0.2729	0.2637	0.2857	Ave		0.2661				6.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3228	0.3015	0.3260	0.3254	0.3428	Ave		0.3237				4.5		20.0			
Toluene-d8 (Surr)	+++++ 1.3214	1.1456	1.2974	1.2474	1.3716	Ave		1.2767				6.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5071	0.4952	0.5030	0.4775	0.5277	Ave		0.5021				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5179 847120	11017	128360	253224	550892	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	7922 936755	14820	149125	293002	615885	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7630 930046	13114	142124	288166	602218	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	4838 810331	9674	116239	245302	505876	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4597 598347	8841	91460	172325	365990	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4096 577536	6974	89417	174639	364276	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11708 1503160	20654	235601	452370	966660	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	6664 1117927	14588	167580	337517	722089	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5151 610299	9003	100039	186234	403120	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	3583 411959	5902	66140	127012	271894	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	5786 733110	10015	109963	224216	471677	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 406505	9915	71393	134509	291061	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin1	1719 475836	5314	66002	136175	270113	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	8993 1170460	16807	177685	356561	758795	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19388 2434531	33870	364318	729668	1518632	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	3898 501808	7147	85345	148857	325226	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	16660 1988424	29982	316228	621600	1276312	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 808307	32644	134304	248096	532778	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Lin1	5873 488818	8043	76560	153795	312048	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	17798 2135402	32438	330543	649564	1367386	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	5994 815699	11343	124281	240825	524179	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	16327 2105680	29872	322103	631005	1373337	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	5487 760574	11238	107113	218153	470888	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10307 1334943	17911	204999	402129	869459	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	8432 1034200	14672	158843	304201	660178	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7083 911074	13066	140701	272751	585273	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	4935 451516	6565	74473	144524	312018	1.00 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	6697 912453	12740	136411	266288	585132	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	2410 387412	5415	59207	113893	253511	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 286982	4411	44754	89633	188065	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	10215 1363021	19603	202957	402177	885179	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	7733 1132620	16074	173321	341980	726229	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	8124 1115970	15546	161743	336024	679066	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7348 1040465	13224	157266	310724	662295	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7160 928150	12799	138203	275660	590240	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3024 400360	5010	65708	129156	263648	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	25623 3154247	42454	480702	935627	2019515	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	7301 1014431	14020	157922	307103	662756	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 341428	29623	68593	112761	215843	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6355 796803	11148	123108	233955	502151	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7397 1037120	15758	151173	295935	651030	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4964 706657	10130	110357	215114	461237	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3437 407486	5893	64377	124908	261655	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	834 123335	1605	19655	38426	78547	10.0 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7155 985845	13436	148706	290638	639618	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5918 700370	9463	112468	213909	464280	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8395 1200301	16151	180675	352263	774818	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8562 956773	15661	157774	311153	638574	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	24459 3381801	43972	506034	999549	2175973	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7400 1018460	13881	154908	303427	666263	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6188 790543	10204	129971	253071	519797	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4287 568086	8004	90248	170548	374844	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8240 1000041	14327	159567	306909	664700	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	4136 582643	6962	84984	170857	371340	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	6760 648844	9432	113881	220698	461028	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	4770 667908	8556	99130	200923	434766	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	3610 563465	8273	88330	172552	370102	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	17130 2045855	28228	321425	617603	1344142	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	4983 751801	9911	113169	225209	484147	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	7935 1160183	14503	176218	346211	759461	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10431 1444911	19132	220713	426620	942436	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10356 1506460	18882	222497	440251	962956	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	18059 2535054	30930	380327	746075	1657306	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 415424	4801	61205	121879	267228	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25106 3711391	47797	560540	1075361	2384274	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	5713 737968	10448	115737	225373	475002	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	6775 903324	11739	135717	268325	589896	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1866 231422	2585	37411	71109	151875	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 214760	2705	32721	64414	136212	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6497 959812	11342	143202	285089	622432	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	5533 849427	11118	129000	252467	551504	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	19682 3072471	36925	453357	896247	1989434	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	6229 902216	11811	136344	267964	578143	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	16562 2492024	29749	361820	719500	1644461	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	21832 3266809	39375	477256	940469	2101646	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	23620 3480080	40652	490263	1000351	2167632	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13777 1780923	22592	265561	521548	1144570	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	19843 3054252	34232	440532	877803	1924581	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	14045 1838844	25258	273613	543264	1195580	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	16284 2570482	29124	355628	730792	1598143	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	11798 1705302	21566	254218	513920	1102993	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 136942	667	19605	41171	85385	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	6459 876963	10076	130479	265671	558939	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	2702 338447	4820	52710	101162	207737	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	15052 2082436	26918	307761	640457	1329426	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	5776 696197	9433	107067	207510	432770	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 692751	9065	107373	204745	449310	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 832640	11411	128256	252642	539067	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2793316	36701	429977	828458	1828800	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1072081	15864	166696	317105	703668	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2754	0.1000	0.0174	0.0200	-13.0	20.0
Chloromethane	Ave	0.3878	0.3485	0.1000	0.0180	0.0200	-10.1	20.0
Vinyl chloride	Ave	0.3718	0.3559	0.1000	0.0191	0.0200	-4.3	20.0
Butadiene	Ave	0.2937	0.2643		0.0180	0.0200	-10.0	30.0
Bromomethane	Ave	0.2332	0.2350	0.0500	0.0202	0.0200	0.8	20.0
Chloroethane	Ave	0.2186	0.2331	0.0500	0.0213	0.0200	6.7	20.0
Dichlorofluoromethane	Ave	0.5919	0.5918		0.0200	0.0200	-0.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.4116	0.1000	0.0198	0.0200	-1.1	20.0
Ethyl ether	Ave	0.2501	0.2556		0.0204	0.0200	2.2	20.0
Acrolein	Ave	0.0337	0.0396		0.117	0.100	17.5	50.0
1,1-Dichloroethene	Ave	0.2878	0.2795	0.1000	0.0194	0.0200	-2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1533	0.0500	0.0174	0.0200	-13.2	20.0
Acetone	Lin1		0.0696	0.0100	0.0321	0.0400	-19.8	50.0
Iodomethane	Ave	0.4621	0.4372		0.0189	0.0200	-5.4	20.0
Carbon disulfide	Ave	0.9514	0.8428	0.1000	0.0177	0.0200	-11.4	20.0
3-Chloro-1-propene	Ave	0.2013	0.2425		0.0241	0.0200	20.5*	20.0
Methyl acetate	Ave	0.1624	0.1554	0.1000	0.0957	0.100	-4.3	20.0
Methylene Chloride	Lin1		0.3421	0.1000	0.0205	0.0200	2.4	50.0
2-Methyl-2-propanol	Lin1		0.0196		0.202	0.200	0.8	50.0
Acrylonitrile	Ave	0.0864	0.0848		0.196	0.200	-1.9	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.3170	0.1000	0.0201	0.0200	0.3	20.0
Methyl tert-butyl ether	Ave	0.8308	0.8348	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2897	0.2684		0.0185	0.0200	-7.4	20.0
1,1-Dichloroethane	Ave	0.5224	0.5289	0.2000	0.0202	0.0200	1.2	20.0
Vinyl acetate	Ave	0.4093	0.4128		0.0202	0.0200	0.9	50.0
2,2-Dichloropropane	Ave	0.3598	0.3379		0.0188	0.0200	-6.1	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3547	0.1000	0.0202	0.0200	0.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0855	0.0100	0.0346	0.0400	-13.6	20.0
Chlorobromomethane	Ave	0.1468	0.1543		0.0210	0.0200	5.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0579		0.0401	0.0400	0.3	20.0
Chloroform	Ave	0.5317	0.5428	0.2000	0.0204	0.0200	2.1	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4432	0.1000	0.0203	0.0200	1.5	20.0
Cyclohexane	Ave	0.4257	0.3980	0.1000	0.0187	0.0200	-6.5	20.0
1,1-Dichloropropene	Ave	0.3946	0.4168		0.0211	0.0200	5.6	20.0
Carbon tetrachloride	Ave	0.3605	0.3553	0.1000	0.0197	0.0200	-1.4	20.0
Isobutyl alcohol	Ave	0.0063	0.0067		0.531	0.500	6.3	20.0
1,2-Dichloroethane	Ave	0.3955	0.4072	0.1000	0.0206	0.0200	2.9	20.0
Benzene	Ave	1.238	1.256	0.5000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.1419		0.0184	0.0200	-8.2	20.0
Trichloroethene	Ave	0.3129	0.3131	0.1500	0.0200	0.0200	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3824	0.1000	0.0192	0.0200	-4.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2828	0.1000	0.0205	0.0200	2.3	20.0
Dibromomethane	Ave	0.1648	0.1637		0.0199	0.0200	-0.6	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.396	0.400	-1.0	50.0
Dichlorobromomethane	Ave	0.3799	0.3911	0.1500	0.0206	0.0200	3.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1427		0.0202	0.0200	1.0	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4754	0.1500	0.0208	0.0200	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2065	0.0500	0.0404	0.0400	1.1	20.0
Toluene	Ave	1.523	1.556	0.4000	0.0204	0.0200	2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4662	0.1000	0.0200	0.0200	0.1	20.0
Ethyl methacrylate	Ave	0.3726	0.3982		0.0214	0.0200	6.8	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2798	0.1000	0.0211	0.0200	5.4	20.0
1,3-Dichloropropane	Ave	0.4781	0.4821		0.0202	0.0200	0.8	20.0
Tetrachloroethene	Ave	0.2566	0.2648	0.1500	0.0206	0.0200	3.2	20.0
2-Hexanone	Ave	0.1699	0.1662	0.0500	0.0391	0.0400	-2.2	20.0
Chlorodibromomethane	Ave	0.3007	0.3087		0.0205	0.0200	2.7	20.0
Ethylene Dibromide	Ave	0.2584	0.2744		0.0212	0.0200	6.2	20.0
Chlorobenzene	Ave	0.9683	0.9766	0.3000	0.0202	0.0200	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3543		0.0211	0.0200	5.5	20.0
Ethylbenzene	Ave	0.5186	0.5447		0.0210	0.0200	5.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6832		0.0208	0.0200	4.1	20.0
o-Xylene	Ave	0.6658	0.6969		0.0209	0.0200	4.7	20.0
Styrene	Ave	1.131	1.212	0.3000	0.0214	0.0200	7.1	20.0
Bromoform	Ave	0.1830	0.1912	0.1000	0.0209	0.0200	4.5	20.0
Isopropylbenzene	Ave	1.648	1.723	0.1000	0.0209	0.0200	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6059	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.6921	0.7158		0.0207	0.0200	3.4	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1976		0.0221	0.0200	10.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1763		0.0218	0.0200	8.8	20.0
N-Propylbenzene	Ave	0.7108	0.7354		0.0207	0.0200	3.5	20.0
2-Chlorotoluene	Ave	0.6372	0.6789		0.0213	0.0200	6.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.355		0.0209	0.0200	4.7	20.0
4-Chlorotoluene	Ave	0.6808	0.7194		0.0211	0.0200	5.7	20.0
tert-Butylbenzene	Ave	1.832	1.861		0.0203	0.0200	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.511		0.0210	0.0200	4.8	20.0
sec-Butylbenzene	Ave	2.517	2.551		0.0203	0.0200	1.3	20.0
1,3-Dichlorobenzene	Ave	1.358	1.413	0.6000	0.0208	0.0200	4.0	20.0
4-Isopropyltoluene	Ave	2.194	2.236		0.0204	0.0200	1.9	20.0
1,4-Dichlorobenzene	Ave	1.421	1.444	0.5000	0.0203	0.0200	1.6	20.0
n-Butylbenzene	Ave	1.821	1.891		0.0208	0.0200	3.8	20.0
1,2-Dichlorobenzene	Ave	1.283	1.343	0.4000	0.0209	0.0200	4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1071	0.0500	0.0207	0.0200	3.4	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6678	0.2000	0.0204	0.0200	1.8	50.0
Hexachlorobutadiene	Ave	0.2651	0.2451		0.0185	0.0200	-7.6	20.0
Naphthalene	Ave	1.583	1.643		0.0208	0.0200	3.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5563		0.0204	0.0200	2.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2578		0.0194	0.0200	-3.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3176		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.277	1.236		0.0194	0.0200	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4880		0.0194	0.0200	-2.8	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: BFB5217.D BFB Injection Date: 04/18/2017

Instrument ID: A3UX16 BFB Injection Time: 09:42

Analysis Batch No.: 275134

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.8	
75	30.0 - 60.0 % of mass 95	49.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.7	(1.0) 1
174	50.0 - 120.00 % of mass 95	72.2	
175	5.0 - 9.0 % of mass 174	5.4	(7.5) 1
176	95.0 - 101.0 % of mass 174	71.3	(98.7) 1
177	5.0 - 9.0 % of mass 176	4.7	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-275134/3	UXM1762.D	04/18/2017	10:07
	CCV 240-275134/5	UXM1764.D	04/18/2017	10:54
	MB 240-275134/7	UXM1766.D	04/18/2017	11:40
	LCS 240-275134/8	UXM1767.D	04/18/2017	12:03
MRC-MW12B-041217	240-78035-2	UXM1768.D	04/18/2017	12:48
MRC-MW12B-041217 MS	240-78035-2 MS	UXM1769.D	04/18/2017	13:10
MRC-MW12B-041217 MSD	240-78035-2 MSD	UXM1770.D	04/18/2017	13:33

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275134/3 Calibration Date: 04/18/2017 10:07

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1762.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.3275	0.1000	0.0207	0.0200	3.5	20.0
Chloromethane	Ave	0.3878	0.3147	0.1000	0.0162	0.0200	-18.9	20.0
Vinyl chloride	Ave	0.3718	0.3449	0.1000	0.0186	0.0200	-7.2	20.0
Butadiene	Ave	0.2937	0.3315		0.0226	0.0200	12.9	20.0
Bromomethane	Ave	0.2332	0.2020	0.0500	0.0173	0.0200	-13.4	20.0
Chloroethane	Ave	0.2186	0.2151	0.0500	0.0197	0.0200	-1.6	20.0
Dichlorofluoromethane	Ave	0.5919	0.4911		0.0166	0.0200	-17.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.4122	0.1000	0.0198	0.0200	-0.9	20.0
Ethyl ether	Ave	0.2501	0.2316		0.0185	0.0200	-7.4	20.0
Acrolein	Ave	0.0337	0.0336		0.0996	0.100	-0.4	50.0
1,1-Dichloroethene	Ave	0.2878	0.2608	0.1000	0.0181	0.0200	-9.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.2030	0.0500	0.0229	0.0200	14.5	20.0
Acetone	Lin1		0.0663	0.0100	0.0305	0.0400	-23.8	50.0
Iodomethane	Ave	0.4621	0.3997		0.0173	0.0200	-13.5	20.0
Carbon disulfide	Ave	0.9514	0.8431	0.1000	0.0177	0.0200	-11.4	20.0
3-Chloro-1-propene	Ave	0.2013	0.1718		0.0171	0.0200	-14.7	20.0
Methyl acetate	Ave	0.1624	0.1500	0.1000	0.0924	0.100	-7.6	20.0
Methylene Chloride	Lin1		0.2931	0.1000	0.0173	0.0200	-13.5	50.0
2-Methyl-2-propanol	Lin1		0.0181		0.186	0.200	-7.2	50.0
Acrylonitrile	Ave	0.0864	0.0782		0.181	0.200	-9.4	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.2695	0.1000	0.0171	0.0200	-14.7	20.0
Methyl tert-butyl ether	Ave	0.8308	0.7175	0.1000	0.0173	0.0200	-13.6	20.0
Hexane	Ave	0.2897	0.3155		0.0218	0.0200	8.9	20.0
1,1-Dichloroethane	Ave	0.5224	0.4694	0.2000	0.0180	0.0200	-10.2	20.0
Vinyl acetate	Ave	0.4093	0.3649		0.0178	0.0200	-10.8	50.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3056	0.1000	0.0174	0.0200	-13.1	20.0
2,2-Dichloropropane	Ave	0.3598	0.3177		0.0177	0.0200	-11.7	20.0
2-Butanone (MEK)	Ave	0.0989	0.0815	0.0100	0.0330	0.0400	-17.6	20.0
Chlorobromomethane	Ave	0.1468	0.1327		0.0181	0.0200	-9.6	20.0
Tetrahydrofuran	Ave	0.0577	0.0565		0.0392	0.0400	-2.0	20.0
Chloroform	Ave	0.5317	0.4655	0.2000	0.0175	0.0200	-12.4	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.3999	0.1000	0.0183	0.0200	-8.4	20.0
Cyclohexane	Ave	0.4257	0.4351	0.1000	0.0204	0.0200	2.2	20.0
1,1-Dichloropropene	Ave	0.3946	0.3593		0.0182	0.0200	-8.9	20.0
Carbon tetrachloride	Ave	0.3605	0.3175	0.1000	0.0176	0.0200	-11.9	20.0
Isobutyl alcohol	Ave	0.0063	0.0059		0.465	0.500	-6.9	20.0
1,2-Dichloroethane	Ave	0.3955	0.3505	0.1000	0.0177	0.0200	-11.4	20.0
Benzene	Ave	1.238	1.064	0.5000	0.0172	0.0200	-14.0	20.0
n-Heptane	Lin1		0.1679		0.0227	0.0200	13.6	20.0
Trichloroethene	Ave	0.3129	0.2651	0.1500	0.0169	0.0200	-15.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275134/3 Calibration Date: 04/18/2017 10:07

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1762.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.4148	0.1000	0.0208	0.0200	4.0	20.0
1,2-Dichloropropane	Ave	0.2764	0.2452	0.1000	0.0177	0.0200	-11.3	20.0
Dibromomethane	Ave	0.1648	0.1364		0.0166	0.0200	-17.2	20.0
1,4-Dioxane	Ave	0.0024	0.0021		0.345	0.400	-13.6	50.0
Dichlorobromomethane	Ave	0.3799	0.3147	0.1500	0.0166	0.0200	-17.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1219		0.0345	0.0400	-13.7	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.3868	0.1500	0.0169	0.0200	-15.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.1732	0.0500	0.0339	0.0400	-15.2	20.0
Toluene	Ave	1.523	1.455	0.4000	0.0191	0.0200	-4.5	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4446	0.1000	0.0191	0.0200	-4.5	20.0
Ethyl methacrylate	Ave	0.3726	0.3605		0.0193	0.0200	-3.3	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2594	0.1000	0.0195	0.0200	-2.3	20.0
1,3-Dichloropropane	Ave	0.4781	0.4637		0.0194	0.0200	-3.0	20.0
Tetrachloroethene	Ave	0.2566	0.2527	0.1500	0.0197	0.0200	-1.5	20.0
2-Hexanone	Ave	0.1699	0.1513	0.0500	0.0356	0.0400	-11.0	20.0
Chlorodibromomethane	Ave	0.3007	0.2838		0.0189	0.0200	-5.6	20.0
Ethylene Dibromide	Ave	0.2584	0.2528		0.0196	0.0200	-2.2	20.0
Chlorobenzene	Ave	0.9683	0.8902	0.3000	0.0184	0.0200	-8.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3185		0.0190	0.0200	-5.2	20.0
Ethylbenzene	Ave	0.5186	0.4999		0.0193	0.0200	-3.6	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6190		0.0189	0.0200	-5.7	20.0
o-Xylene	Ave	0.6658	0.6341		0.0190	0.0200	-4.8	20.0
Styrene	Ave	1.131	1.054	0.3000	0.0186	0.0200	-6.9	20.0
Bromoform	Ave	0.1830	0.1651	0.1000	0.0180	0.0200	-9.8	20.0
Isopropylbenzene	Ave	1.648	1.564	0.1000	0.0190	0.0200	-5.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.5669	0.3000	0.0195	0.0200	-2.5	20.0
Bromobenzene	Ave	0.6921	0.6410		0.0185	0.0200	-7.4	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1790		0.0200	0.0200	-0.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1598		0.0197	0.0200	-1.3	20.0
N-Propylbenzene	Ave	0.7108	0.6753		0.0190	0.0200	-5.0	20.0
2-Chlorotoluene	Ave	0.6372	0.6019		0.0189	0.0200	-5.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.131		0.0189	0.0200	-5.3	20.0
4-Chlorotoluene	Ave	0.6808	0.6256		0.0184	0.0200	-8.1	20.0
tert-Butylbenzene	Ave	1.832	1.809		0.0198	0.0200	-1.2	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.275		0.0190	0.0200	-5.1	20.0
sec-Butylbenzene	Ave	2.517	2.331		0.0185	0.0200	-7.4	20.0
1,3-Dichlorobenzene	Ave	1.358	1.235	0.6000	0.0182	0.0200	-9.0	20.0
4-Isopropyltoluene	Ave	2.194	2.065		0.0188	0.0200	-5.9	20.0
1,4-Dichlorobenzene	Ave	1.421	1.268	0.5000	0.0178	0.0200	-10.8	20.0
n-Butylbenzene	Ave	1.821	1.705		0.0187	0.0200	-6.4	20.0
1,2-Dichlorobenzene	Ave	1.283	1.210	0.4000	0.0189	0.0200	-5.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275134/3 Calibration Date: 04/18/2017 10:07

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1762.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.0955	0.0500	0.0185	0.0200	-7.4	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6241	0.2000	0.0190	0.0200	-4.9	50.0
Hexachlorobutadiene	Ave	0.2651	0.2056		0.0155	0.0200	-22.4*	20.0
Naphthalene	Ave	1.583	1.593		0.0201	0.0200	0.6	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5038		0.0185	0.0200	-7.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2544		0.0191	0.0200	-4.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3150		0.0195	0.0200	-2.7	20.0
Toluene-d8 (Surr)	Ave	1.277	1.356		0.0212	0.0200	6.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.5101		0.0203	0.0200	1.6	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: BFB3479.D BFB Injection Date: 10/31/2016

Instrument ID: A3UX9 BFB Injection Time: 12:14

Analysis Batch No.: 253710

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	81.8	
175	5.0 - 9.0 % of mass 174	5.9	(7.2) 1
176	95.0 - 101.0 % of mass 174	80.9	(98.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-253710/8	UX959470.D	10/31/2016	13:31
	STD8260 240-253710/9	UX959471.D	10/31/2016	13:55
	STD8260 240-253710/10	UX959472.D	10/31/2016	14:20
	ICIS 240-253710/11	UX959473.D	10/31/2016	14:44
	STD8260 240-253710/12	UX959474.D	10/31/2016	15:08
	STD8260 240-253710/13	UX959475.D	10/31/2016	15:31
	ICV 240-253710/22	UX959484.D	10/31/2016	19:09

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-253710/8	UX959470.D
Level 2	STD8260 240-253710/9	UX959471.D
Level 3	STD8260 240-253710/10	UX959472.D
Level 4	ICIS 240-253710/11	UX959473.D
Level 5	STD8260 240-253710/12	UX959474.D
Level 6	STD8260 240-253710/13	UX959475.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2740 0.3110	0.2716	0.2989	0.2939	0.3264	Ave		0.2960			0.1000	7.2		20.0			
Chloromethane	0.3760 0.3337	0.3407	0.3694	0.3368	0.3588	Ave		0.3526			0.1000	5.1		20.0			
Vinyl chloride	0.3009 0.3414	0.3318	0.3722	0.3407	0.3619	Ave		0.3415			0.1000	7.3		20.0			
Butadiene	+++++ 0.3268	0.2168	0.2797	0.3026	0.3283	Ave		0.2909				15.8		20.0			
Bromomethane	0.1937 0.2501	0.1952	0.2199	0.2077	0.2234	Ave		0.2150			0.0500	9.8		20.0			
Chloroethane	0.1543 0.2476	0.1912	0.2494	0.2301	0.2469	Ave		0.2199			0.0500	17.7		20.0			
Dichlorofluoromethane	0.3725 0.5509	0.4178	0.5768	0.5402	0.5830	Ave		0.5069				17.6		20.0			
Trichlorofluoromethane	0.3107 0.4549	0.3855	0.4467	0.4326	0.4727	Ave		0.4172			0.1000	14.4		20.0			
Ethyl ether	0.1906 0.2453	0.2082	0.2425	0.2372	0.2480	Ave		0.2286				10.3		20.0			
Acrolein	0.0379 0.0356	0.0299	0.0323	0.0329	0.0360	Ave		0.0341				8.6		20.0			
1,1-Dichloroethene	0.3555 0.5265	0.4280	0.5369	0.4991	0.5281	Ave		0.4790			0.1000	15.1		20.0			
Acetone	+++++ 0.1056	0.1566	0.1192	0.1039	0.0988	Lin1	0.1173	0.1029			0.0100				0.9980		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.2848	0.1673	0.2782	0.2606	0.2864	Ave		0.2555			0.0500	19.7		20.0			
Iodomethane	0.3928 0.4627	0.4110	0.4526	0.4319	0.4610	Ave		0.4353				6.6		20.0			
Carbon disulfide	0.7849 0.8581	1.0236	0.8141	0.7260	0.8171	Ave		0.8373			0.1000	12.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.3504 0.3857	0.3632	0.3389	0.3492	0.3769	Ave		0.3607				5.0		20.0			
Methyl acetate	0.2313 0.2140	0.2276	0.2155	0.2066	0.2192	Ave		0.2190			0.1000	4.2		20.0			
Methylene Chloride	+++++ 0.3576	0.4410	0.3959	0.3491	0.3706	Ave		0.3828			0.1000	9.7		20.0			
2-Methyl-2-propanol	0.0247 0.0298	0.0214	0.0271	0.0260	0.0285	Ave		0.0262				11.3		20.0			
Acrylonitrile	0.0917 0.1045	0.0887	0.1017	0.1002	0.1038	Ave		0.0984				6.7		20.0			
trans-1,2-Dichloroethene	0.3245 0.3491	0.3572	0.3524	0.3424	0.3605	Ave		0.3477			0.1000	3.7		20.0			
Methyl tert-butyl ether	0.7869 0.8678	0.7533	0.8472	0.8294	0.8677	Ave		0.8254			0.1000	5.6		20.0			
Hexane	0.2438 0.2902	0.2349	0.2662	0.2595	0.2778	Ave		0.2621				7.9		20.0			
1,1-Dichloroethane	0.4042 0.4522	0.4181	0.4501	0.4390	0.4558	Ave		0.4365			0.2000	4.8		20.0			
Vinyl acetate	0.4045 0.4353	0.4208	0.3889	0.3960	0.4425	Ave		0.4147				5.2		20.0			
cis-1,2-Dichloroethene	0.3148 0.3690	0.4060	0.3712	0.3562	0.3704	Ave		0.3646			0.1000	8.1		20.0			
2-Butanone (MEK)	0.1329 0.1042	0.1093	0.1263	0.1044	0.1134	Ave		0.1151			0.0100	10.4		20.0			
2,2-Dichloropropane	0.1901 0.2047	0.1713	0.2006	0.1957	0.2025	Ave		0.1941				6.4		20.0			
Chlorobromomethane	0.2096 0.2081	0.1998	0.2125	0.2003	0.2083	Ave		0.2064				2.5		20.0			
Tetrahydrofuran	0.0720 0.0795	0.0759	0.0825	0.0775	0.0815	Ave		0.0782				4.9		20.0			
Chloroform	0.3597 0.4300	0.3989	0.4331	0.4234	0.4333	Ave		0.4131			0.2000	7.1		20.0			
1,1,1-Trichloroethane	0.2584 0.3174	0.2802	0.3075	0.3090	0.3145	Ave		0.2978			0.1000	7.9		20.0			
Cyclohexane	0.2974 0.3060	0.2183	0.2760	0.2912	0.3026	Ave		0.2819			0.1000	11.7		20.0			
1,1-Dichloropropene	0.3395 0.3666	0.3387	0.3505	0.3501	0.3605	Ave		0.3510				3.2		20.0			
Carbon tetrachloride	0.2613 0.3093	0.2264	0.2724	0.2772	0.3000	Ave		0.2744			0.1000	10.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0084 0.0093	0.0074	0.0078	0.0085	0.0097	Ave		0.0085				10.1		20.0			
Benzene	0.9773 1.0660	1.0220	1.0742	1.0397	1.0682	Ave		1.0412			0.5000	3.6		20.0			
1,2-Dichloroethane	0.3961 0.3697	0.3827	0.3803	0.3625	0.3771	Ave		0.3781			0.1000	3.1		20.0			
n-Heptane	+++++ 0.1709	0.2884	0.1629	0.1584	0.1591	Lin1	0.1055	0.1629							0.9970		0.9900
Trichloroethene	0.2541 0.2829	0.2997	0.2875	0.2799	0.2864	Ave		0.2817			0.1500	5.4		20.0			
Methylcyclohexane	0.2846 0.3569	0.2848	0.3042	0.3184	0.3339	Ave		0.3138			0.1000	9.1		20.0			
1,2-Dichloropropane	0.2495 0.2481	0.1942	0.2495	0.2437	0.2470	Ave		0.2387			0.1000	9.2		20.0			
Dibromomethane	0.1552 0.1739	0.1655	0.1743	0.1666	0.1769	Ave		0.1687				4.7		20.0			
1,4-Dioxane	+++++ 0.0032	0.0024	0.0029	0.0030	0.0035	Ave		0.0030				13.8		20.0			
Dichlorobromomethane	0.3054 0.3294	0.2754	0.3271	0.3062	0.3291	Ave		0.3121			0.1500	6.8		20.0			
2-Chloroethyl vinyl ether	0.1560 0.1849	0.1341	0.1797	0.1726	0.1870	Ave		0.1691				12.1		20.0			
cis-1,3-Dichloropropene	0.2523 0.4313	0.2934	0.3728	0.3872	0.4186	Ave		0.3593			0.1500	19.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2026 0.2453	0.2461	0.2500	0.2299	0.2496	Ave		0.2373			0.0500	7.8		20.0			
Toluene	1.4206 1.4774	1.4725	1.5025	1.4923	1.5137	Ave		1.4798			0.4000	2.2		20.0			
trans-1,3-Dichloropropene	0.2796 0.5131	0.2726	0.4215	0.4591	0.4920	Lin1	-0.174	0.4989			0.1000				0.9970		0.9900
Ethyl methacrylate	0.3130 0.4707	0.3237	0.4263	0.4409	0.4731	Ave		0.4079				17.6		20.0			
1,1,2-Trichloroethane	0.3081 0.2999	0.2772	0.3080	0.3024	0.3068	Ave		0.3004			0.1000	3.9		20.0			
1,3-Dichloropropane	0.6075 0.5716	0.5788	0.5768	0.5793	0.5784	Ave		0.5821				2.2		20.0			
Tetrachloroethene	0.3586 0.3405	0.3383	0.3436	0.3387	0.3416	Ave		0.3436			0.1500	2.2		20.0			
2-Hexanone	0.2018 0.2018	0.1934	0.2073	0.1915	0.2197	Ave		0.2026			0.0500	5.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.1404 0.3065	0.1885	0.2484	0.2756	0.2950	Lin1	-0.105	0.2984							0.9980		0.9900
Ethylene Dibromide	0.2818 0.3054	0.3040	0.3311	0.3104	0.3187	Ave		0.3086				5.4		20.0			
Chlorobenzene	0.9750 1.0017	0.9551	1.0118	1.0056	1.0282	Ave		0.9962			0.3000	2.7		20.0			
1,1,1,2-Tetrachloroethane	0.2813 0.3318	0.2359	0.3172	0.3274	0.3332	Ave		0.3045				12.7		20.0			
Ethylbenzene	0.4404 0.5339	0.4911	0.5201	0.5113	0.5358	Ave		0.5054				7.1		20.0			
m-Xylene & p-Xylene	0.5992 0.6588	0.5788	0.6697	0.6570	0.6729	Ave		0.6394				6.3		20.0			
o-Xylene	0.5545 0.6792	0.5872	0.6405	0.6521	0.6814	Ave		0.6325				8.1		20.0			
Styrene	0.8056 1.1519	0.9111	1.1233	1.1040	1.1602	Ave		1.0427			0.3000	14.2		20.0			
Bromoform	+++++ 0.1766	0.0859	0.1170	0.1416	0.1675	Lin1	-0.133	0.1694			0.1000				0.9910		0.9900
Isopropylbenzene	1.2431 1.5845	1.3447	1.5455	1.5475	1.6237	Ave		1.4815			0.1000	10.2		20.0			
1,1,2,2-Tetrachloroethane	0.7108 0.7699	0.7110	0.7430	0.7870	0.8001	Ave		0.7536			0.3000	5.1		20.0			
Bromobenzene	0.8207 0.7612	0.6939	0.7347	0.7577	0.7503	Ave		0.7530				5.5		20.0			
1,2,3-Trichloropropane	0.2485 0.2711	0.3099	0.2817	0.2863	0.2921	Ave		0.2816				7.4		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1738	0.0625	0.0690	0.1124	0.1260	Ave		0.1087				41.8	*	20.0			
N-Propylbenzene	0.6363 0.8060	0.6257	0.7201	0.7721	0.8051	Ave		0.7275				11.2		20.0			
2-Chlorotoluene	0.7681 0.7075	0.6942	0.6721	0.7044	0.7140	Ave		0.7100				4.5		20.0			
1,3,5-Trimethylbenzene	1.8942 2.3715	2.1949	2.1735	2.3146	2.3769	Ave		2.2209				8.2		20.0			
4-Chlorotoluene	0.5507 0.7519	0.7443	0.6934	0.7605	0.7709	Ave		0.7119				11.7		20.0			
tert-Butylbenzene	2.0342 2.0192	1.6703	2.0785	2.1994	2.0101	Ave		2.0019				8.8		20.0			
1,2,4-Trimethylbenzene	2.1059 2.4987	2.1501	2.3475	2.3966	2.5422	Ave		2.3402				7.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	0.4930 0.6053	0.4674	0.5469	0.5678	0.6023	Ave		0.5471				10.4		20.0			
1,3-Dichlorobenzene	1.4747 1.4345	1.3741	1.3942	1.4360	1.4594	Ave		1.4288			0.6000	2.7		20.0			
4-Isopropyltoluene	1.9791 2.4964	1.8194	2.2548	2.3826	2.4732	Ave		2.2342				12.4		20.0			
1,4-Dichlorobenzene	1.5384 1.4732	1.4645	1.4443	1.4810	1.5290	Ave		1.4884			0.5000	2.5		20.0			
n-Butylbenzene	1.9787 2.0882	1.7947	1.8431	1.9428	2.0350	Ave		1.9471				5.8		20.0			
1,2-Dichlorobenzene	1.4745 1.4141	1.3672	1.4031	1.4539	1.4554	Ave		1.4280			0.4000	2.8		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1722	0.0650	0.1512	0.1567	0.1716	Lin1	-0.120	0.1719			0.0500				0.9990		0.9900
1,2,4-Trichlorobenzene	0.8436 0.9146	0.6838	0.8064	0.8665	0.8854	Ave		0.8334			0.2000	9.8		20.0			
Hexachlorobutadiene	0.4432 0.3312	0.3109	0.2943	0.3070	0.3063	Ave		0.3322				16.8		20.0			
Naphthalene	2.4514 2.7719	2.3780	2.4048	2.6107	2.6834	Ave		2.5500				6.4		20.0			
1,2,3-Trichlorobenzene	0.9107 0.8620	0.7802	0.7873	0.8217	0.8212	Ave		0.8305				5.9		20.0			
Dibromofluoromethane (Surr)	0.1929 0.2274	0.2019	0.2216	0.2329	0.2400	Ave		0.2195				8.4		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2494 0.2961	0.2965	0.3087	0.2986	0.3032	Ave		0.2921				7.3		20.0			
Toluene-d8 (Surr)	1.2398 1.2745	1.2319	1.2744	1.2585	1.3026	Ave		1.2636				2.1		20.0			
4-Bromofluorobenzene (Surr)	0.3856 0.4810	0.4277	0.4870	0.4711	0.5020	Ave		0.4591				9.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-253710/8	UX959470.D
Level 2	STD8260 240-253710/9	UX959471.D
Level 3	STD8260 240-253710/10	UX959472.D
Level 4	ICIS 240-253710/11	UX959473.D
Level 5	STD8260 240-253710/12	UX959474.D
Level 6	STD8260 240-253710/13	UX959475.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	7215 1354562	14123	150362	320332	680696	0.500 80.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	9901 1453567	17721	185864	367090	748373	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7925 1486854	17259	187275	371300	754695	0.500 80.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	+++++ 1423385	11278	140691	329806	684778	+++++ 80.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	5102 1089114	10150	110611	226377	465972	0.500 80.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4063 1078543	9943	125457	250787	515011	0.500 80.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	9809 2399500	21731	290176	588799	1215776	0.500 80.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	8183 1981425	20048	224754	471491	985900	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5020 1068215	10830	121994	258562	517231	0.500 80.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	4996 774717	7773	81367	179175	375498	2.50 400	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	9363 2293011	22261	270090	544040	1101451	0.500 80.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 920206	16285	119921	226597	411943	+++++ 160	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	+++++ 1240587	8703	139978	284084	597254	+++++ 80.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	10343 2015382	21376	227697	470746	961379	0.500 80.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	20669 3737271	53235	409562	791343	1704128	0.500 80.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	9228 1679941	18891	170519	380582	786100	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	30458 4660013	59186	542039	1126032	2285728	2.50 400	5.00	50.0	100	200
Methylene Chloride	FB	Ave	+++++ 1557352	22938	199152	380479	772946	+++++ 80.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	6513 1295882	11111	136439	282930	594168	5.00 800	10.0	100	200	400
Acrylonitrile	FB	Ave	24154 4552207	46141	511631	1091842	2165761	5.00 800	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	8545 1520509	18575	177300	373166	751752	0.500 80.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	20723 3779507	39178	426233	903997	1809706	0.500 80.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	6420 1263719	12219	133920	282890	579408	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10644 1969405	21745	226419	478452	950553	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	10652 1895924	21884	195659	431579	922831	0.500 80.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	8290 1606902	21114	186738	388210	772577	0.500 80.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	6997 907503	11366	127084	227570	472990	1.00 160	2.00	20.0	40.0	80.0
2,2-Dichloropropane	FB	Ave	5006 891342	8909	100902	213339	422245	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	5520 906515	10389	106894	218284	434459	0.500 80.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	3793 692775	7896	82984	169018	339903	1.00 160	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	9473 1872919	20745	217895	461453	903747	0.500 80.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	6804 1382454	14575	154678	336825	655855	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	7831 1332555	11355	138838	317438	631089	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	8940 1596514	17616	176349	381603	751751	0.500 80.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6880 1347035	11775	137053	302139	625742	0.500 80.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	5499 1012918	9667	98074	231505	504642	12.5 2000	25.0	250	500	1000
Benzene	FB	Ave	25736 4642598	53152	540436	1133250	2227875	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	10431 1610337	19906	191345	395098	786494	0.500 80.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 744347	14998	81967	172616	331832	+++++ 80.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6691 1232077	15586	144653	305039	597315	0.500 80.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7496 1554611	14811	153052	347047	696424	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6571 1080421	10098	125536	265634	515135	0.500 80.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	4088 757541	8608	87680	181584	368865	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 277443	2463	29015	64911	145294	+++++ 1600	20.0	200	400	800
Dichlorobromomethane	FB	Ave	8043 1434574	14324	164581	333730	686416	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	8218 1610737	13952	180820	376178	779947	1.00 160	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	6643 1878459	15258	187548	422061	873107	0.500 80.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	10672 2136837	25597	251517	501194	1041090	1.00 160	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	29532 5186071	61194	598326	1261803	2529996	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Lin1	5813 1801088	11327	167834	388177	822247	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6506 1652174	13451	169777	372766	790770	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6405 1052853	11521	122635	255716	512844	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	12629 2006562	24055	229685	489830	966744	0.500 80.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7455 1195419	14057	136836	286414	571006	0.500 80.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	8392 1416575	16077	165132	323820	734278	1.00 160	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Lin1	2918 1075851	7834	98909	233033	493054	0.500 80.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	5858 1071955	12633	131863	262473	532697	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	20269 3516256	39691	402931	850273	1718467	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5848 1164842	9805	126319	276847	556973	0.500 80.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	9155 1874140	20408	207128	432295	895465	0.500 80.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	12456 2312443	24055	266688	555537	1124711	0.500 80.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	11527 2384189	24402	255067	551379	1138821	0.500 80.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	16747 4043520	37864	447307	933518	1939179	0.500 80.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Lin1	+++++ 619768	3569	46601	119719	280012	+++++ 80.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25842 5562069	55884	615469	1308494	2713786	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	7607 1511652	15462	175737	370559	776994	0.500 80.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8783 1494497	15089	173754	356741	728602	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2659 532370	6740	66634	134802	283668	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 341206	1360	16315	52945	122354	+++++ 80.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6810 1582609	13606	170304	363526	781811	0.500 80.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	8220 1389060	15097	158963	331668	693358	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	20272 4656383	47731	514064	1089816	2308137	0.500 80.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	5894 1476314	16185	164004	358055	748607	0.500 80.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	21770 3964535	36324	491581	1035589	1952027	0.500 80.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	22538 4906094	46757	555203	1128409	2468715	0.500 80.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	5276 1188410	10165	129358	267328	584872	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	15783 2816561	29883	329743	676138	1417159	0.500 80.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	21181 4901502	39565	533294	1121821	2401669	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	16464 2892481	31847	341584	697335	1484742	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	21177 4100036	39028	435911	914772	1976160	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	15781 2776485	29731	331849	684572	1413357	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 338136	1414	35755	73785	166645	+++++ 80.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9028 1795714	14871	190723	408008	859827	0.500 80.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4743 650351	6760	69614	144557	297461	0.500 80.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	26236 5442383	51713	568754	1229237	2605820	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9747 1692494	16966	186206	386895	797488	0.500 80.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	5080 990293	10501	111477	253847	500599	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	6569 1289603	15422	155294	325462	632418	0.500 80.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	25773 4473827	51197	507507	1064111	2177199	0.500 80.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	8016 1688410	17773	193918	398362	839102	0.500 80.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2533	0.1000	0.0171	0.0200	-14.4	20.0
Chloromethane	Ave	0.3526	0.3515	0.1000	0.0199	0.0200	-0.3	20.0
Vinyl chloride	Ave	0.3415	0.3456	0.1000	0.0202	0.0200	1.2	20.0
Butadiene	Ave	0.2909	0.3127		0.0215	0.0200	7.5	30.0
Bromomethane	Ave	0.2150	0.2223	0.0500	0.0207	0.0200	3.4	20.0
Chloroethane	Ave	0.2199	0.2452	0.0500	0.0223	0.0200	11.5	20.0
Dichlorofluoromethane	Ave	0.5069	0.5584		0.0220	0.0200	10.2	20.0
Trichlorofluoromethane	Ave	0.4172	0.4225	0.1000	0.0203	0.0200	1.3	20.0
Ethyl ether	Ave	0.2286	0.2300		0.0201	0.0200	0.6	20.0
Acrolein	Ave	0.0341	0.0543		0.159	0.100	59.1*	50.0
1,1-Dichloroethene	Ave	0.4790	0.4601	0.1000	0.0192	0.0200	-4.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2481	0.0500	0.0194	0.0200	-2.9	20.0
Acetone	Lin1		0.0845	0.0100	0.0317	0.0400	-20.7	50.0
Iodomethane	Ave	0.4353	0.4584		0.0211	0.0200	5.3	20.0
Carbon disulfide	Ave	0.8373	0.7252	0.1000	0.0173	0.0200	-13.4	20.0
3-Chloro-1-propene	Ave	0.3607	0.3451		0.0191	0.0200	-4.3	20.0
Methyl acetate	Ave	0.2190	0.2129	0.1000	0.0972	0.100	-2.8	20.0
Methylene Chloride	Ave	0.3828	0.3604	0.1000	0.0188	0.0200	-5.9	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0282		0.215	0.200	7.6	50.0
Acrylonitrile	Ave	0.0984	0.1032		0.210	0.200	4.8	20.0
Methyl tert-butyl ether	Ave	0.8254	0.8372	0.1000	0.0203	0.0200	1.4	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3345	0.1000	0.0192	0.0200	-3.8	20.0
Hexane	Ave	0.2621	0.2567		0.0196	0.0200	-2.0	20.0
1,1-Dichloroethane	Ave	0.4365	0.4281	0.2000	0.0196	0.0200	-1.9	20.0
Vinyl acetate	Ave	0.4147	0.3918		0.0189	0.0200	-5.5	50.0
2-Butanone (MEK)	Ave	0.1151	0.1224	0.0100	0.0426	0.0400	6.4	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3542	0.1000	0.0194	0.0200	-2.9	20.0
2,2-Dichloropropane	Ave	0.1941	0.1822		0.0188	0.0200	-6.1	20.0
Chlorobromomethane	Ave	0.2064	0.2118		0.0205	0.0200	2.6	20.0
Tetrahydrofuran	Ave	0.0782	0.0777		0.0398	0.0400	-0.6	20.0
Chloroform	Ave	0.4131	0.4211	0.2000	0.0204	0.0200	1.9	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.3065	0.1000	0.0206	0.0200	2.9	20.0
Cyclohexane	Ave	0.2819	0.2737	0.1000	0.0194	0.0200	-2.9	20.0
1,1-Dichloropropene	Ave	0.3510	0.3315		0.0189	0.0200	-5.6	20.0
Carbon tetrachloride	Ave	0.2744	0.2728	0.1000	0.0199	0.0200	-0.6	20.0
Isobutyl alcohol	Ave	0.0085	0.0090		0.531	0.500	6.1	20.0
1,2-Dichloroethane	Ave	0.3781	0.3730	0.1000	0.0197	0.0200	-1.4	20.0
Benzene	Ave	1.041	1.037	0.5000	0.0199	0.0200	-0.4	20.0
n-Heptane	Lin1		0.1424		0.0168	0.0200	-15.8	20.0
Trichloroethene	Ave	0.2817	0.2733	0.1500	0.0194	0.0200	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.3031	0.1000	0.0193	0.0200	-3.4	20.0
1,2-Dichloropropane	Ave	0.2387	0.2474	0.1000	0.0207	0.0200	3.7	20.0
1,4-Dioxane	Ave	0.0030	0.0033		0.443	0.400	10.8	50.0
Dibromomethane	Ave	0.1687	0.1663		0.0197	0.0200	-1.4	20.0
Dichlorobromomethane	Ave	0.3121	0.3023	0.1500	0.0194	0.0200	-3.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1779		0.0210	0.0200	5.2	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3907	0.1500	0.0218	0.0200	8.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2443	0.0500	0.0412	0.0400	2.9	20.0
Toluene	Ave	1.480	1.413	0.4000	0.0191	0.0200	-4.5	20.0
trans-1,3-Dichloropropene	Lin1		0.4109	0.1000	0.0168	0.0200	-15.9	20.0
Ethyl methacrylate	Ave	0.4079	0.4428		0.0217	0.0200	8.5	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2990	0.1000	0.0199	0.0200	-0.5	20.0
1,3-Dichloropropane	Ave	0.5821	0.5487		0.0189	0.0200	-5.7	20.0
Tetrachloroethene	Ave	0.3436	0.3278	0.1500	0.0191	0.0200	-4.6	20.0
2-Hexanone	Ave	0.2026	0.2188	0.0500	0.0432	0.0400	8.0	20.0
Chlorodibromomethane	Lin1		0.2534		0.0173	0.0200	-13.3	20.0
Ethylene Dibromide	Ave	0.3086	0.3139		0.0203	0.0200	1.7	20.0
Chlorobenzene	Ave	0.996	0.9792	0.3000	0.0197	0.0200	-1.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.3082		0.0202	0.0200	1.2	20.0
Ethylbenzene	Ave	0.5054	0.4868		0.0193	0.0200	-3.7	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6106		0.0191	0.0200	-4.5	20.0
o-Xylene	Ave	0.6325	0.6033		0.0191	0.0200	-4.6	20.0
Styrene	Ave	1.043	1.068	0.3000	0.0205	0.0200	2.4	20.0
Bromoform	Lin1		0.1338	0.1000	0.0166	0.0200	-17.1	20.0
Isopropylbenzene	Ave	1.482	1.476	0.1000	0.0199	0.0200	-0.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.8038	0.3000	0.0213	0.0200	6.7	20.0
Bromobenzene	Ave	0.7530	0.7621		0.0202	0.0200	1.2	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2807		0.0199	0.0200	-0.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.0976		0.0179	0.0200	-10.3	20.0
N-Propylbenzene	Ave	0.7275	0.7555		0.0208	0.0200	3.8	20.0
2-Chlorotoluene	Ave	0.7100	0.7027		0.0198	0.0200	-1.0	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.248		0.0202	0.0200	1.2	20.0
4-Chlorotoluene	Ave	0.7119	0.7423		0.0209	0.0200	4.3	20.0
tert-Butylbenzene	Ave	2.002	1.877		0.0188	0.0200	-6.2	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.374		0.0203	0.0200	1.4	20.0
sec-Butylbenzene	Ave	0.5471	0.5588		0.0204	0.0200	2.1	20.0
1,3-Dichlorobenzene	Ave	1.429	1.429	0.6000	0.0200	0.0200	0.0	20.0
4-Isopropyltoluene	Ave	2.234	2.314		0.0207	0.0200	3.6	20.0
1,4-Dichlorobenzene	Ave	1.488	1.507	0.5000	0.0202	0.0200	1.2	20.0
n-Butylbenzene	Ave	1.947	1.835		0.0189	0.0200	-5.7	20.0
1,2-Dichlorobenzene	Ave	1.428	1.430	0.4000	0.0200	0.0200	0.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1570	0.0500	0.0190	0.0200	-5.2	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.8250	0.2000	0.0198	0.0200	-1.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2855		0.0172	0.0200	-14.1	20.0
Naphthalene	Ave	2.550	2.625		0.0206	0.0200	3.0	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.8077		0.0195	0.0200	-2.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2034		0.0185	0.0200	-7.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2643		0.0181	0.0200	-9.5	20.0
Toluene-d8 (Surr)	Ave	1.264	1.172		0.0185	0.0200	-7.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4615		0.0201	0.0200	0.5	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: BFB3627.D BFB Injection Date: 04/17/2017

Instrument ID: A3UX9 BFB Injection Time: 08:39

Analysis Batch No.: 274915

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.7	
75	30.0 - 60.0 % of mass 95	49.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	89.5	
175	5.0 - 9.0 % of mass 174	7.5	(8.4) 1
176	95.0 - 101.0 % of mass 174	86.2	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-274915/3	UX963183.D	04/17/2017	09:26
	LCS 240-274915/4	UX963184.D	04/17/2017	09:50
	LCSD 240-274915/5	UX963185.D	04/17/2017	10:16
	CCV 240-274915/6	UX963186.D	04/17/2017	10:40
	MB 240-274915/8	UX963188.D	04/17/2017	11:28
TB-041217	240-78035-1	UX963200.D	04/17/2017	17:00
MRC-MW13A-041217	240-78035-3	UX963202.D	04/17/2017	17:48
MRC-MW12C-041217	240-78035-4	UX963203.D	04/17/2017	18:11
MRC-MW63A-041217	240-78035-5	UX963204.D	04/17/2017	18:35

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-274915/3 Calibration Date: 04/17/2017 09:26

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963183.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2582	0.1000	0.0174	0.0200	-12.8	20.0
Chloromethane	Ave	0.3526	0.3480	0.1000	0.0197	0.0200	-1.3	20.0
Vinyl chloride	Ave	0.3415	0.3277	0.1000	0.0192	0.0200	-4.0	20.0
Butadiene	Ave	0.2909	0.2255		0.0155	0.0200	-22.5*	20.0
Bromomethane	Ave	0.2150	0.2025	0.0500	0.0188	0.0200	-5.8	20.0
Chloroethane	Ave	0.2199	0.2136	0.0500	0.0194	0.0200	-2.9	20.0
Dichlorofluoromethane	Ave	0.5069	0.5070		0.0200	0.0200	0.0	20.0
Trichlorofluoromethane	Ave	0.4172	0.3469	0.1000	0.0166	0.0200	-16.8	20.0
Ethyl ether	Ave	0.2286	0.2151		0.0188	0.0200	-5.9	20.0
Acrolein	Ave	0.0341	0.0395		0.116	0.100	15.8	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2000	0.0500	0.0157	0.0200	-21.7*	20.0
1,1-Dichloroethene	Ave	0.4790	0.4523	0.1000	0.0189	0.0200	-5.6	20.0
Acetone	Lin1		0.1031	0.0100	0.0389	0.0400	-2.6	50.0
Iodomethane	Ave	0.4353	0.3991		0.0183	0.0200	-8.3	20.0
Carbon disulfide	Ave	0.8373	0.6273	0.1000	0.0150	0.0200	-25.1*	20.0
3-Chloro-1-propene	Ave	0.3607	0.3088		0.0171	0.0200	-14.4	20.0
Methyl acetate	Ave	0.2190	0.2000	0.1000	0.0913	0.100	-8.7	20.0
Methylene Chloride	Ave	0.3828	0.3685	0.1000	0.0192	0.0200	-3.8	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0252		0.192	0.200	-4.0	50.0
Acrylonitrile	Ave	0.0984	0.1095		0.222	0.200	11.2	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7543	0.1000	0.0183	0.0200	-8.6	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3429	0.1000	0.0197	0.0200	-1.4	20.0
Hexane	Ave	0.2621	0.2035		0.0155	0.0200	-22.4*	20.0
1,1-Dichloroethane	Ave	0.4365	0.4061	0.2000	0.0186	0.0200	-7.0	20.0
Vinyl acetate	Ave	0.4147	0.3697		0.0178	0.0200	-10.8	50.0
2-Butanone (MEK)	Ave	0.1151	0.1292	0.0100	0.0449	0.0400	12.3	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3530	0.1000	0.0194	0.0200	-3.2	20.0
2,2-Dichloropropane	Ave	0.1941	0.1551		0.0160	0.0200	-20.1*	20.0
Chlorobromomethane	Ave	0.2064	0.2037		0.0197	0.0200	-1.3	20.0
Tetrahydrofuran	Ave	0.0782	0.0778		0.0398	0.0400	-0.5	20.0
Chloroform	Ave	0.4131	0.4255	0.2000	0.0206	0.0200	3.0	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2629	0.1000	0.0177	0.0200	-11.7	20.0
Cyclohexane	Ave	0.2819	0.2436	0.1000	0.0173	0.0200	-13.6	20.0
1,1-Dichloropropene	Ave	0.3510	0.3105		0.0177	0.0200	-11.5	20.0
Carbon tetrachloride	Ave	0.2744	0.2219	0.1000	0.0162	0.0200	-19.2	20.0
Isobutyl alcohol	Ave	0.0085	0.0051		0.299	0.500	-40.2*	20.0
1,2-Dichloroethane	Ave	0.3781	0.3318	0.1000	0.0176	0.0200	-12.2	20.0
Benzene	Ave	1.041	0.997	0.5000	0.0192	0.0200	-4.2	20.0
n-Heptane	Lin1		0.1261		0.0148	0.0200	-25.8*	20.0
Trichloroethene	Ave	0.2817	0.2601	0.1500	0.0185	0.0200	-7.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-274915/3 Calibration Date: 04/17/2017 09:26

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963183.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2525	0.1000	0.0161	0.0200	-19.5	20.0
1,2-Dichloropropane	Ave	0.2387	0.2249	0.1000	0.0188	0.0200	-5.8	20.0
1,4-Dioxane	Ave	0.0030	0.0025		0.334	0.400	-16.5	50.0
Dibromomethane	Ave	0.1687	0.1764		0.0209	0.0200	4.5	20.0
Dichlorobromomethane	Ave	0.3121	0.2809	0.1500	0.0180	0.0200	-10.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1562		0.0370	0.0400	-7.6	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3640	0.1500	0.0203	0.0200	1.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2336	0.0500	0.0394	0.0400	-1.6	20.0
Toluene	Ave	1.480	1.425	0.4000	0.0193	0.0200	-3.7	20.0
trans-1,3-Dichloropropene	Lin1		0.4353	0.1000	0.0178	0.0200	-11.0	20.0
Ethyl methacrylate	Ave	0.4079	0.3804		0.0186	0.0200	-6.8	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.3070	0.1000	0.0204	0.0200	2.2	20.0
1,3-Dichloropropane	Ave	0.5821	0.5409		0.0186	0.0200	-7.1	20.0
Tetrachloroethene	Ave	0.3436	0.3425	0.1500	0.0199	0.0200	-0.3	20.0
2-Hexanone	Ave	0.2026	0.2192	0.0500	0.0433	0.0400	8.2	20.0
Chlorodibromomethane	Lin1		0.2536		0.0173	0.0200	-13.3	20.0
Ethylene Dibromide	Ave	0.3086	0.2986		0.0194	0.0200	-3.2	20.0
Chlorobenzene	Ave	0.996	0.9366	0.3000	0.0188	0.0200	-6.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2779		0.0183	0.0200	-8.7	20.0
Ethylbenzene	Ave	0.5054	0.4820		0.0191	0.0200	-4.6	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6173		0.0193	0.0200	-3.5	20.0
o-Xylene	Ave	0.6325	0.5848		0.0185	0.0200	-7.5	20.0
Styrene	Ave	1.043	1.048	0.3000	0.0201	0.0200	0.5	20.0
Bromoform	Lin1		0.1606	0.1000	0.0198	0.0200	-1.2	20.0
Isopropylbenzene	Ave	1.482	1.424	0.1000	0.0192	0.0200	-3.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7617	0.3000	0.0202	0.0200	1.1	20.0
Bromobenzene	Ave	0.7530	0.7401		0.0197	0.0200	-1.7	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2771		0.0197	0.0200	-1.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1877		0.0345	0.0200	72.6*	20.0
N-Propylbenzene	Ave	0.7275	0.7004		0.0193	0.0200	-3.7	20.0
2-Chlorotoluene	Ave	0.7100	0.6566		0.0185	0.0200	-7.5	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.093		0.0188	0.0200	-5.8	20.0
4-Chlorotoluene	Ave	0.7119	0.6860		0.0193	0.0200	-3.6	20.0
tert-Butylbenzene	Ave	2.002	1.946		0.0194	0.0200	-2.8	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.231		0.0191	0.0200	-4.7	20.0
sec-Butylbenzene	Ave	0.5471	0.5106		0.0187	0.0200	-6.7	20.0
1,3-Dichlorobenzene	Ave	1.429	1.348	0.6000	0.0189	0.0200	-5.7	20.0
4-Isopropyltoluene	Ave	2.234	2.094		0.0187	0.0200	-6.3	20.0
1,4-Dichlorobenzene	Ave	1.488	1.434	0.5000	0.0193	0.0200	-3.7	20.0
n-Butylbenzene	Ave	1.947	1.682		0.0173	0.0200	-13.6	20.0
1,2-Dichlorobenzene	Ave	1.428	1.334	0.4000	0.0187	0.0200	-6.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-274915/3 Calibration Date: 04/17/2017 09:26

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963183.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1458	0.0500	0.0177	0.0200	-11.7	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.6665	0.2000	0.0160	0.0200	-20.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2505		0.0151	0.0200	-24.6*	20.0
Naphthalene	Ave	2.550	2.050		0.0161	0.0200	-19.6	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.5893		0.0142	0.0200	-29.0*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2186		0.0199	0.0200	-0.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2694		0.0184	0.0200	-7.8	20.0
Toluene-d8 (Surr)	Ave	1.264	1.271		0.0201	0.0200	0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4820		0.0210	0.0200	5.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: BFB3630.D BFB Injection Date: 04/20/2017

Instrument ID: A3UX9 BFB Injection Time: 15:30

Analysis Batch No.: 275600

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.3	(0.3) 1
174	50.0 - 120.00 % of mass 95	94.5	
175	5.0 - 9.0 % of mass 174	6.3	(6.7) 1
176	95.0 - 101.0 % of mass 174	92.6	(97.9) 1
177	5.0 - 9.0 % of mass 176	5.4	(5.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-275600/3	UX963279.D	04/20/2017	16:05
	LCS 240-275600/4	UX963280.D	04/20/2017	16:27
	CCV 240-275600/5	UX963281.D	04/20/2017	16:49
	MB 240-275600/7	UX963283.D	04/20/2017	17:35
TB-041717	240-78206-1	UX963298.D	04/20/2017	23:33
MRC-MW27A-041717	240-78206-2	UX963299.D	04/21/2017	00:04
MRC-MW27B-041717	240-78206-3	UX963300.D	04/21/2017	01:58
MRC-MW27C-041717	240-78206-4	UX963301.D	04/21/2017	02:22
MRC-DUP10-041717	240-78206-6	UX963302.D	04/21/2017	02:46
	240-78172-E-3 MS	UX963303.D	04/21/2017	03:10
	240-78172-H-3 MSD	UX963304.D	04/21/2017	03:35

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275600/3 Calibration Date: 04/20/2017 16:05

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963279.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.3590	0.1000	0.0243	0.0200	21.3*	20.0
Chloromethane	Ave	0.3526	0.3696	0.1000	0.0210	0.0200	4.8	20.0
Vinyl chloride	Ave	0.3415	0.3566	0.1000	0.0209	0.0200	4.4	20.0
Butadiene	Ave	0.2909	0.2577		0.0177	0.0200	-11.4	20.0
Bromomethane	Ave	0.2150	0.2149	0.0500	0.0200	0.0200	-0.0	20.0
Chloroethane	Ave	0.2199	0.2338	0.0500	0.0213	0.0200	6.3	20.0
Dichlorofluoromethane	Ave	0.5069	0.5367		0.0212	0.0200	5.9	20.0
Trichlorofluoromethane	Ave	0.4172	0.4263	0.1000	0.0204	0.0200	2.2	20.0
Ethyl ether	Ave	0.2286	0.2251		0.0197	0.0200	-1.6	20.0
Acrolein	Ave	0.0341	0.0387		0.113	0.100	13.5	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2401	0.0500	0.0188	0.0200	-6.0	20.0
1,1-Dichloroethene	Ave	0.4790	0.4519	0.1000	0.0189	0.0200	-5.7	20.0
Acetone	Lin1		0.1003	0.0100	0.0378	0.0400	-5.4	50.0
Iodomethane	Ave	0.4353	0.3900		0.0179	0.0200	-10.4	20.0
Carbon disulfide	Ave	0.8373	0.6069	0.1000	0.0145	0.0200	-27.5*	20.0
3-Chloro-1-propene	Ave	0.3607	0.3079		0.0171	0.0200	-14.6	20.0
Methyl acetate	Ave	0.2190	0.2081	0.1000	0.0950	0.100	-5.0	20.0
Methylene Chloride	Ave	0.3828	0.3655	0.1000	0.0191	0.0200	-4.5	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0271		0.206	0.200	3.2	50.0
Acrylonitrile	Ave	0.0984	0.1118		0.227	0.200	13.6	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7678	0.1000	0.0186	0.0200	-7.0	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3437	0.1000	0.0198	0.0200	-1.1	20.0
Hexane	Ave	0.2621	0.2453		0.0187	0.0200	-6.4	20.0
1,1-Dichloroethane	Ave	0.4365	0.4123	0.2000	0.0189	0.0200	-5.6	20.0
Vinyl acetate	Ave	0.4147	0.3890		0.0188	0.0200	-6.2	50.0
2-Butanone (MEK)	Ave	0.1151	0.1298	0.0100	0.0451	0.0400	12.8	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3473	0.1000	0.0190	0.0200	-4.8	20.0
2,2-Dichloropropane	Ave	0.1941	0.1671		0.0172	0.0200	-13.9	20.0
Chlorobromomethane	Ave	0.2064	0.2099		0.0203	0.0200	1.7	20.0
Tetrahydrofuran	Ave	0.0782	0.0804		0.0411	0.0400	2.8	20.0
Chloroform	Ave	0.4131	0.4243	0.2000	0.0205	0.0200	2.7	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2726	0.1000	0.0183	0.0200	-8.5	20.0
Cyclohexane	Ave	0.2819	0.2793	0.1000	0.0198	0.0200	-0.9	20.0
1,1-Dichloropropene	Ave	0.3510	0.3314		0.0189	0.0200	-5.6	20.0
Carbon tetrachloride	Ave	0.2744	0.2385	0.1000	0.0174	0.0200	-13.1	20.0
Isobutyl alcohol	Ave	0.0085	0.0066		0.385	0.500	-23.0*	20.0
1,2-Dichloroethane	Ave	0.3781	0.3426	0.1000	0.0181	0.0200	-9.4	20.0
Benzene	Ave	1.041	1.042	0.5000	0.0200	0.0200	0.0	20.0
n-Heptane	Lin1		0.1501		0.0178	0.0200	-11.1	20.0
Trichloroethene	Ave	0.2817	0.2740	0.1500	0.0194	0.0200	-2.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275600/3 Calibration Date: 04/20/2017 16:05

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963279.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2992	0.1000	0.0191	0.0200	-4.6	20.0
1,2-Dichloropropane	Ave	0.2387	0.2404	0.1000	0.0201	0.0200	0.7	20.0
1,4-Dioxane	Ave	0.0030	0.0029		0.384	0.400	-4.1	50.0
Dibromomethane	Ave	0.1687	0.1835		0.0217	0.0200	8.7	20.0
Dichlorobromomethane	Ave	0.3121	0.2901	0.1500	0.0186	0.0200	-7.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1578		0.0373	0.0400	-6.7	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3736	0.1500	0.0208	0.0200	4.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2461	0.0500	0.0415	0.0400	3.7	20.0
Toluene	Ave	1.480	1.451	0.4000	0.0196	0.0200	-2.0	20.0
trans-1,3-Dichloropropene	Lin1		0.4396	0.1000	0.0180	0.0200	-10.1	20.0
Ethyl methacrylate	Ave	0.4079	0.3858		0.0189	0.0200	-5.4	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2988	0.1000	0.0199	0.0200	-0.5	20.0
1,3-Dichloropropane	Ave	0.5821	0.5480		0.0188	0.0200	-5.9	20.0
Tetrachloroethene	Ave	0.3436	0.3514	0.1500	0.0205	0.0200	2.3	20.0
2-Hexanone	Ave	0.2026	0.2303	0.0500	0.0455	0.0400	13.7	20.0
Chlorodibromomethane	Lin1		0.2717		0.0186	0.0200	-7.2	20.0
Ethylene Dibromide	Ave	0.3086	0.2991		0.0194	0.0200	-3.1	20.0
Chlorobenzene	Ave	0.996	0.9528	0.3000	0.0191	0.0200	-4.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2930		0.0192	0.0200	-3.8	20.0
Ethylbenzene	Ave	0.5054	0.4891		0.0194	0.0200	-3.2	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6224		0.0195	0.0200	-2.7	20.0
o-Xylene	Ave	0.6325	0.6112		0.0193	0.0200	-3.4	20.0
Styrene	Ave	1.043	1.034	0.3000	0.0198	0.0200	-0.8	20.0
Bromoform	Lin1		0.1635	0.1000	0.0201	0.0200	0.5	20.0
Isopropylbenzene	Ave	1.482	1.451	0.1000	0.0196	0.0200	-2.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7615	0.3000	0.0202	0.0200	1.0	20.0
Bromobenzene	Ave	0.7530	0.7636		0.0203	0.0200	1.4	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2858		0.0203	0.0200	1.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1719		0.0316	0.0200	58.1*	20.0
N-Propylbenzene	Ave	0.7275	0.7170		0.0197	0.0200	-1.4	20.0
2-Chlorotoluene	Ave	0.7100	0.6368		0.0179	0.0200	-10.3	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.089		0.0188	0.0200	-5.9	20.0
4-Chlorotoluene	Ave	0.7119	0.7033		0.0198	0.0200	-1.2	20.0
tert-Butylbenzene	Ave	2.002	1.964		0.0196	0.0200	-1.9	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.232		0.0191	0.0200	-4.6	20.0
sec-Butylbenzene	Ave	0.5471	0.5171		0.0189	0.0200	-5.5	20.0
1,3-Dichlorobenzene	Ave	1.429	1.380	0.6000	0.0193	0.0200	-3.4	20.0
4-Isopropyltoluene	Ave	2.234	2.143		0.0192	0.0200	-4.1	20.0
1,4-Dichlorobenzene	Ave	1.488	1.453	0.5000	0.0195	0.0200	-2.4	20.0
n-Butylbenzene	Ave	1.947	1.701		0.0175	0.0200	-12.6	20.0
1,2-Dichlorobenzene	Ave	1.428	1.364	0.4000	0.0191	0.0200	-4.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275600/3 Calibration Date: 04/20/2017 16:05

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963279.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1406	0.0500	0.0171	0.0200	-14.7	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.6844	0.2000	0.0164	0.0200	-17.9	50.0
Hexachlorobutadiene	Ave	0.3322	0.2771		0.0167	0.0200	-16.6	20.0
Naphthalene	Ave	2.550	1.993		0.0156	0.0200	-21.8	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.5820		0.0140	0.0200	-29.9*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2160		0.0197	0.0200	-1.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2724		0.0187	0.0200	-6.7	20.0
Toluene-d8 (Surr)	Ave	1.264	1.226		0.0194	0.0200	-3.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4646		0.0202	0.0200	1.2	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: BFB3631.D BFB Injection Date: 04/21/2017

Instrument ID: A3UX9 BFB Injection Time: 09:03

Analysis Batch No.: 275664

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.0	
75	30.0 - 60.0 % of mass 95	53.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	94.3	
175	5.0 - 9.0 % of mass 174	6.1	(6.4) 1
176	95.0 - 101.0 % of mass 174	91.9	(97.4) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-275664/3	UX963308.D	04/21/2017	09:29
	LCS 240-275664/4	UX963309.D	04/21/2017	09:53
	CCV 240-275664/5	UX963310.D	04/21/2017	10:17
	MB 240-275664/7	UX963312.D	04/21/2017	11:05
MRC-MW27C-041717	240-78206-4	UX963316.D	04/21/2017	14:59
MRC-MW27A-041717	240-78206-2	UX963317.D	04/21/2017	15:22
MRC-MW27B-041717	240-78206-3	UX963318.D	04/21/2017	15:46

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275664/3 Calibration Date: 04/21/2017 09:29

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963308.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.3528	0.1000	0.0238	0.0200	19.2	20.0
Chloromethane	Ave	0.3526	0.3979	0.1000	0.0226	0.0200	12.8	20.0
Vinyl chloride	Ave	0.3415	0.3644	0.1000	0.0213	0.0200	6.7	20.0
Butadiene	Ave	0.2909	0.2687		0.0185	0.0200	-7.6	20.0
Bromomethane	Ave	0.2150	0.2228	0.0500	0.0207	0.0200	3.6	20.0
Chloroethane	Ave	0.2199	0.2336	0.0500	0.0212	0.0200	6.2	20.0
Dichlorofluoromethane	Ave	0.5069	0.5484		0.0216	0.0200	8.2	20.0
Trichlorofluoromethane	Ave	0.4172	0.3850	0.1000	0.0185	0.0200	-7.7	20.0
Ethyl ether	Ave	0.2286	0.2237		0.0196	0.0200	-2.2	20.0
Acrolein	Ave	0.0341	0.0351		0.103	0.100	2.8	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.1782	0.0500	0.0139	0.0200	-30.3*	20.0
1,1-Dichloroethene	Ave	0.4790	0.4355	0.1000	0.0182	0.0200	-9.1	20.0
Acetone	Lin1		0.1144	0.0100	0.0433	0.0400	8.4	50.0
Iodomethane	Ave	0.4353	0.3823		0.0176	0.0200	-12.2	20.0
Carbon disulfide	Ave	0.8373	0.6065	0.1000	0.0145	0.0200	-27.6*	20.0
3-Chloro-1-propene	Ave	0.3607	0.2950		0.0164	0.0200	-18.2	20.0
Methyl acetate	Ave	0.2190	0.2129	0.1000	0.0972	0.100	-2.8	20.0
Methylene Chloride	Ave	0.3828	0.3744	0.1000	0.0196	0.0200	-2.2	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0269		0.205	0.200	2.5	50.0
Acrylonitrile	Ave	0.0984	0.1149		0.233	0.200	16.7	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7657	0.1000	0.0186	0.0200	-7.2	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3510	0.1000	0.0202	0.0200	1.0	20.0
Hexane	Ave	0.2621	0.1979		0.0151	0.0200	-24.5*	20.0
1,1-Dichloroethane	Ave	0.4365	0.4224	0.2000	0.0193	0.0200	-3.3	20.0
Vinyl acetate	Ave	0.4147	0.4077		0.0197	0.0200	-1.7	50.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3506	0.1000	0.0192	0.0200	-3.8	20.0
2,2-Dichloropropane	Ave	0.1941	0.1637		0.0169	0.0200	-15.7	20.0
2-Butanone (MEK)	Ave	0.1151	0.1407	0.0100	0.0489	0.0400	22.2*	20.0
Chlorobromomethane	Ave	0.2064	0.2079		0.0201	0.0200	0.7	20.0
Tetrahydrofuran	Ave	0.0782	0.0793		0.0406	0.0400	1.4	20.0
Chloroform	Ave	0.4131	0.4132	0.2000	0.0200	0.0200	0.0	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2616	0.1000	0.0176	0.0200	-12.2	20.0
Cyclohexane	Ave	0.2819	0.2251	0.1000	0.0160	0.0200	-20.2*	20.0
1,1-Dichloropropene	Ave	0.3510	0.3166		0.0180	0.0200	-9.8	20.0
Carbon tetrachloride	Ave	0.2744	0.2171	0.1000	0.0158	0.0200	-20.9*	20.0
Isobutyl alcohol	Ave	0.0085	0.0065		0.382	0.500	-23.6*	20.0
Benzene	Ave	1.041	1.051	0.5000	0.0202	0.0200	0.9	20.0
1,2-Dichloroethane	Ave	0.3781	0.3451	0.1000	0.0183	0.0200	-8.7	20.0
n-Heptane	Lin1		0.1207		0.0142	0.0200	-29.1*	20.0
Trichloroethene	Ave	0.2817	0.2613	0.1500	0.0185	0.0200	-7.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275664/3 Calibration Date: 04/21/2017 09:29

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963308.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2482	0.1000	0.0158	0.0200	-20.9*	20.0
1,2-Dichloropropane	Ave	0.2387	0.2356	0.1000	0.0197	0.0200	-1.3	20.0
1,4-Dioxane	Ave	0.0030	0.0029		0.384	0.400	-4.1	50.0
Dibromomethane	Ave	0.1687	0.1795		0.0213	0.0200	6.4	20.0
Dichlorobromomethane	Ave	0.3121	0.2821	0.1500	0.0181	0.0200	-9.6	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1555		0.0368	0.0400	-8.0	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3573	0.1500	0.0199	0.0200	-0.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2504	0.0500	0.0422	0.0400	5.5	20.0
Toluene	Ave	1.480	1.443	0.4000	0.0195	0.0200	-2.5	20.0
trans-1,3-Dichloropropene	Lin1		0.4319	0.1000	0.0177	0.0200	-11.7	20.0
Ethyl methacrylate	Ave	0.4079	0.4045		0.0198	0.0200	-0.8	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2976	0.1000	0.0198	0.0200	-1.0	20.0
1,3-Dichloropropane	Ave	0.5821	0.5576		0.0192	0.0200	-4.2	20.0
Tetrachloroethene	Ave	0.3436	0.3409	0.1500	0.0198	0.0200	-0.8	20.0
2-Hexanone	Ave	0.2026	0.2429	0.0500	0.0480	0.0400	19.9	20.0
Chlorodibromomethane	Lin1		0.2496		0.0171	0.0200	-14.6	20.0
Ethylene Dibromide	Ave	0.3086	0.3077		0.0199	0.0200	-0.3	20.0
Chlorobenzene	Ave	0.996	0.9533	0.3000	0.0191	0.0200	-4.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2893		0.0190	0.0200	-5.0	20.0
Ethylbenzene	Ave	0.5054	0.4910		0.0194	0.0200	-2.9	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6099		0.0191	0.0200	-4.6	20.0
o-Xylene	Ave	0.6325	0.6048		0.0191	0.0200	-4.4	20.0
Styrene	Ave	1.043	1.043	0.3000	0.0200	0.0200	-0.0	20.0
Bromoform	Lin1		0.1504	0.1000	0.0185	0.0200	-7.3	20.0
Isopropylbenzene	Ave	1.482	1.425	0.1000	0.0192	0.0200	-3.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7470	0.3000	0.0198	0.0200	-0.9	20.0
Bromobenzene	Ave	0.7530	0.7220		0.0192	0.0200	-4.1	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2629		0.0187	0.0200	-6.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1461		0.0269	0.0200	34.4*	20.0
N-Propylbenzene	Ave	0.7275	0.6959		0.0191	0.0200	-4.4	20.0
2-Chlorotoluene	Ave	0.7100	0.6185		0.0174	0.0200	-12.9	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.026		0.0182	0.0200	-8.8	20.0
4-Chlorotoluene	Ave	0.7119	0.6705		0.0188	0.0200	-5.8	20.0
tert-Butylbenzene	Ave	2.002	1.905		0.0190	0.0200	-4.8	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.170		0.0185	0.0200	-7.3	20.0
sec-Butylbenzene	Ave	0.5471	0.4771		0.0174	0.0200	-12.8	20.0
1,3-Dichlorobenzene	Ave	1.429	1.299	0.6000	0.0182	0.0200	-9.1	20.0
4-Isopropyltoluene	Ave	2.234	2.022		0.0181	0.0200	-9.5	20.0
1,4-Dichlorobenzene	Ave	1.488	1.374	0.5000	0.0185	0.0200	-7.7	20.0
n-Butylbenzene	Ave	1.947	1.634		0.0168	0.0200	-16.1	20.0
1,2-Dichlorobenzene	Ave	1.428	1.304	0.4000	0.0183	0.0200	-8.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVIS 240-275664/3 Calibration Date: 04/21/2017 09:29

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963308.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1371	0.0500	0.0166	0.0200	-16.8	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.6167	0.2000	0.0148	0.0200	-26.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2478		0.0149	0.0200	-25.4*	20.0
Naphthalene	Ave	2.550	1.906		0.0150	0.0200	-25.2	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.5527		0.0133	0.0200	-33.5*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2190		0.0200	0.0200	-0.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2791		0.0191	0.0200	-4.4	20.0
Toluene-d8 (Surr)	Ave	1.264	1.272		0.0201	0.0200	0.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4796		0.0209	0.0200	4.5	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: UX963188.D Lab Sample ID: MB 240-274915/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/17/2017 11:28

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-274915/4	UX963184.D	04/17/2017 09:50
	LCSD 240-274915/5	UX963185.D	04/17/2017 10:16
TB-041217	240-78035-1	UX963200.D	04/17/2017 17:00
MRC-MW13A-041217	240-78035-3	UX963202.D	04/17/2017 17:48
MRC-MW12C-041217	240-78035-4	UX963203.D	04/17/2017 18:11
MRC-MW63A-041217	240-78035-5	UX963204.D	04/17/2017 18:35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274915/8

Matrix: Water | Lab File ID: UX963188.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 11:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274915/8

Matrix: Water | Lab File ID: UX963188.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 11:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.693	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963184.D

Lab ID: LCS 240-274915/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.5	93	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.9	105	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.6	88	65-144	
1,1,2-Trichloroethane	20.0	20.7	104	76-121	
1,1-Dichloroethane	20.0	19.4	97	74-120	
1,1-Dichloroethene	20.0	20.1	100	65-127	
1,2,4-Trichlorobenzene	20.0	15.7	79	34-141	
1,2-Dibromo-3-Chloropropane	20.0	17.2	86	50-130	
Ethylene Dibromide	20.0	19.8	99	80-120	
1,2-Dichlorobenzene	20.0	19.4	97	80-120	
1,2-Dichloroethane	20.0	18.2	91	68-133	
1,2-Dichloropropane	20.0	20.8	104	78-127	
1,3-Dichlorobenzene	20.0	20.0	100	80-120	
1,4-Dichlorobenzene	20.0	19.7	99	80-120	
2-Butanone (MEK)	40.0	41.9	105	43-149	
2-Hexanone	40.0	44.9	112	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	41.3	103	53-144	
Acetone	40.0	30.0	75	35-131	
Benzene	20.0	20.8	104	79-120	
Dichlorobromomethane	20.0	19.4	97	79-125	
Bromoform	20.0	20.4	102	55-145	
Bromomethane	20.0	19.8	99	17-158	
Carbon disulfide	20.0	15.8	79	49-141	
Carbon tetrachloride	20.0	17.1	85	55-171	
Chlorobenzene	20.0	19.8	99	80-120	
Chloroethane	20.0	21.2	106	10-149	
Chloroform	20.0	20.4	102	80-120	
Chloromethane	20.0	19.1	96	59-124	
cis-1,2-Dichloroethene	20.0	19.6	98	77-120	
cis-1,3-Dichloropropene	20.0	21.2	106	75-120	
Cyclohexane	20.0	19.6	98	66-135	
Chlorodibromomethane	20.0	17.8	89	64-129	
Dichlorodifluoromethane	20.0	18.8	94	42-141	
Ethylbenzene	20.0	19.8	99	80-120	
Isopropylbenzene	20.0	19.8	99	80-128	
Methyl acetate	40.0	38.9	97	63-137	
Methyl tert-butyl ether	20.0	19.2	96	73-120	
Methylcyclohexane	20.0	18.0	90	63-141	
Methylene Chloride	20.0	20.2	101	64-140	
Styrene	20.0	20.9	104	80-121	
Tetrachloroethene	20.0	20.0	100	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963184.D

Lab ID: LCS 240-274915/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.0	100	78-120	
trans-1,2-Dichloroethene	20.0	22.3	112	74-124	
trans-1,3-Dichloropropene	20.0	17.4	87	67-120	
Trichloroethene	20.0	19.3	97	76-124	
Trichlorofluoromethane	20.0	17.4	87	27-176	
Vinyl chloride	20.0	19.0	95	65-124	
Xylenes, Total	40.0	39.6	99	80-120	
m-Xylene & p-Xylene	20.0	19.7	98	80-120	
o-Xylene	20.0	19.9	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963185.D

Lab ID: LCSD 240-274915/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.7	94	1	35	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.7	103	1	35	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.8	89	1	35	65-144	
1,1,2-Trichloroethane	20.0	20.0	100	4	35	76-121	
1,1-Dichloroethane	20.0	19.1	95	2	35	74-120	
1,1-Dichloroethene	20.0	19.5	97	3	35	65-127	
1,2,4-Trichlorobenzene	20.0	16.6	83	6	35	34-141	
1,2-Dibromo-3-Chloropropane	20.0	16.7	84	2	35	50-130	
Ethylene Dibromide	20.0	19.0	95	4	35	80-120	
1,2-Dichlorobenzene	20.0	19.0	95	2	35	80-120	
1,2-Dichloroethane	20.0	18.3	92	1	35	68-133	
1,2-Dichloropropane	20.0	20.2	101	3	35	78-127	
1,3-Dichlorobenzene	20.0	19.2	96	4	35	80-120	
1,4-Dichlorobenzene	20.0	19.3	97	2	35	80-120	
2-Butanone (MEK)	40.0	41.1	103	2	35	43-149	
2-Hexanone	40.0	40.5	101	10	35	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	40.1	100	3	35	53-144	
Acetone	40.0	29.6	74	1	35	35-131	
Benzene	20.0	20.7	103	0	35	79-120	
Dichlorobromomethane	20.0	19.1	96	1	35	79-125	
Bromoform	20.0	18.1	91	12	35	55-145	
Bromomethane	20.0	21.1	106	6	35	17-158	
Carbon disulfide	20.0	16.0	80	1	35	49-141	
Carbon tetrachloride	20.0	17.6	88	3	35	55-171	
Chlorobenzene	20.0	18.6	93	6	35	80-120	
Chloroethane	20.0	22.2	111	5	35	10-149	
Chloroform	20.0	20.8	104	2	35	80-120	
Chloromethane	20.0	20.7	104	8	35	59-124	
cis-1,2-Dichloroethene	20.0	19.5	98	0	35	77-120	
cis-1,3-Dichloropropene	20.0	20.7	104	2	35	75-120	
Cyclohexane	20.0	19.2	96	2	35	66-135	
Chlorodibromomethane	20.0	17.4	87	3	35	64-129	
Dichlorodifluoromethane	20.0	19.6	98	4	35	42-141	
Ethylbenzene	20.0	18.8	94	5	35	80-120	
Isopropylbenzene	20.0	19.2	96	3	35	80-128	
Methyl acetate	40.0	36.9	92	5	35	63-137	
Methyl tert-butyl ether	20.0	18.5	92	4	35	73-120	
Methylcyclohexane	20.0	18.1	91	1	35	63-141	
Methylene Chloride	20.0	19.8	99	2	35	64-140	
Styrene	20.0	19.7	98	6	35	80-121	
Tetrachloroethene	20.0	19.3	96	4	35	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963185.D

Lab ID: LCSD 240-274915/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	20.0	19.1	95	5	35	78-120	
trans-1,2-Dichloroethene	20.0	21.8	109	2	35	74-124	
trans-1,3-Dichloropropene	20.0	16.6	83	5	35	67-120	
Trichloroethene	20.0	19.3	96	0	35	76-124	
Trichlorofluoromethane	20.0	17.7	89	2	35	27-176	
Vinyl chloride	20.0	20.5	103	8	35	65-124	
Xylenes, Total	40.0	37.6	94	5	35	80-120	
m-Xylene & p-Xylene	20.0	18.8	94	4	35	80-120	
o-Xylene	20.0	18.8	94	6	35	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: UXM1766.D Lab Sample ID: MB 240-275134/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 04/18/2017 11:40

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-275134/8	UXM1767.D	04/18/2017 12:03
MRC-MW12B-041217	240-78035-2	UXM1768.D	04/18/2017 12:48
MRC-MW12B-041217 MS	240-78035-2 MS	UXM1769.D	04/18/2017 13:10
MRC-MW12B-041217 MSD	240-78035-2 MSD	UXM1770.D	04/18/2017 13:33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-275134/7

Matrix: Water | Lab File ID: UXM1766.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2017 11:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275134 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-275134/7

Matrix: Water | Lab File ID: UXM1766.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/18/2017 11:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275134 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	91		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		61-138

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1767.D

Lab ID: LCS 240-275134/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	19.3	97	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.4	102	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.9	105	65-144	
1,1,2-Trichloroethane	20.0	20.2	101	76-121	
1,1-Dichloroethane	20.0	19.7	98	74-120	
1,1-Dichloroethene	20.0	19.7	99	65-127	
1,2,4-Trichlorobenzene	20.0	19.7	99	34-141	
1,2-Dibromo-3-Chloropropane	20.0	18.8	94	50-130	
Ethylene Dibromide	20.0	19.9	100	80-120	
1,2-Dichlorobenzene	20.0	20.5	103	80-120	
1,2-Dichloroethane	20.0	18.6	93	68-133	
1,2-Dichloropropane	20.0	19.3	97	78-127	
1,3-Dichlorobenzene	20.0	19.7	99	80-120	
1,4-Dichlorobenzene	20.0	19.6	98	80-120	
2-Butanone (MEK)	40.0	33.8	85	43-149	
2-Hexanone	40.0	38.1	95	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	36.4	91	53-144	
Acetone	40.0	29.2	73	35-131	
Benzene	20.0	19.0	95	79-120	
Dichlorobromomethane	20.0	18.0	90	79-125	
Bromoform	20.0	17.2	86	55-145	
Bromomethane	20.0	18.7	94	17-158	
Carbon disulfide	20.0	19.7	99	49-141	
Carbon tetrachloride	20.0	17.9	89	55-171	
Chlorobenzene	20.0	19.3	96	80-120	
Chloroethane	20.0	21.4	107	10-149	
Chloroform	20.0	19.0	95	80-120	
Chloromethane	20.0	17.2	86	59-124	
cis-1,2-Dichloroethene	20.0	18.9	94	77-120	
cis-1,3-Dichloropropene	20.0	17.2	86	75-120	
Cyclohexane	20.0	19.6	98	66-135	
Chlorodibromomethane	20.0	18.3	92	64-129	
Dichlorodifluoromethane	20.0	16.0	80	42-141	
Ethylbenzene	20.0	19.9	100	80-120	
Isopropylbenzene	20.0	20.1	100	80-128	
Methyl acetate	40.0	38.8	97	63-137	
Methyl tert-butyl ether	20.0	18.8	94	73-120	
Methylcyclohexane	20.0	17.7	88	63-141	
Methylene Chloride	20.0	18.7	94	64-140	
Styrene	20.0	19.6	98	80-121	
Tetrachloroethene	20.0	19.7	99	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1767.D

Lab ID: LCS 240-275134/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.3	102	78-120	
trans-1,2-Dichloroethene	20.0	19.3	96	74-124	
trans-1,3-Dichloropropene	20.0	18.6	93	67-120	
Trichloroethene	20.0	18.3	92	76-124	
Trichlorofluoromethane	20.0	18.9	94	27-176	
Vinyl chloride	20.0	19.7	98	65-124	
Xylenes, Total	40.0	40.1	100	80-120	
m-Xylene & p-Xylene	20.0	19.8	99	80-120	
o-Xylene	20.0	20.3	102	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1769.D

Lab ID: 240-78035-2 MS Client ID: MRC-MW12B-041217 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	200	2.3 U	194	97	57-156	
1,1,2,2-Tetrachloroethane	200	3.2 U	193	97	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	200	4.1 U	203	101	58-137	
1,1,2-Trichloroethane	200	3.4 U	198	99	68-127	
1,1-Dichloroethane	200	9.9 J	201	96	69-122	
1,1-Dichloroethene	200	76	265	95	62-127	
1,2,4-Trichlorobenzene	200	4.0 J	199	97	26-138	
1,2-Dibromo-3-Chloropropane	200	4.7 U	179	90	48-130	
Ethylene Dibromide	200	2.3 U	198	99	73-121	
1,2-Dichlorobenzene	200	2.6 U	204	102	70-120	
1,2-Dichloroethane	200	3.0 U	184	92	64-138	
1,2-Dichloropropane	200	3.0 U	190	95	72-131	
1,3-Dichlorobenzene	200	3.2 U	199	99	71-120	
1,4-Dichlorobenzene	200	2.3 U	195	98	72-120	
2-Butanone (MEK)	400	10 U	305	76	34-153	
2-Hexanone	400	12 U	342	85	21-184	
4-Methyl-2-pentanone (MIBK)	400	7.1 U	327	82	53-147	
Acetone	400	18 U	284	71	19-133	
Benzene	200	2.8 U	192	96	69-127	
Dichlorobromomethane	200	3.0 U	179	89	75-128	
Bromoform	200	4.3 U	175	87	61-135	
Bromomethane	200	4.2 U	193	96	10-148	
Carbon disulfide	200	3.4 U	198	99	46-143	
Carbon tetrachloride	200	3.5 U	184	92	53-175	
Chlorobenzene	200	3.2 U	198	99	76-120	
Chloroethane	200	4.1 U	215	108	10-141	
Chloroform	200	3.1 U	190	95	74-125	
Chloromethane	200	4.3 U	173	87	34-127	
cis-1,2-Dichloroethene	200	170	358	95	69-127	
cis-1,3-Dichloropropene	200	2.6 U	167	84	68-120	
Cyclohexane	200	4.4 U	188	94	56-135	
Chlorodibromomethane	200	2.5 U	184	92	62-131	
Dichlorodifluoromethane	200	5.0 U	161	81	45-130	
Ethylbenzene	200	2.6 U	210	105	72-121	
Isopropylbenzene	200	2.1 U	209	104	70-132	
Methyl acetate	400	14 U	356	89	52-139	
Methyl tert-butyl ether	200	2.7 U	180	90	67-125	
Methylcyclohexane	200	4.5 U	171	85	46-139	
Methylene Chloride	200	5.3 U	187	93	52-137	
Styrene	200	2.3 U	202	101	74-125	
Tetrachloroethene	200	3.0 U	201	100	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1769.D

Lab ID: 240-78035-2 MS Client ID: MRC-MW12B-041217 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	200	2.3 U	205	103	69-125	
trans-1,2-Dichloroethene	200	2.9 U	196	98	66-131	
trans-1,3-Dichloropropene	200	3.1 U	181	91	59-120	
Trichloroethene	200	270	446	88	68-129	
Trichlorofluoromethane	200	5.0 U	189	94	28-172	
Vinyl chloride	200	4.5 U	197	98	55-123	
Xylenes, Total	400	2.4 U	412	103	71-122	
m-Xylene & p-Xylene	200	2.4 U	205	102	70-121	
o-Xylene	200	2.8 U	207	104	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1770.D

Lab ID: 240-78035-2 MSD Client ID: MRC-MW12B-041217 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	200	188	94	3	13	57-156	
1,1,2,2-Tetrachloroethane	200	192	96	1	17	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	200	227	113	11	35	58-137	
1,1,2-Trichloroethane	200	194	97	2	11	68-127	
1,1-Dichloroethane	200	189	89	6	11	69-122	
1,1-Dichloroethene	200	256	90	4	14	62-127	
1,2,4-Trichlorobenzene	200	197	96	1	35	26-138	
1,2-Dibromo-3-Chloropropane	200	178	89	0	31	48-130	
Ethylene Dibromide	200	182	91	8	12	73-121	
1,2-Dichlorobenzene	200	196	98	4	19	70-120	
1,2-Dichloroethane	200	173	87	6	11	64-138	
1,2-Dichloropropane	200	175	88	8	12	72-131	
1,3-Dichlorobenzene	200	188	94	6	18	71-120	
1,4-Dichlorobenzene	200	190	95	3	17	72-120	
2-Butanone (MEK)	400	302	76	1	23	34-153	
2-Hexanone	400	347	87	2	12	21-184	
4-Methyl-2-pentanone (MIBK)	400	321	80	2	16	53-147	
Acetone	400	271	68	5	35	19-133	
Benzene	200	184	92	4	10	69-127	
Dichlorobromomethane	200	170	85	5	13	75-128	
Bromoform	200	167	83	5	13	61-135	
Bromomethane	200	178	89	8	35	10-148	
Carbon disulfide	200	192	96	3	18	46-143	
Carbon tetrachloride	200	180	90	2	17	53-175	
Chlorobenzene	200	189	94	5	12	76-120	
Chloroethane	200	205	103	5	35	10-141	
Chloroform	200	178	89	7	11	74-125	
Chloromethane	200	166	83	5	25	34-127	
cis-1,2-Dichloroethene	200	325	78	10	11	69-127	
cis-1,3-Dichloropropene	200	162	81	3	13	68-120	
Cyclohexane	200	215	108	13	35	56-135	
Chlorodibromomethane	200	180	90	2	15	62-131	
Dichlorodifluoromethane	200	181	90	11	34	45-130	
Ethylbenzene	200	198	99	6	15	72-121	
Isopropylbenzene	200	197	98	6	16	70-132	
Methyl acetate	400	346	86	3	14	52-139	
Methyl tert-butyl ether	200	174	87	4	12	67-125	
Methylcyclohexane	200	197	99	15	35	46-139	
Methylene Chloride	200	170	85	9	12	52-137	
Styrene	200	193	97	4	14	74-125	
Tetrachloroethene	200	195	98	3	18	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1770.D

Lab ID: 240-78035-2 MSD Client ID: MRC-MW12B-041217 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	200	197	98	4	14	69-125	
trans-1,2-Dichloroethene	200	188	94	4	11	66-131	
trans-1,3-Dichloropropene	200	172	86	5	14	59-120	
Trichloroethene	200	407	68	9	12	68-129	
Trichlorofluoromethane	200	199	99	5	26	28-172	
Vinyl chloride	200	198	99	1	12	55-123	
Xylenes, Total	400	392	98	5	14	71-122	
m-Xylene & p-Xylene	200	195	97	5	15	70-121	
o-Xylene	200	197	99	5	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: U1256598.D Lab Sample ID: MB 240-275429/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 04/19/2017 18:58

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-275429/4	U1256595.D	04/19/2017 17:45
TB-041317	240-78169-1	U1256599.D	04/19/2017 19:23
MRC-MW80B-041417	240-78169-4	U1256601.D	04/19/2017 20:12
MRC-MW22B-041417	240-78169-5	U1256602.D	04/19/2017 20:35
MRC-MW93A-041417	240-78169-7	U1256604.D	04/19/2017 21:22
MRC-MW70A-041417	240-78169-8	U1256605.D	04/19/2017 21:47
MRC-MW70B-041417	240-78169-9	U1256606.D	04/19/2017 22:10
MRC-MW10A-041417	240-78169-10	U1256607.D	04/19/2017 22:32
MRC-MW08A-041417	240-78169-11	U1256608.D	04/19/2017 22:57
MRC-MW02A-041417	240-78169-12	U1256609.D	04/19/2017 23:22
MRC-MW109B-041317	240-78169-2	U1256613.D	04/20/2017 01:02
MRC-MW109A-041417	240-78169-6	U1256614.D	04/20/2017 01:26
MRC-MW109B-041317 MS	240-78169-2 MS	U1256615.D	04/20/2017 01:51
MRC-MW109B-041317 MSD	240-78169-2 MSD	U1256616.D	04/20/2017 02:16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-275429/7

Matrix: Water | Lab File ID: U1256598.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 18:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-275429/7

Matrix: Water | Lab File ID: U1256598.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 18:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-120
1868-53-7	Dibromofluoromethane (Surr)	91		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		61-138

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256595.D

Lab ID: LCS 240-275429/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	22.5	112	64-147	
1,1,2,2-Tetrachloroethane	20.0	18.8	94	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.7	113	65-144	
1,1,2-Trichloroethane	20.0	19.9	100	76-121	
1,1-Dichloroethane	20.0	20.1	101	74-120	
1,1-Dichloroethene	20.0	20.5	102	65-127	
1,2,4-Trichlorobenzene	20.0	19.7	98	34-141	
1,2-Dibromo-3-Chloropropane	20.0	19.8	99	50-130	
Ethylene Dibromide	20.0	20.0	100	80-120	
1,2-Dichlorobenzene	20.0	20.5	102	80-120	
1,2-Dichloroethane	20.0	20.1	100	68-133	
1,2-Dichloropropane	20.0	20.7	103	78-127	
1,3-Dichlorobenzene	20.0	20.9	105	80-120	
1,4-Dichlorobenzene	20.0	20.5	103	80-120	
2-Butanone (MEK)	40.0	31.7	79	43-149	
2-Hexanone	40.0	34.6	87	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	35.8	90	53-144	
Acetone	40.0	26.8	67	35-131	
Benzene	20.0	20.8	104	79-120	
Dichlorobromomethane	20.0	21.5	108	79-125	
Bromoform	20.0	17.1	85	55-145	
Bromomethane	20.0	20.9	105	17-158	
Carbon disulfide	20.0	20.4	102	49-141	
Carbon tetrachloride	20.0	23.4	117	55-171	
Chlorobenzene	20.0	20.4	102	80-120	
Chloroethane	20.0	20.4	102	10-149	
Chloroform	20.0	20.6	103	80-120	
Chloromethane	20.0	19.3	97	59-124	
cis-1,2-Dichloroethene	20.0	20.4	102	77-120	
cis-1,3-Dichloropropene	20.0	22.3	112	75-120	
Cyclohexane	20.0	21.9	110	66-135	
Chlorodibromomethane	20.0	21.4	107	64-129	
Dichlorodifluoromethane	20.0	20.3	101	42-141	
Ethylbenzene	20.0	21.1	106	80-120	
Isopropylbenzene	20.0	21.4	107	80-128	
Methyl acetate	40.0	37.9	95	63-137	
Methyl tert-butyl ether	20.0	20.7	104	73-120	
Methylcyclohexane	20.0	20.9	105	63-141	
Methylene Chloride	20.0	17.6	88	64-140	
Styrene	20.0	21.0	105	80-121	
Tetrachloroethene	20.0	21.0	105	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256595.D

Lab ID: LCS 240-275429/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.1	100	78-120	
trans-1,2-Dichloroethene	20.0	20.9	104	74-124	
trans-1,3-Dichloropropene	20.0	18.6	93	67-120	
Trichloroethene	20.0	20.5	103	76-124	
Trichlorofluoromethane	20.0	23.8	119	27-176	
Vinyl chloride	20.0	19.8	99	65-124	
Xylenes, Total	40.0	42.0	105	80-120	
m-Xylene & p-Xylene	20.0	21.2	106	80-120	
o-Xylene	20.0	20.8	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256615.D

Lab ID: 240-78169-2 MS Client ID: MRC-MW109B-041317 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	40.0	0.46 U	40.4	101	57-156	
1,1,2,2-Tetrachloroethane	40.0	0.64 U	40.2	101	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	40.0	0.82 U	40.3	101	58-137	
1,1,2-Trichloroethane	40.0	0.68 U	40.6	101	68-127	
1,1-Dichloroethane	40.0	0.50 U	38.8	97	69-122	
1,1-Dichloroethene	40.0	0.54 U	40.2	101	62-127	
1,2,4-Trichlorobenzene	40.0	0.54 U	37.5	94	26-138	
1,2-Dibromo-3-Chloropropane	40.0	0.94 U	41.8	104	48-130	
Ethylene Dibromide	40.0	0.46 U	40.1	100	73-121	
1,2-Dichlorobenzene	40.0	0.52 U	39.3	98	70-120	
1,2-Dichloroethane	40.0	0.60 U	41.9	105	64-138	
1,2-Dichloropropane	40.0	0.60 U	40.0	100	72-131	
1,3-Dichlorobenzene	40.0	0.64 U	38.3	96	71-120	
1,4-Dichlorobenzene	40.0	0.46 U	37.8	95	72-120	
2-Butanone (MEK)	80.0	2.0 U	73.9	92	34-153	
2-Hexanone	80.0	2.5 U	81.8	102	21-184	
4-Methyl-2-pentanone (MIBK)	80.0	1.4 U	81.8	102	53-147	
Acetone	80.0	3.5 U	159	199	19-133	F1
Benzene	40.0	34	71.7	94	69-127	
Dichlorobromomethane	40.0	0.60 U	40.1	100	75-128	
Bromoform	40.0	0.86 U	26.9	67	61-135	
Bromomethane	40.0	0.84 U	42.6	106	10-148	
Carbon disulfide	40.0	0.68 U	37.9	95	46-143	
Carbon tetrachloride	40.0	0.70 U	35.3	88	53-175	
Chlorobenzene	40.0	0.64 U	38.5	96	76-120	
Chloroethane	40.0	0.82 U	41.5	104	10-141	
Chloroform	40.0	0.62 U	40.4	101	74-125	
Chloromethane	40.0	0.86 U	37.2	93	34-127	
cis-1,2-Dichloroethene	40.0	74	109	88	69-127	
cis-1,3-Dichloropropene	40.0	0.52 U	38.4	96	68-120	
Cyclohexane	40.0	0.88 U	34.6	87	56-135	
Chlorodibromomethane	40.0	0.50 U	36.9	92	62-131	
Dichlorodifluoromethane	40.0	1.0 U	36.7	92	45-130	
Ethylbenzene	40.0	0.52 U	39.2	98	72-121	
Isopropylbenzene	40.0	1.2 J	40.4	98	70-132	
Methyl acetate	80.0	2.9 U	80.0	100	52-139	
Methyl tert-butyl ether	40.0	4.1	46.9	107	67-125	
Methylcyclohexane	40.0	0.90 U	36.1	90	46-139	
Methylene Chloride	40.0	1.1 U	34.9	87	52-137	
Styrene	40.0	0.46 U	39.9	100	74-125	
Tetrachloroethene	40.0	0.60 U	37.7	94	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256615.D

Lab ID: 240-78169-2 MS Client ID: MRC-MW109B-041317 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	40.0	0.46 U	37.9	95	69-125	
trans-1,2-Dichloroethene	40.0	6.6	46.7	100	66-131	
trans-1,3-Dichloropropene	40.0	0.62 U	31.7	79	59-120	
Trichloroethene	40.0	25	61.4	90	68-129	
Trichlorofluoromethane	40.0	1.0 U	43.7	109	28-172	
Vinyl chloride	40.0	4.8	40.9	90	55-123	
Xylenes, Total	80.0	2.3 J	81.4	99	71-122	
m-Xylene & p-Xylene	40.0	0.48 U	39.5	99	70-121	
o-Xylene	40.0	2.3	41.9	99	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256616.D

Lab ID: 240-78169-2 MSD Client ID: MRC-MW109B-041317 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	40.0	41.0	102	2	13	57-156	
1,1,2,2-Tetrachloroethane	40.0	40.1	100	0	17	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	40.0	38.8	97	4	35	58-137	
1,1,2-Trichloroethane	40.0	41.0	103	1	11	68-127	
1,1-Dichloroethane	40.0	38.5	96	1	11	69-122	
1,1-Dichloroethene	40.0	39.0	98	3	14	62-127	
1,2,4-Trichlorobenzene	40.0	38.5	96	3	35	26-138	
1,2-Dibromo-3-Chloropropane	40.0	42.5	106	2	31	48-130	
Ethylene Dibromide	40.0	40.6	101	1	12	73-121	
1,2-Dichlorobenzene	40.0	39.2	98	0	19	70-120	
1,2-Dichloroethane	40.0	41.3	103	2	11	64-138	
1,2-Dichloropropane	40.0	39.7	99	1	12	72-131	
1,3-Dichlorobenzene	40.0	38.8	97	1	18	71-120	
1,4-Dichlorobenzene	40.0	38.4	96	1	17	72-120	
2-Butanone (MEK)	80.0	72.8	91	1	23	34-153	
2-Hexanone	80.0	81.2	102	1	12	21-184	
4-Methyl-2-pentanone (MIBK)	80.0	80.3	100	2	16	53-147	
Acetone	80.0	179	224	12	35	19-133	F1
Benzene	40.0	72.8	97	1	10	69-127	
Dichlorobromomethane	40.0	39.5	99	1	13	75-128	
Bromoform	40.0	25.7	64	4	13	61-135	
Bromomethane	40.0	42.1	105	1	35	10-148	
Carbon disulfide	40.0	38.3	96	1	18	46-143	
Carbon tetrachloride	40.0	37.1	93	5	17	53-175	
Chlorobenzene	40.0	38.9	97	1	12	76-120	
Chloroethane	40.0	41.2	103	1	35	10-141	
Chloroform	40.0	40.4	101	0	11	74-125	
Chloromethane	40.0	37.2	93	0	25	34-127	
cis-1,2-Dichloroethene	40.0	112	94	2	11	69-127	
cis-1,3-Dichloropropene	40.0	38.5	96	0	13	68-120	
Cyclohexane	40.0	35.6	89	3	35	56-135	
Chlorodibromomethane	40.0	35.7	89	3	15	62-131	
Dichlorodifluoromethane	40.0	35.0	88	5	34	45-130	
Ethylbenzene	40.0	40.5	101	3	15	72-121	
Isopropylbenzene	40.0	41.4	100	3	16	70-132	
Methyl acetate	80.0	106	132	28	14	52-139	F2
Methyl tert-butyl ether	40.0	46.6	106	1	12	67-125	
Methylcyclohexane	40.0	36.5	91	1	35	46-139	
Methylene Chloride	40.0	34.1	85	2	12	52-137	
Styrene	40.0	40.3	101	1	14	74-125	
Tetrachloroethene	40.0	38.5	96	2	18	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256616.D

Lab ID: 240-78169-2 MSD Client ID: MRC-MW109B-041317 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	40.0	38.6	97	2	14	69-125	
trans-1,2-Dichloroethene	40.0	45.9	98	2	11	66-131	
trans-1,3-Dichloropropene	40.0	33.6	84	6	14	59-120	
Trichloroethene	40.0	63.0	94	3	12	68-129	
Trichlorofluoromethane	40.0	41.7	104	5	26	28-172	
Vinyl chloride	40.0	41.3	91	1	12	55-123	
Xylenes, Total	80.0	82.1	100	1	14	71-122	
m-Xylene & p-Xylene	40.0	40.1	100	1	15	70-121	
o-Xylene	40.0	42.0	99	0	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: UX963283.D Lab Sample ID: MB 240-275600/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/20/2017 17:35

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-275600/4	UX963280.D	04/20/2017 16:27
TB-041717	240-78206-1	UX963298.D	04/20/2017 23:33
MRC-MW27A-041717	240-78206-2	UX963299.D	04/21/2017 00:04
MRC-MW27B-041717	240-78206-3	UX963300.D	04/21/2017 01:58
MRC-MW27C-041717	240-78206-4	UX963301.D	04/21/2017 02:22
MRC-DUP10-041717	240-78206-6	UX963302.D	04/21/2017 02:46
	240-78172-E-3 MS	UX963303.D	04/21/2017 03:10
	240-78172-H-3 MSD	UX963304.D	04/21/2017 03:35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-275600/7

Matrix: Water | Lab File ID: UX963283.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/20/2017 17:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-275600/7

Matrix: Water | Lab File ID: UX963283.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/20/2017 17:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275600 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.606	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963280.D

Lab ID: LCS 240-275600/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	19.6	98	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.4	102	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.6	98	65-144	
1,1,2-Trichloroethane	20.0	20.6	103	76-121	
1,1-Dichloroethane	20.0	19.2	96	74-120	
1,1-Dichloroethene	20.0	20.4	102	65-127	
1,2,4-Trichlorobenzene	20.0	16.5	82	34-141	
1,2-Dibromo-3-Chloropropane	20.0	18.7	93	50-130	
Ethylene Dibromide	20.0	19.7	98	80-120	
1,2-Dichlorobenzene	20.0	19.4	97	80-120	
1,2-Dichloroethane	20.0	18.1	91	68-133	
1,2-Dichloropropane	20.0	21.2	106	78-127	
1,3-Dichlorobenzene	20.0	19.7	99	80-120	
1,4-Dichlorobenzene	20.0	19.6	98	80-120	
2-Butanone (MEK)	40.0	46.2	115	43-149	
2-Hexanone	40.0	44.3	111	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	43.5	109	53-144	
Acetone	40.0	32.6	81	35-131	
Benzene	20.0	21.0	105	79-120	
Dichlorobromomethane	20.0	19.5	97	79-125	
Bromoform	20.0	20.4	102	55-145	
Bromomethane	20.0	21.6	108	17-158	
Carbon disulfide	20.0	16.4	82	49-141	
Carbon tetrachloride	20.0	17.4	87	55-171	
Chlorobenzene	20.0	19.2	96	80-120	
Chloroethane	20.0	23.7	119	10-149	
Chloroform	20.0	21.4	107	80-120	
Chloromethane	20.0	22.0	110	59-124	
cis-1,2-Dichloroethene	20.0	20.3	102	77-120	
cis-1,3-Dichloropropene	20.0	21.1	105	75-120	
Cyclohexane	20.0	20.9	105	66-135	
Chlorodibromomethane	20.0	17.8	89	64-129	
Dichlorodifluoromethane	20.0	25.8	129	42-141	
Ethylbenzene	20.0	19.7	98	80-120	
Isopropylbenzene	20.0	19.8	99	80-128	
Methyl acetate	40.0	41.0	102	63-137	
Methyl tert-butyl ether	20.0	19.1	96	73-120	
Methylcyclohexane	20.0	19.8	99	63-141	
Methylene Chloride	20.0	20.1	100	64-140	
Styrene	20.0	20.1	100	80-121	
Tetrachloroethene	20.0	20.6	103	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963280.D

Lab ID: LCS 240-275600/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	19.7	98	78-120	
trans-1,2-Dichloroethene	20.0	20.8	104	74-124	
trans-1,3-Dichloropropene	20.0	17.2	86	67-120	
Trichloroethene	20.0	19.2	96	76-124	
Trichlorofluoromethane	20.0	21.5	107	27-176	
Vinyl chloride	20.0	22.4	112	65-124	
Xylenes, Total	40.0	38.0	95	80-120	
m-Xylene & p-Xylene	20.0	19.2	96	80-120	
o-Xylene	20.0	18.8	94	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963303.D

Lab ID: 240-78172-E-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	50.0	0.58 U	41.9	84	57-156	
1,1-Dichloroethane	50.0	0.82 J	47.3	93	69-122	
1,1-Dichloroethene	50.0	0.68 U	46.7	93	62-127	
Benzene	50.0	0.70 U	49.7	99	69-127	
Chloroethane	50.0	1.0 U	56.1	112	10-141	
cis-1,2-Dichloroethene	50.0	93	138	90	69-127	
Ethylbenzene	50.0	0.65 U	43.7	87	72-121	
Tetrachloroethene	50.0	0.75 U	44.7	89	69-126	
Toluene	50.0	0.58 U	44.6	89	69-125	
trans-1,2-Dichloroethene	50.0	0.73 U	47.9	96	66-131	
Trichloroethene	50.0	0.83 U	44.4	89	68-129	
Vinyl chloride	50.0	52	97.8	91	55-123	
Xylenes, Total	100	0.60 U	84.7	85	71-122	
m-Xylene & p-Xylene	50.0	0.60 U	42.5	85	70-121	
o-Xylene	50.0	0.70 U	42.2	84	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963304.D

Lab ID: 240-78172-H-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	50.0	44.8	90	7	13	57-156	
1,1-Dichloroethane	50.0	49.6	98	5	11	69-122	
1,1-Dichloroethene	50.0	47.3	95	1	14	62-127	
Benzene	50.0	51.0	102	3	10	69-127	
Chloroethane	50.0	59.5	119	6	35	10-141	
cis-1,2-Dichloroethene	50.0	136	85	2	11	69-127	
Ethylbenzene	50.0	43.9	88	1	15	72-121	
Tetrachloroethene	50.0	44.1	88	1	18	69-126	
Toluene	50.0	46.1	92	3	14	69-125	
trans-1,2-Dichloroethene	50.0	49.7	99	4	11	66-131	
Trichloroethene	50.0	48.4	97	9	12	68-129	
Vinyl chloride	50.0	101	98	4	12	55-123	
Xylenes, Total	100	89.2	89	5	14	71-122	
m-Xylene & p-Xylene	50.0	44.5	89	4	15	70-121	
o-Xylene	50.0	44.7	89	6	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab File ID: UX963312.D Lab Sample ID: MB 240-275664/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 04/21/2017 11:05

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-275664/4	UX963309.D	04/21/2017 09:53
MRC-MW27C-041717	240-78206-4	UX963316.D	04/21/2017 14:59
MRC-MW27A-041717	240-78206-2	UX963317.D	04/21/2017 15:22
MRC-MW27B-041717	240-78206-3	UX963318.D	04/21/2017 15:46

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-275664/7

Matrix: Water | Lab File ID: UX963312.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 11:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275664 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-275664/7

Matrix: Water | Lab File ID: UX963312.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/21/2017 11:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275664 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.585	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		61-138

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963309.D

Lab ID: LCS 240-275664/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	19.0	95	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.5	102	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	16.6	83	65-144	
1,1,2-Trichloroethane	20.0	19.8	99	76-121	
1,1-Dichloroethane	20.0	19.7	99	74-120	
1,1-Dichloroethene	20.0	19.8	99	65-127	
1,2,4-Trichlorobenzene	20.0	16.3	82	34-141	
1,2-Dibromo-3-Chloropropane	20.0	17.3	86	50-130	
Ethylene Dibromide	20.0	19.2	96	80-120	
1,2-Dichlorobenzene	20.0	19.0	95	80-120	
1,2-Dichloroethane	20.0	18.3	91	68-133	
1,2-Dichloropropane	20.0	20.9	105	78-127	
1,3-Dichlorobenzene	20.0	19.1	95	80-120	
1,4-Dichlorobenzene	20.0	18.8	94	80-120	
2-Butanone (MEK)	40.0	44.3	111	43-149	
2-Hexanone	40.0	43.8	109	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	41.7	104	53-144	
Acetone	40.0	31.7	79	35-131	
Benzene	20.0	20.8	104	79-120	
Dichlorobromomethane	20.0	18.8	94	79-125	
Bromoform	20.0	18.1	91	55-145	
Bromomethane	20.0	20.3	102	17-158	
Carbon disulfide	20.0	16.3	81	49-141	
Carbon tetrachloride	20.0	17.1	85	55-171	
Chlorobenzene	20.0	18.9	94	80-120	
Chloroethane	20.0	22.6	113	10-149	
Chloroform	20.0	20.4	102	80-120	
Chloromethane	20.0	21.4	107	59-124	
cis-1,2-Dichloroethene	20.0	20.4	102	77-120	
cis-1,3-Dichloropropene	20.0	21.2	106	75-120	
Cyclohexane	20.0	19.8	99	66-135	
Chlorodibromomethane	20.0	17.1	85	64-129	
Dichlorodifluoromethane	20.0	20.8	104	42-141	
Ethylbenzene	20.0	19.4	97	80-120	
Isopropylbenzene	20.0	19.1	95	80-128	
Methyl acetate	40.0	40.7	102	63-137	
Methyl tert-butyl ether	20.0	19.2	96	73-120	
Methylcyclohexane	20.0	18.3	91	63-141	
Methylene Chloride	20.0	20.1	101	64-140	
Styrene	20.0	19.9	100	80-121	
Tetrachloroethene	20.0	19.8	99	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963309.D

Lab ID: LCS 240-275664/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	19.6	98	78-120	
trans-1,2-Dichloroethene	20.0	21.1	105	74-124	
trans-1,3-Dichloropropene	20.0	16.8	84	67-120	
Trichloroethene	20.0	19.7	99	76-124	
Trichlorofluoromethane	20.0	16.8	84	27-176	
Vinyl chloride	20.0	21.4	107	65-124	
Xylenes, Total	40.0	38.2	96	80-120	
m-Xylene & p-Xylene	20.0	19.2	96	80-120	
o-Xylene	20.0	19.0	95	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: ICIS 240-272636/9 Date Analyzed: 03/30/2017 15:28

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1256168a.D Heated Purge: (Y/N) N

Calibration ID: 39201

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1131500	5.17	877028	7.82	486514	10.03
UPPER LIMIT		2263000	5.67	1754056	8.32	973028	10.53
LOWER LIMIT		565750	4.67	438514	7.32	243257	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272636/19		1156798	5.17	900454	7.82	499033	10.03
CCVIS 240-275429/3		1226987	5.17	946563	7.82	536961	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-041217	240-78035-1	98	99	95	92
MRC-MW12B-041217	240-78035-2	98	96	101	99
MRC-MW13A-041217	240-78035-3	93	95	95	93
MRC-MW12C-041217	240-78035-4	97	98	92	88
MRC-MW63A-041217	240-78035-5	101	96	95	92
TB-041317	240-78169-1	96	96	95	94
MRC-MW109B-041317	240-78169-2	96	98	96	93
MRC-MW80B-041417	240-78169-4	94	93	95	92
MRC-MW22B-041417	240-78169-5	92	94	95	95
MRC-MW109A-041417	240-78169-6	96	97	97	94
MRC-MW93A-041417	240-78169-7	94	95	97	94
MRC-MW70A-041417	240-78169-8	93	96	96	93
MRC-MW70B-041417	240-78169-9	94	95	99	98
MRC-MW10A-041417	240-78169-10	95	96	96	93
MRC-MW08A-041417	240-78169-11	93	98	97	95
MRC-MW02A-041417	240-78169-12	95	97	96	94
TB-041717	240-78206-1	100	97	91	92
MRC-MW27A-041717	240-78206-2	101	97	93	91
MRC-MW27A-041717	240-78206-2	97	97	95	94
MRC-MW27B-041717	240-78206-3	96	95	93	90
MRC-MW27B-041717	240-78206-3	97	96	91	90
MRC-MW27C-041717	240-78206-4	101	99	94	91
MRC-MW27C-041717	240-78206-4	94	95	92	93
MRC-DUP10-041717	240-78206-6	98	97	96	95
	MB 240-274915/8	99	96	94	91
	MB 240-275134/7	91	93	99	96
	MB 240-275429/7	91	94	97	94
	MB 240-275600/7	96	97	93	93
	MB 240-275664/7	98	93	91	93
	LCS 240-274915/4	97	94	98	102
	LCS 240-275134/8	91	90	99	96
	LCS 240-275429/4	94	98	97	95
	LCS 240-275600/4	98	94	94	98
	LCS 240-275664/4	96	93	97	100

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
	LCSD 240-274915/5	100	95	95	96
MRC-MW12B-041217 MS	240-78035-2 MS	92	92	103	100
MRC-MW109B-041317 MS	240-78169-2 MS	97	96	97	95
	240-78172-E-3 MS	100	91	97	100
MRC-MW12B-041217 MSD	240-78035-2 MSD	91	97	101	101
MRC-MW109B-041317 MSD	240-78169-2 MSD	93	101	96	95
	240-78172-H-3 MSD	97	93	95	100

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: CCVIS 240-275429/3 Date Analyzed: 04/19/2017 17:23

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1256594.D Heated Purge: (Y/N) N

Calibration ID: 39201

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1226987	5.17	946563	7.82	536961	10.03
UPPER LIMIT		2453974	5.67	1893126	8.32	1073922	10.53
LOWER LIMIT		613494	4.67	473282	7.32	268481	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-275429/4		1231819	5.17	962695	7.82	540688	10.03
CCV 240-275429/5		1195874	5.17	946969	7.82	520040	10.03
MB 240-275429/7		1166715	5.17	893484	7.82	488777	10.03
240-78169-1	TB-041317	1147177	5.17	914103	7.82	497769	10.03
240-78169-4	MRC-MW80B-041417	1160871	5.17	924011	7.82	490261	10.03
240-78169-5	MRC-MW22B-041417	1149175	5.17	912148	7.82	487499	10.03
240-78169-7	MRC-MW93A-041417	1122499	5.17	877812	7.82	486303	10.03
240-78169-8	MRC-MW70A-041417	1158484	5.17	905545	7.82	501944	10.03
240-78169-9	MRC-MW70B-041417	1125082	5.17	876510	7.82	484820	10.03
240-78169-10	MRC-MW10A-041417	1135929	5.17	898925	7.82	478431	10.03
240-78169-11	MRC-MW08A-041417	1123151	5.17	869937	7.82	465424	10.03
240-78169-12	MRC-MW02A-041417	1115628	5.17	877501	7.82	475456	10.03
240-78169-2	MRC-MW109B-041317	1126585	5.17	878223	7.82	486387	10.03
240-78169-6	MRC-MW109A-041417	1122519	5.17	871695	7.82	468343	10.03
240-78169-2 MS	MRC-MW109B-041317 MS	1168186	5.17	909558	7.82	511085	10.03
240-78169-2 MSD	MRC-MW109B-041317 MSD	1187481	5.17	915401	7.82	519461	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: ICIS 240-272263/9 Date Analyzed: 03/29/2017 15:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1391.D Heated Purge: (Y/N) N

Calibration ID: 39180

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		776481	5.24	664123	7.92	397614	10.16
UPPER LIMIT		1552962	5.74	1328246	8.42	795228	10.66
LOWER LIMIT		388241	4.74	332062	7.42	198807	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272263/20		753863	5.24	641867	7.92	381510	10.16
CCVIS 240-275134/3		894393	5.25	667424	7.93	395804	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: CCVIS 240-275134/3 Date Analyzed: 04/18/2017 10:07

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1762.D Heated Purge: (Y/N) N

Calibration ID: 39171

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		894393	5.25	667424	7.93	395804	10.16
UPPER LIMIT		1788786	5.75	1334848	8.43	791608	10.66
LOWER LIMIT		447197	4.75	333712	7.43	197902	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-275134/5		862834	5.24	640536	7.92	361566	10.16
MB 240-275134/7		827383	5.24	624380	7.93	349254	10.16
LCS 240-275134/8		857905	5.24	656979	7.92	387599	10.16
240-78035-2	MRC-MW12B-041217	787135	5.25	613722	7.93	351396	10.16
240-78035-2 MS	MRC-MW12B-041217 MS	835015	5.24	622533	7.92	377289	10.16
240-78035-2 MSD	MRC-MW12B-041217 MSD	857688	5.24	635461	7.92	378985	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: ICIS 240-253710/11 Date Analyzed: 10/31/2016 14:44

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX959473.D Heated Purge: (Y/N) N

Calibration ID: 36877

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1089945	5.72	845544	8.42	470846	10.66
UPPER LIMIT		2179890	6.22	1691088	8.92	941692	11.16
LOWER LIMIT		544973	5.22	422772	7.92	235423	10.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-253710/22		1016048	5.72	819306	8.42	452555	10.66
CCVIS 240-274915/3		1265262	5.72	989904	8.41	559879	10.65
CCVIS 240-275600/3		1364524	5.72	1091526	8.41	622441	10.65
CCVIS 240-275664/3		1350925	5.73	1069947	8.41	626888	10.66

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: CCVIS 240-274915/3 Date Analyzed: 04/17/2017 09:26

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX963183.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1265262	5.72	989904	8.41	559879	10.65
UPPER LIMIT		2530524	6.22	1979808	8.91	1119758	11.15
LOWER LIMIT		632631	5.22	494952	7.91	279940	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-274915/4		1268819	5.73	1000177	8.41	567565	10.65
LCSD 240-274915/5		1266948	5.72	1034720	8.41	580104	10.65
CCV 240-274915/6		1282672	5.72	1032236	8.41	528908	10.65
MB 240-274915/8		1189518	5.72	974204	8.41	523636	10.65
240-78035-1	TB-041217	1203861	5.74	978489	8.41	504935	10.65
240-78035-3	MRC-MW13A-041217	1230305	5.72	971559	8.41	524826	10.65
240-78035-4	MRC-MW12C-041217	1180561	5.74	969702	8.41	510386	10.65
240-78035-5	MRC-MW63A-041217	1221097	5.73	979817	8.41	509969	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: CCVIS 240-275600/3 Date Analyzed: 04/20/2017 16:05

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX963279.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1364524	5.72	1091526	8.41	622441	10.65
UPPER LIMIT		2729048	6.22	2183052	8.91	1244882	11.15
LOWER LIMIT		682262	5.22	545763	7.91	311221	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-275600/4		1364946	5.74	1110045	8.41	635657	10.65
CCV 240-275600/5		1377444	5.74	1115396	8.41	574007	10.65
MB 240-275600/7		1282157	5.72	1045998	8.41	532324	10.65
240-78206-1	TB-041717	1262658	5.73	1052574	8.41	552181	10.66
240-78206-2	MRC-MW27A-041717	1284386	5.73	1065512	8.41	547752	10.65
240-78206-3	MRC-MW27B-041717	1304891	5.74	1066159	8.41	556774	10.66
240-78206-4	MRC-MW27C-041717	1252573	5.72	1037924	8.41	537167	10.65
240-78206-6	MRC-DUP10-041717	1265694	5.74	1014453	8.42	544397	10.66
240-78172-E-3 MS		1345312	5.74	1072910	8.41	614222	10.65
240-78172-H-3 MSD		1354409	5.73	1100315	8.41	623709	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: CCVIS 240-275664/3 Date Analyzed: 04/21/2017 09:29

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX963308.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1350925	5.73	1069947	8.41	626888	10.66
UPPER LIMIT		2701850	6.23	2139894	8.91	1253776	11.16
LOWER LIMIT		675463	5.23	534974	7.91	313444	10.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-275664/4		1379801	5.73	1119075	8.41	640876	10.66
CCV 240-275664/5		1379249	5.73	1134160	8.41	598945	10.65
MB 240-275664/7		1332750	5.74	1073737	8.41	548539	10.65
240-78206-4	MRC-MW27C-041717	1342892	5.74	1084268	8.42	529791	10.66
240-78206-2	MRC-MW27A-041717	1281644	5.73	1056873	8.41	543888	10.65
240-78206-3	MRC-MW27B-041717	1319953	5.74	1089678	8.41	548313	10.66

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

SAMPLE IDENTIFICATION	MRC-MW80B-041417
COMPOUND	TRICHLOROETHENE
COMPOUND AREA	1111583
INTERNAL STANDARD AMOUNT (ug)	20
DILUTION FACTOR	1
INTERNAL STANDARD AREA	1160871
AVERAGE RRF	0.349

1111583 x 20 x 1 / 1160871 x 0.349 = 54.87 ug/L

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW80B-041417 | Lab Sample ID: 240-78169-4

Matrix: Water | Lab File ID: U1256601.D

Analysis Method: 8260C | Date Collected: 04/14/2017 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 20:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	1.2		1.0	0.25
75-35-4	1,1-Dichloroethene	17		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.34	J	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.8		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW80B-041417 | Lab Sample ID: 240-78169-4

Matrix: Water | Lab File ID: U1256601.D

Analysis Method: 8260C | Date Collected: 04/14/2017 11:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/19/2017 20:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	55	✓	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	94		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		61-138

TestAmerica Canton

Target Compound Quantitation Report

Sample Calculation - Page 4

Data File: \\ChromNA\Canton\ChromData\A3UX12\20170419-64207.b\U1256601.D
Lims ID: 240-78169-A-4
Client ID: MRC-MW80B-041417
Sample Type: Client
Inject. Date: 19-Apr-2017 20:12:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0064207-010
Operator ID: 001904 Instrument ID: A3UX12

Method: \\ChromNA\Canton\ChromData\A3UX12\20170419-64207.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 19-Apr-2017 20:39:21 Calib Date: 30-Mar-2017 16:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20170330-63595.b\U1256170.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK005

First Level Reviewer: laveyt Date: 19-Apr-2017 20:40:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.169	5.169	0.000	100	1160871	20.0	
* 2 Chlorobenzene-d5	117	7.819	7.820	-0.001	84	924011	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.032	10.032	0.000	95	490261	20.0	
$ 4 Dibromofluoromethane (Surr	113	4.601	4.601	0.000	94	254406	15.5	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.885	4.885	0.000	88	293153	15.4	
$ 6 Toluene-d8 (Surr)	98	6.518	6.518	0.000	92	1136743	15.6	
$ 7 4-Bromofluorobenzene (Surr	95	8.920	8.920	0.000	95	416302	15.1	
9 Dichlorodifluoromethane	85		1.418				ND	
10 Chloromethane	50		1.548				ND	
11 Vinyl chloride	62		1.666				ND	
13 Bromomethane	94		1.950				ND	
14 Chloroethane	64		2.057				ND	
16 Trichlorofluoromethane	101		2.270				ND	
21 1,1-Dichloroethene	61	2.731	2.731	0.000	97	577425	16.9	
20 1,1,2-Trichloro-1,2,2-trif	101		2.743				ND	
22 Acetone	43	2.755	2.755	0.000	98	9229	0.7337	
24 Carbon disulfide	76		2.921				ND	
27 Methyl acetate	43		3.039				ND	
28 Methylene Chloride	49		3.169				ND	
32 trans-1,2-Dichloroethene	61		3.358				ND	
31 Methyl tert-butyl ether	73		3.358				ND	
34 1,1-Dichloroethane	63	3.713	3.713	0.000	98	38510	1.20	

Report Date: 19-Apr-2017 20:40:01 Chrom Revision: 2.2 18-Apr-2017 07:43:58

Data File: \\ChromNA\Canton\ChromData\A3UX12\20170419-64207.b\U1256601.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
40 cis-1,2-Dichloroethene	61	4.199	4.199	0.000	77	49346	1.77	
41 2-Butanone (MEK)	43		4.210				ND	
47 Chloroform	83		4.459				ND	
48 1,1,1-Trichloroethane	97		4.625				ND	
49 Cyclohexane	84		4.672				ND	
51 Carbon tetrachloride	117		4.767				ND	
53 Benzene	78	4.932	4.932	0.000	88	12947	0.1608	
54 1,2-Dichloroethane	62	4.944	4.944	0.000	70	7769	0.3425	
58 Trichloroethene	130	5.476	5.477	-0.001	96	1111583	54.9	
60 Methylcyclohexane	83		5.642				ND	
61 1,2-Dichloropropane	63		5.666				ND	
65 Dichlorobromomethane	83		5.891				ND	
68 cis-1,3-Dichloropropene	75		6.281				ND	
69 4-Methyl-2-pentanone (MIBK	43		6.411				ND	
70 Toluene	91		6.577				ND	
71 trans-1,3-Dichloropropene	75		6.766				ND	
74 1,1,2-Trichloroethane	97		6.932				ND	
75 Tetrachloroethene	166		7.062				ND	
77 2-Hexanone	43		7.145				ND	
79 Chlorodibromomethane	129		7.287				ND	
80 Ethylene Dibromide	107		7.393				ND	
82 Chlorobenzene	112		7.843				ND	
84 Ethylbenzene	106		7.938				ND	
85 m-Xylene & p-Xylene	106		8.044				ND	
86 o-Xylene	106		8.423				ND	
87 Styrene	104		8.435				ND	
88 Bromoform	173		8.612				ND	
89 Isopropylbenzene	105		8.766				ND	
91 1,1,2,2-Tetrachloroethane	83		9.050				ND	
103 1,3-Dichlorobenzene	146		9.973				ND	
105 1,4-Dichlorobenzene	146		10.056				ND	
109 1,2-Dichlorobenzene	146		10.423				ND	
110 1,2-Dibromo-3-Chloropropan	157		11.192				ND	
112 1,2,4-Trichlorobenzene	180		12.020				ND	
S 126 Xylenes, Total	106		16.030				ND	

Reagents:

vm100ss_stk_00025	Amount Added: 0.83	Units: uL	Run Reagent
vmDist_H2o_00090	Amount Added: 0.00	Units:	Run Reagent
vm100is_stk_00032	Amount Added: 1.00	Units: uL	Run Reagent

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0048 0.0087	0.0046	0.0074	0.0073	0.0083	Lin1	-0.070	0.0083							0.9960		0.9900
Benzene	1.3655 1.4239	1.3310	1.4028	1.3828	1.4152	Ave		1.3869			0.5000	2.5		20.0			
1,2-Dichloroethane	0.3799 0.4037	0.3568	0.4100	0.3873	0.4069	Ave		0.3908			0.1000	5.2		20.0			
n-Heptane	+++++ 0.1879	0.7476	0.2166	0.1987	0.1940	Lin1	0.5549	0.1767							0.9990		0.9900
Trichloroethene	0.3369 0.3552	0.3575	0.3489	0.3421	0.3532	Ave		0.3490			0.1500	2.3		20.0			
Methylcyclohexane	0.4044 0.4857	0.4143	0.4244	0.4604	0.4774	Ave		0.4444			0.1000	7.8		20.0			
1,2-Dichloropropane	0.3108 0.3459	0.3005	0.3509	0.3385	0.3477	Ave		0.3324			0.1000	6.4		20.0			
Dibromomethane	0.2333 0.2211	0.1946	0.2240	0.2228	0.2234	Ave		0.2199				6.0		20.0			
1,4-Dioxane	+++++ 0.0041	0.0019	0.0037	0.0032	0.0037	Lin1	-0.049	0.0039							0.9930		0.9900
Dichlorobromomethane	0.3381 0.3950	0.3299	0.3717	0.3674	0.3851	Ave		0.3645			0.1500	7.1		20.0			
2-Chloroethyl vinyl ether	0.1131 0.1401	0.0993	0.1215	0.1256	0.1330	Ave		0.1221				11.9		20.0			
cis-1,3-Dichloropropene	0.3667 0.5663	0.3833	0.5045	0.5069	0.5488	Ave		0.4794			0.1500	17.6		20.0			
4-Methyl-2-pentanone (MIBK)	0.2894 0.2768	0.2436	0.2688	0.2683	0.2778	Ave		0.2708			0.0500	5.7		20.0			
Toluene	2.0480 1.9258	1.7897	1.9470	1.8851	1.9530	Ave		1.9248			0.4000	4.4		20.0			
trans-1,3-Dichloropropene	0.3721 0.6229	0.4055	0.5396	0.5651	0.6185	Lin1	-0.171	0.6116			0.1000				0.9980		0.9900
Ethyl methacrylate	0.4494 0.5770	0.4203	0.5309	0.5432	0.5842	Ave		0.5175				13.1		20.0			
1,1,2-Trichloroethane	0.3870 0.3781	0.3892	0.3805	0.3799	0.3820	Ave		0.3828			0.1000	1.1		20.0			
Tetrachloroethene	0.4069 0.4429	0.3989	0.4345	0.4265	0.4538	Ave		0.4272			0.1500	4.9		20.0			
1,3-Dichloropropane	0.6108 0.7292	0.7360	0.7395	0.7235	0.7318	Ave		0.7118				7.0		20.0			
2-Hexanone	0.2236 0.2785	0.2173	0.2442	0.2563	0.2893	Ave		0.2515			0.0500	11.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

Method 522

1,4 Dioxane (GC/MS SIM) by Method 522

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Lab File ID: BFB Injection Date:

Instrument ID: BFB Injection Time:

Lab File ID: DFTPP Injection Date:

Instrument ID: DFTPP Injection Time:

Analysis Batch No.:

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-115982/4	Z24808_04.D	04/20/2017	17:21
	ICIS 200-115982/6	Z24808_06.D	04/20/2017	17:52
	IC 200-115982/7	Z24808_07.D	04/20/2017	18:08
	IC 200-115982/9	Z24808_09.D	04/20/2017	18:41
	ICV 200-115982/10	Z24808_10.D	04/20/2017	18:57
	CCVL 200-116110/3	Z24865_03.D	04/25/2017	15:42
	LLCS 200-116030/2-A	Z24865_06.D	04/25/2017	16:37
	MB 200-116030/1-A	Z24865_07.D	04/25/2017	16:53
	CCV 200-116110/17	Z24865_17.D	04/25/2017	19:33
MRC-MW27A-041717	240-78206-2	Z24865_20.D	04/25/2017	20:21
MRC-MW27A-041717 MS	240-78206-2 MS	Z24865_21.D	04/25/2017	20:37
MRC-MW27A-041717 MSD	240-78206-2 MSD	Z24865_22.D	04/25/2017	20:53
MRC-MW27B-041717	240-78206-3	Z24865_23.D	04/25/2017	21:09
MRC-MW27C-041717	240-78206-4	Z24865_24.D	04/25/2017	21:25
	CCV 200-116110/28	Z24865_28.D	04/25/2017	22:29
	CCVL 200-116119/1	Z24866_01.D	04/26/2017	07:59
	LCS 200-116072/2-A	Z24866_02.D	04/26/2017	08:24
	MB 200-116072/1-A	Z24866_03.D	04/26/2017	08:40
MRC-MW13A-041217	240-78035-3	Z24866_06.D	04/26/2017	09:28
MRC-MW13A-041217 MS	240-78035-3 MS	Z24866_07.D	04/26/2017	09:44
MRC-MW13A-041217 MSD	240-78035-3 MSD	Z24866_08.D	04/26/2017	10:00
MRC-MW12C-041217	240-78035-4	Z24866_09.D	04/26/2017	10:16
MRC-MW63A-041217	240-78035-5	Z24866_10.D	04/26/2017	10:32
MRC-MW80A-041417	240-78169-3	Z24866_11.D	04/26/2017	10:48
MRC-MW80B-041417	240-78169-4	Z24866_12.D	04/26/2017	11:04
MRC-MW22B-041417	240-78169-5	Z24866_13.D	04/26/2017	11:21
	CCV 200-116119/14	Z24866_14.D	04/26/2017	11:37
MRC-MW70A-041417	240-78169-8	Z24866_15.D	04/26/2017	11:53
MRC-MW70B-041417	240-78169-9	Z24866_16.D	04/26/2017	12:09
MRC-MW12B-041217	240-78035-2	Z24866_17.D	04/26/2017	12:26
MRC-MW10A-041417	240-78169-10	Z24866_18.D	04/26/2017	12:42
MRC-MW08A-041417	240-78169-11	Z24866_19.D	04/26/2017	12:58
MRC-DUP09-041417	240-78169-13	Z24866_20.D	04/26/2017	13:14

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Lab File ID: BFB Injection Date:

Instrument ID: BFB Injection Time:

Lab File ID: DFTPP Injection Date:

Instrument ID: DFTPP Injection Time:

Analysis Batch No.:

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 200-116119/25	Z24866_25.D	04/26/2017	14:35

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-78035-1 Analy Batch No.: 115982

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2017 17:05 Calibration End Date: 04/20/2017 18:41 Calibration ID: 37126

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-115982/9	Z24808_09.D
Level 2	IC 200-115982/8	Z24808_08.D
Level 3	IC 200-115982/7	Z24808_07.D
Level 4	ICIS 200-115982/6	Z24808_06.D
Level 5	IC 200-115982/5	Z24808_05.D
Level 6	IC 200-115982/4	Z24808_04.D
Level 7	IC 200-115982/11	Z24808_11.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.9371 0.8322	0.9125 0.8513	0.8873	0.8494	0.8061	Ave		0.8680			0.0500	5.3		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.6043 0.6072	0.5956 0.6322	0.6217	0.6120	0.5970	Ave		0.6100				2.2		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-78035-1 Analy Batch No.: 115982

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2017 17:05 Calibration End Date: 04/20/2017 18:41 Calibration ID: 37126

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-115982/9	Z24808_09.D
Level 2	IC 200-115982/8	Z24808_08.D
Level 3	IC 200-115982/7	Z24808_07.D
Level 4	ICIS 200-115982/6	Z24808_06.D
Level 5	IC 200-115982/5	Z24808_05.D
Level 6	IC 200-115982/4	Z24808_04.D
Level 7	IC 200-115982/11	Z24808_11.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	3250 120608	6527 248676	15645	31361	59327	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	104786 110003	106504 115418	109626	112970	109839	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 200-115982/10 Calibration Date: 04/20/2017 18:57

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24808_10.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.7986	0.0500	184	200	-8.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVL 200-116110/3 Calibration Date: 04/25/2017 15:42

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24865_03.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	1.001	0.0500	11.5	10.0	15.3	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6904	0.0500	566	500	13.2	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 200-116110/17 Calibration Date: 04/25/2017 19:33

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24865_17.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9904	0.0500	114	100	14.1	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.7015	0.0500	575	500	15.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 200-116110/28 Calibration Date: 04/25/2017 22:29

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24865_28.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9809	0.0500	904	800	13.0	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.7221	0.0500	592	500	18.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVL 200-116119/1 Calibration Date: 04/26/2017 07:59

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24866_01.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	1.048	0.0500	12.1	10.0	20.7	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.7159	0.0500	587	500	17.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 200-116119/14 Calibration Date: 04/26/2017 11:37

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24866_14.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	1.068	0.0500	123	100	23.0	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.7567	0.0500	620	500	24.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 200-116119/25 Calibration Date: 04/26/2017 14:35

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24866_25.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9748	0.0500	898	800	12.3	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.7219	0.0500	592	500	18.3	30.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Lab File ID: Z24865_07.D Lab Sample ID: MB 200-116030/1-A

Matrix: Water Date Extracted: 04/22/2017 13:30

Instrument ID: CHZ.i Date Analyzed: 04/25/2017 16:53

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LLCS 200-116030/2-A	Z24865_06.D	04/25/2017 16:37
MRC-MW27A-041717	240-78206-2	Z24865_20.D	04/25/2017 20:21
MRC-MW27A-041717 MS	240-78206-2 MS	Z24865_21.D	04/25/2017 20:37
MRC-MW27A-041717 MSD	240-78206-2 MSD	Z24865_22.D	04/25/2017 20:53
MRC-MW27B-041717	240-78206-3	Z24865_23.D	04/25/2017 21:09
MRC-MW27C-041717	240-78206-4	Z24865_24.D	04/25/2017 21:25

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-116030/1-A

Matrix: Water | Lab File ID: Z24865_07.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 04/22/2017 13:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/25/2017 16:53

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116110 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	106		46-130

FORM III
GC/MS SEMI VOA LOW LEVEL CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24865_06.D

Lab ID: LLCS 200-116030/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LLCS CONCENTRATION (ug/L)	LLCS % REC	QC LIMITS REC	#
1,4-Dioxane	0.200	0.275	137	50-150	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24865_21.D

Lab ID: 240-78206-2 MS Client ID: MRC-MW27A-041717 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	0.78	3.17	120	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24865_22.D

Lab ID: 240-78206-2 MSD Client ID: MRC-MW27A-041717 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	2.00	3.13	118	1	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Lab File ID: Z24866_03.D Lab Sample ID: MB 200-116072/1-A

Matrix: Water Date Extracted: 04/24/2017 18:00

Instrument ID: CHZ.i Date Analyzed: 04/26/2017 08:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-116072/2-A	Z24866_02.D	04/26/2017 08:24
MRC-MW13A-041217	240-78035-3	Z24866_06.D	04/26/2017 09:28
MRC-MW13A-041217 MS	240-78035-3 MS	Z24866_07.D	04/26/2017 09:44
MRC-MW13A-041217 MSD	240-78035-3 MSD	Z24866_08.D	04/26/2017 10:00
MRC-MW12C-041217	240-78035-4	Z24866_09.D	04/26/2017 10:16
MRC-MW63A-041217	240-78035-5	Z24866_10.D	04/26/2017 10:32
MRC-MW80A-041417	240-78169-3	Z24866_11.D	04/26/2017 10:48
MRC-MW80B-041417	240-78169-4	Z24866_12.D	04/26/2017 11:04
MRC-MW22B-041417	240-78169-5	Z24866_13.D	04/26/2017 11:21
MRC-MW70A-041417	240-78169-8	Z24866_15.D	04/26/2017 11:53
MRC-MW70B-041417	240-78169-9	Z24866_16.D	04/26/2017 12:09
MRC-MW12B-041217	240-78035-2	Z24866_17.D	04/26/2017 12:26
MRC-MW10A-041417	240-78169-10	Z24866_18.D	04/26/2017 12:42
MRC-MW08A-041417	240-78169-11	Z24866_19.D	04/26/2017 12:58
MRC-DUP09-041417	240-78169-13	Z24866_20.D	04/26/2017 13:14

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-116072/1-A

Matrix: Water | Lab File ID: Z24866_03.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00

Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 08:40

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	93		46-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24866_02.D

Lab ID: LCS 200-116072/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	1.87	94	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24866_07.D

Lab ID: 240-78035-3 MS Client ID: MRC-MW13A-041217 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	3.1	4.23	55	70-130	F1

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24866_08.D

Lab ID: 240-78035-3 MSD Client ID: MRC-MW13A-041217 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	2.00	4.24	55	0	30	70-130	F1

Column to be used to flag recovery and RPD values

FORM III 522

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW12B-041217	240-78035-2	88
MRC-MW13A-041217	240-78035-3	99
MRC-MW12C-041217	240-78035-4	76
MRC-MW63A-041217	240-78035-5	85
MRC-MW80A-041417	240-78169-3	80
MRC-MW80B-041417	240-78169-4	88
MRC-MW22B-041417	240-78169-5	84
MRC-MW70A-041417	240-78169-8	94
MRC-MW70B-041417	240-78169-9	80
MRC-MW10A-041417	240-78169-10	91
MRC-MW08A-041417	240-78169-11	82
MRC-DUP09-041417	240-78169-13	72
MRC-MW27A-041717	240-78206-2	99
MRC-MW27B-041717	240-78206-3	81
MRC-MW27C-041717	240-78206-4	84
	MB 200-116030/1-A	106
	MB 200-116072/1-A	93
	LCS 200-116072/2-A	82
	LLCS 200-116030/2-A	101
MRC-MW13A-041217 MS	240-78035-3 MS	79
MRC-MW27A-041717 MS	240-78206-2 MS	105
MRC-MW13A-041217 MSD	240-78035-3 MSD	83
MRC-MW27A-041717 MSD	240-78206-2 MSD	104

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Sample No.: ICIS 200-115982/6 Date Analyzed: 04/20/2017 17:52

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24808_06.D Heated Purge: (Y/N) N

Calibration ID: 37126

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		184600	3.45				
UPPER LIMIT		276900	3.95				
LOWER LIMIT		92300	2.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-115982/10		164476	3.44				
CCVL 200-116110/3		161286	3.45				
LLCS 200-116030/2-A		141649	3.44				
MB 200-116030/1-A		141587	3.43				
CCV 200-116110/17		159130	3.44				
240-78206-2	MRC-MW27A-041717	151179	3.43				
240-78206-2 MS	MRC-MW27A-041717 MS	163048	3.45				
240-78206-2 MSD	MRC-MW27A-041717 MSD	158352	3.44				
240-78206-3	MRC-MW27B-041717	165776	3.44				
240-78206-4	MRC-MW27C-041717	167867	3.44				
CCV 200-116110/28		153615	3.44				
CCVL 200-116119/1		163075	3.45				
LCS 200-116072/2-A		149220	3.44				
MB 200-116072/1-A		151271	3.45				
240-78035-3	MRC-MW13A-041217	150248	3.44				
240-78035-3 MS	MRC-MW13A-041217 MS	155073	3.44				
240-78035-3 MSD	MRC-MW13A-041217 MSD	164306	3.45				
240-78035-4	MRC-MW12C-041217	169141	3.43				
240-78035-5	MRC-MW63A-041217	151957	3.44				
240-78169-3	MRC-MW80A-041417	155872	3.45				
240-78169-4	MRC-MW80B-041417	162460	3.45				
240-78169-5	MRC-MW22B-041417	156947	3.45				
CCV 200-116119/14		149613	3.44				
240-78169-8	MRC-MW70A-041417	188898	3.46				
240-78169-9	MRC-MW70B-041417	169966	3.44				
240-78035-2	MRC-MW12B-041217	144184	3.44				
240-78169-10	MRC-MW10A-041417	162117	3.45				
240-78169-11	MRC-MW08A-041417	177884	3.45				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-78035-1

SDG No.:

Sample No.: ICIS 200-115982/6 Date Analyzed: 04/20/2017 17:52

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24808_06.D Heated Purge: (Y/N) N

Calibration ID: 37126

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		184600	3.45				
UPPER LIMIT		276900	3.95				
LOWER LIMIT		92300	2.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-78169-13	MRC-DUP09-041417	175565	3.46				
CCV 200-116119/25		167890	3.45				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

SAMPLE CALCULATION - SVOC	WATER	
SAMPLE IDENTIFICATION	MRC-MW80B-041417	
COMPOUND	1,4-Dioxane	
COMPOUND AREA	195517	
INTERNAL STANDARD AMOUNT (ng)	0.5	
INTERNAL STANDARD AREA	162460	
AVERAGE RRF	0.868	
195517 x 0.5 x 1 / 162460 x 0.868	0.6932	ng/ul
DILUTION FACTOR	1	
SAMPLE VOLUME (ml)	100	
VOLUME EXTRACT (ml)	2	
µl in 1ml	1000	
0.693247568632279 x 1 x 1000 x 2 / (100)	14	ug/L

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78035-1
SDG No.:
Client Sample ID: MRC-MW80B-041417 | Lab Sample ID: 240-78169-4
Matrix: Water | Lab File ID: Z24866_12.D
Analysis Method: 522 | Date Collected: 04/14/2017 11:35
Extract. Method: 3535A | Date Extracted: 04/24/2017 18:00
Sample wt/vol: 100(mL) | Date Analyzed: 04/26/2017 11:04
Con. Extract Vol.: 2(mL) | Dilution Factor: 1
Injection Volume: 2(uL) | Level: (low/med) Low
% Moisture: | GPC Cleanup:(Y/N) N
Analysis Batch No.: 116119 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	14		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	88		46-130

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHZ.i\20170426-24866.b\Z24866_12.D
Lims ID: 240-78169-D-4-A
Client ID: MRC-MW80B-041417
Sample Type: Client
Inject. Date: 26-Apr-2017 11:04:30 ALS Bottle#: 13 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 200-0024866-012
Operator ID: tpb Instrument ID: CHZ.i

Method: \\ChromNA\Burlington\ChromData\CHZ.i\20170426-24866.b\522_MOD_Z.m
Limit Group: SV_522_Limits
Last Update: 26-Apr-2017 12:06:10 Calib Date: 20-Apr-2017 18:41:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\CHZ.i\20170420-24808.b\Z24808_09.D

Column 1 : Rxi-5ms (0.25 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: bourdeaut Date: 26-Apr-2017 12:04:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	Flags
* 1 Tetrahydrofuran-d8	46	3.448	3.448	0.000	97	162460	0.5000	
$ 2 1,4-Dioxane-d8 (Surr)	64	4.335	4.335	0.000	98	17419	0.0879	
3 1,4-Dioxane	88	4.371	4.377	-0.006	90	195517	0.6933	
$ 4 BFB								

Reagents:

SV522ISi_00033 Amount Added: 4.00 Units: uL Run Reagent

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-78035-1 Analy Batch No.: 115982

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2017 17:05 Calibration End Date: 04/20/2017 18:41 Calibration ID: 37126

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-115982/9	Z24808_09.D
Level 2	IC 200-115982/8	Z24808_08.D
Level 3	IC 200-115982/7	Z24808_07.D
Level 4	ICIS 200-115982/6	Z24808_06.D
Level 5	IC 200-115982/5	Z24808_05.D
Level 6	IC 200-115982/4	Z24808_04.D
Level 7	IC 200-115982/11	Z24808_11.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.9371 0.8322	0.9125 0.8513	0.8873	0.8494	0.8061	Ave		0.8680			0.0500	5.3		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.6043 0.6072	0.5956 0.6322	0.6217	0.6120	0.5970	Ave		0.6100				2.2		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

Method RSK-175

Dissolved Gases (GC) by Method RSK_175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: STD3 240-251578/5 Date Analyzed: 10/15/2016 15:31

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0101505.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
INITIAL CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-251578/5 ICRT		10/15/2016 15:31	RSK0101505.D	3.34		
ICV 240-251578/9		10/15/2016 16:39	RSK0101509.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: CCVRT 240-276154/3 Date Analyzed: 04/25/2017 15:46

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0425003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-276154/3		04/25/2017 15:46	RSK0425003.D	3.34		
MB 240-276154/4		04/25/2017 16:03	RSK0425004.D	3.34		
LCS 240-276154/5		04/25/2017 16:20	RSK0425005.D	3.34		
240-78172-M-3 MS		04/25/2017 17:46	RSK0425010.D	3.34		
240-78172-O-3 MSD		04/25/2017 18:04	RSK0425011.D	3.34		
CCV 240-276154/14		04/25/2017 18:55	RSK0425014.D	3.34		
240-78035-2	MRC-MW12B-041217	04/25/2017 20:21	RSK0425019.D	3.34		
CCV 240-276154/20		04/25/2017 20:38	RSK0425020.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: CCVRT 240-276683/3 Date Analyzed: 04/28/2017 12:33

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0428003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-276683/3		04/28/2017 12:33	RSK0428003.D	3.34		
MB 240-276683/4		04/28/2017 12:51	RSK0428004.D	3.34		
LCS 240-276683/5		04/28/2017 13:08	RSK0428005.D	3.34		
240-78206-2	MRC-MW27A-041717	04/28/2017 13:25	RSK0428006.D	3.34		
240-78206-3	MRC-MW27B-041717	04/28/2017 13:42	RSK0428007.D	3.34		
240-78330-D-1 MS		04/28/2017 14:17	RSK0428009.D	3.34		
240-78330-D-1 MSD		04/28/2017 14:34	RSK0428010.D	3.34		
CCV 240-276683/14		04/28/2017 15:42	RSK0428014.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Sample No.: CCVRT 240-277025/3 Date Analyzed: 05/01/2017 22:54

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0501031.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-277025/3		05/01/2017 22:54	RSK0501031.D	3.34		
LCS 240-277025/5		05/01/2017 23:28	RSK0501033.D	3.34		
240-78206-5	MRC-MW24A-041717	05/01/2017 23:45	RSK0501034.D	3.34		
CCV 240-277025/14		05/02/2017 02:02	RSK0501042.D	3.34		
CCV 240-277025/27		05/02/2017 05:44	RSK0501055.D	3.34		
MB 240-277025/28		05/02/2017 08:29	RSK0501056.D	3.34		
CCV 240-277025/29		05/02/2017 08:46	RSK0501057.D	3.35		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Methane	1.181	1.182	1.182	1.183	1.180	1.182					1.132 - 1.232	1.182
Ethylene	1.877	1.879	1.879	1.879	1.877	1.872					1.822 - 1.922	1.877
Acetylene	1.991	1.992	1.992	1.993	1.990	1.988					1.938 - 2.038	1.991
Ethane	2.201	2.199	2.199	2.203	2.197	2.192					1.992 - 2.392	2.199
Propane	4.544	4.546	4.546	4.546	4.537	4.522					4.472 - 4.572	4.540
1,1,1-Trifluoroethane	3.344	3.342	3.339	3.336	3.327						3.239 - 3.439	3.338

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Methane	17282 15031	14572 14891	15021	15273	Ave		15344.8970				6.4		30.0			
Ethylene	13272 13787	13164 13601	13786	13941	Ave		13591.7814				2.3		30.0			
Acetylene	6429.5 6415.6	5892.3 6088.3	6401.9	6607.6	Ave		6305.86557				4.2		30.0			
Ethane	13684 14544	13730 14408	14353	14588	Ave		14217.7545				2.9		30.0			
Propane	13814 15013	13864 14908	14731	14670	Ave		14499.9021				3.6		30.0			
1,1,1-Trifluoroethane	7519.7 7756.9	8027.5	7602.5	8141.8	Ave		7809.65873				3.4		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methane	Ave	4466 29592381	28968	149298	1518050	5973962	0.258 1987	1.99	9.94	99.4	397
Ethylene	Ave	6023 47472057	45954	240631	2433289	9624127	0.454 3490	3.49	17.5	175	698
Acetylene	Ave	2700 19661432	19034	103400	1067223	4143730	0.420 3229	3.23	16.2	162	646
Ethane	Ave	6652 53866713	51341	268353	2727568	10875652	0.486 3739	3.74	18.7	187	748
Propane	Ave	9839 81662046	75958	403531	4018573	16448361	0.712 5478	5.48	27.4	274	1096
1,1,1-Trifluoroethane	Ave	1961483	4187852	19830722	42474965	80933618	261	522	2608	5217	10434

Curve Type Legend:
Ave = Average

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 240-251578/9 Calibration Date: 10/15/2016 16:39

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0101509.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	12457		161	199	-18.8	30.0
Ethylene	Ave	13592	11508		296	349	-15.3	30.0
Acetylene	Ave	6306	5081		260	323	-19.4	30.0
Ethane	Ave	14218	12173		320	374	-14.4	30.0
Propane	Ave	14500	12390		467	546	-14.6	30.0
1,1,1-Trifluoroethane	Ave	7810	6762		2640	3050	-13.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICV 240-251578/9 Calibration Date: 10/15/2016 16:39

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0101509.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.88	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.20	1.99	2.39
Propane	4.54	4.47	4.57
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVRT 240-276154/3 Calibration Date: 04/25/2017 15:46

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0425003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14918		193	199	-2.8	30.0
Ethylene	Ave	13592	12900		331	349	-5.1	30.0
Acetylene	Ave	6306	5384		276	323	-14.6	30.0
Ethane	Ave	14218	13546		356	374	-4.7	30.0
Propane	Ave	14500	12697		480	548	-12.4	30.0
1,1,1-Trifluoroethane	Ave	7810	6104		2390	3050	-21.8	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVRT 240-276154/3 Calibration Date: 04/25/2017 15:46

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0425003.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.87	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-276154/14 Calibration Date: 04/25/2017 18:55

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0425014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14437		187	199	-5.9	30.0
Ethylene	Ave	13592	11951		307	349	-12.1	30.0
Acetylene	Ave	6306	5044		258	323	-20.0	30.0
Ethane	Ave	14218	12823		337	374	-9.8	30.0
Propane	Ave	14500	11647		440	548	-19.7	30.0
1,1,1-Trifluoroethane	Ave	7810	5800		2270	3050	-25.7	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-276154/14 Calibration Date: 04/25/2017 18:55

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0425014.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-276154/20 Calibration Date: 04/25/2017 20:38

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0425020.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14359		186	199	-6.4	30.0
Ethylene	Ave	13592	11543		296	349	-15.1	30.0
Acetylene	Ave	6306	5049		259	323	-19.9	30.0
Ethane	Ave	14218	12509		329	374	-12.0	30.0
Propane	Ave	14500	11159		422	548	-23.0	30.0
1,1,1-Trifluoroethane	Ave	7810	5529		2160	3050	-29.2	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-276154/20 Calibration Date: 04/25/2017 20:38

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0425020.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.55	4.50	4.60
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVRT 240-276683/3 Calibration Date: 04/28/2017 12:33

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0428003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15552		201	199	1.3	30.0
Ethylene	Ave	13592	13855		356	349	1.9	30.0
Acetylene	Ave	6306	7074		362	323	12.2	30.0
Ethane	Ave	14218	14135		372	374	-0.6	30.0
Propane	Ave	14500	13085		494	548	-9.8	30.0
1,1,1-Trifluoroethane	Ave	7810	6843		2670	3050	-12.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVRT 240-276683/3 Calibration Date: 04/28/2017 12:33

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0428003.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-276683/14 Calibration Date: 04/28/2017 15:42

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0428014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14318		185	199	-6.7	30.0
Ethylene	Ave	13592	11897		306	349	-12.5	30.0
Acetylene	Ave	6306	5087		261	323	-19.3	30.0
Ethane	Ave	14218	12728		335	374	-10.5	30.0
Propane	Ave	14500	11526		435	548	-20.5	30.0
1,1,1-Trifluoroethane	Ave	7810	5880		2300	3050	-24.7	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-276683/14 Calibration Date: 04/28/2017 15:42

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0428014.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVRT 240-277025/3 Calibration Date: 05/01/2017 22:54

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501031.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15028		195	199	-2.1	30.0
Ethylene	Ave	13592	12922		332	349	-4.9	30.0
Acetylene	Ave	6306	5839		299	323	-7.4	30.0
Ethane	Ave	14218	13590		357	374	-4.4	30.0
Propane	Ave	14500	12603		476	548	-13.1	30.0
1,1,1-Trifluoroethane	Ave	7810	6428		2510	3050	-17.7	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCVRT 240-277025/3 Calibration Date: 05/01/2017 22:54

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501031.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.55	4.50	4.60
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-277025/14 Calibration Date: 05/02/2017 02:02

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501042.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14193		184	199	-7.5	30.0
Ethylene	Ave	13592	11857		304	349	-12.8	30.0
Acetylene	Ave	6306	5230		268	323	-17.1	30.0
Ethane	Ave	14218	12577		331	374	-11.5	30.0
Propane	Ave	14500	11398		431	548	-21.4	30.0
1,1,1-Trifluoroethane	Ave	7810	5870		2290	3050	-24.8	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-277025/14 Calibration Date: 05/02/2017 02:02

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501042.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.55	4.50	4.60
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-277025/27 Calibration Date: 05/02/2017 05:44

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501055.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14253		185	199	-7.1	30.0
Ethylene	Ave	13592	11629		299	349	-14.4	30.0
Acetylene	Ave	6306	4949		253	323	-21.5	30.0
Ethane	Ave	14218	12646		333	374	-11.1	30.0
Propane	Ave	14500	11504		435	548	-20.7	30.0
1,1,1-Trifluoroethane	Ave	7810	5844		2280	3050	-25.2	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-277025/27 Calibration Date: 05/02/2017 05:44

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501055.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethylene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.55	4.50	4.60
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-277025/29 Calibration Date: 05/02/2017 08:46

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501057.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15129		196	199	-1.4	30.0
Ethylene	Ave	13592	13821		355	349	1.7	30.0
Acetylene	Ave	6306	8390		430	323	33.1*	30.0
Ethane	Ave	14218	13865		365	374	-2.5	30.0
Propane	Ave	14500	12818		484	548	-11.6	30.0
1,1,1-Trifluoroethane	Ave	7810	6958		2720	3050	-10.9	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: CCV 240-277025/29 Calibration Date: 05/02/2017 08:46

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501057.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.19	1.14	1.24
Ethylene	1.88	1.83	1.93
Acetylene	2.00	1.95	2.05
Ethane	2.20	2.00	2.40
Propane	4.55	4.50	4.60
1,1,1-Trifluoroethane	3.35	3.25	3.45

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: MB 240-276154/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0425004.D Lab File ID:(2)

Date Analyzed:(1) 04/25/2017 16:03 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-276154/5	04/25/2017 16:20	
	240-78172-M-3 MS	04/25/2017 17:46	
	240-78172-O-3 MSD	04/25/2017 18:04	
MRC-MW12B-041217	240-78035-2	04/25/2017 20:21	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-276154/4

Matrix: Water Lab File ID: RSK0425004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 33(mL) Date Analyzed: 04/25/2017 16:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 276154 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.080	U	0.50	0.080
74-84-0	Ethane	0.14	U	0.50	0.14
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	84		76-121

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0425005.D

Lab ID: LCS 240-276154/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	199	194	98	80-130	
Ethane	374	357	95	76-131	
Ethylene	349	337	97	79-132	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0425010.D

Lab ID: 240-78172-M-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Methane	199	9.7	193	92	48-159	
Ethane	374	0.44 J	335	90	65-126	
Ethylene	349	1.4	314	90	60-135	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0425011.D

Lab ID: 240-78172-O-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methane	199	193	92	0	23	48-159	
Ethane	374	341	91	2	11	65-126	
Ethylene	349	321	92	2	10	60-135	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: MB 240-276683/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0428004.D Lab File ID:(2)

Date Analyzed:(1) 04/28/2017 12:51 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-276683/5	04/28/2017 13:08	
MRC-MW27A-041717	240-78206-2	04/28/2017 13:25	
MRC-MW27B-041717	240-78206-3	04/28/2017 13:42	
	240-78330-D-1 MS	04/28/2017 14:17	
	240-78330-D-1 MSD	04/28/2017 14:34	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-276683/4

Matrix: Water Lab File ID: RSK0428004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 33(mL) Date Analyzed: 04/28/2017 12:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 276683 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.080	U	0.50	0.080
74-84-0	Ethane	0.14	U	0.50	0.14
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	88		76-121

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0428005.D

Lab ID: LCS 240-276683/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	199	195	98	80-130	
Ethane	374	359	96	76-131	
Ethylene	349	338	97	79-132	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0428009.D

Lab ID: 240-78330-D-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Methane	994	6400	7920	153	48-159	4
Ethane	1870	1.5 J	1740	93	65-126	
Ethylene	1750	0.65 U	1650	95	60-135	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0428010.D

Lab ID: 240-78330-D-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methane	994	8720	234	10	23	48-159	4
Ethane	1870	1730	92	1	11	65-126	
Ethylene	1750	1630	94	1	10	60-135	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: MB 240-277025/28

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0501056.D Lab File ID:(2)

Date Analyzed:(1) 05/02/2017 08:29 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-277025/5	05/01/2017 23:28	
MRC-MW24A-041717	240-78206-5	05/01/2017 23:45	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-277025/28

Matrix: Water Lab File ID: RSK0501056.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 33(mL) Date Analyzed: 05/02/2017 08:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 277025 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.080	U	0.50	0.080
74-84-0	Ethane	0.14	U	0.50	0.14
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	87		76-121

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0501033.D

Lab ID: LCS 240-277025/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	199	188	94	80-130	
Ethane	374	343	92	76-131	
Ethylene	349	319	92	79-132	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-PLOT/Q ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TFE1 #
MRC-MW12B-041217	240-78035-2	79
MRC-MW27A-041717	240-78206-2	91
MRC-MW27B-041717	240-78206-3	90
MRC-MW24A-041717	240-78206-5	84
	MB 240-276154/4	84
	MB 240-276683/4	88
	MB 240-277025/28	87
	LCS 240-276154/5	83
	LCS 240-276683/5	84
	LCS 240-277025/5	81
	240-78172-M-3 MS	79
	240-78330-D-1 MS	81
	240-78172-O-3 MSD	80
	240-78330-D-1 MSD	80

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	76-121

Column to be used to flag recovery values

FORM II RSK-175

SAMPLE CALCULATION - DISSOLVED GASES	WATER
SAMPLE IDENTIFICATION	MRC-MW27A-041717
COMPOUND	Methane
COMPOUND AREA	11451257
AVERAGE RRF	15344.897
11451257 x 1 / 15344.897	746.3 ug/L

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Client Sample ID: MRC-MW27A-041717 | Lab Sample ID: 240-78206-2

Matrix: Water | Lab File ID: RSK0428006.D

Analysis Method: RSK-175 | Date Collected: 04/17/2017 08:36

Sample wt/vol: 33(mL) | Date Analyzed: 04/28/2017 13:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	750		0.50	0.080
74-84-0	Ethane	4.7		0.50	0.14
74-85-1	Ethylene	1.8		0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	91		76-121

Sample Calculation - Page 3

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\ZPID\20170428-64484.b\RSK0428006.D
Lims ID: 240-78206-D-2
Client ID: MRC-MW27A-041717
Sample Type: Client
Inject. Date: 28-Apr-2017 13:25:29 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 240-0064484-006
Operator ID: Instrument ID: ZPID

Method: \\ChromNA\Canton\ChromData\ZPID\20170428-64484.b\RSK175.m
Limit Group: GCV RSK 175 ICAL
Last Update: 29-Apr-2017 10:06:45 Calib Date: 15-Oct-2016 16:22:19
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\ZPID\20161015-59048.b\RSK0101508.D

Column 1 : Det: GC FID1A
Process Host: XAWRK010

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1	Methane					
	1.179	1.183	-0.004	11451257	746.3	
2	Ethylene					
	1.875	1.880	-0.005	24093	1.77	
4	Ethane					
	2.199	2.200	-0.001	66907	4.71	
$ 5	1,1,1-Trifluoroethane					
	3.339	3.340	-0.001	24176889	3095.8	

Reagents:

SARSKSURR_00010 Amount Added: 10.00 Units: mL Run Reagent

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78035-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Methane	17282 15031	14572 14891	15021	15273	Ave		15344.8970				6.4		30.0			
Ethylene	13272 13787	13164 13601	13786	13941	Ave		13591.7814				2.3		30.0			
Acetylene	6429.5 6415.6	5892.3 6088.3	6401.9	6607.6	Ave		6305.86557				4.2		30.0			
Ethane	13684 14544	13730 14408	14353	14588	Ave		14217.7545				2.9		30.0			
Propane	13814 15013	13864 14908	14731	14670	Ave		14499.9021				3.6		30.0			
1,1,1-Trifluoroethane	7519.7 7756.9	8027.5	7602.5	8141.8	Ave		7809.65873				3.4		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG No.:

Project: MRC 2017 GW

Client Sample ID	Lab Sample ID
MRC-MW12B-041217	240-78035-2
MRC-MW12C-041217	240-78035-4
MRC-MW70A-041417	240-78169-8
MRC-MW70B-041417	240-78169-9
MRC-MW27A-041717	240-78206-2
MRC-MW27B-041717	240-78206-3
MRC-MW24A-041717	240-78206-5

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00095

Analyte	ICV 240-274969/4 04/17/2017 08:55				CCV 240-274969/57 04/17/2017 13:31				CCV 240-274969/69 04/17/2017 14:24			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24400		25000	98	50200		50000	100	50400		50000	101
Magnesium	25500		25000	102	50000		50000	100	50000		50000	100
Potassium	25200		25000	101	51200		50000	102	51300		50000	103
SiO2, Silica	6570		6420	102	11100		10700	104	11200		10700	105
Sodium	25300		25000	101	53300		50000	107	53300		50000	107

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00095

Analyte	CCV 240-274969/81 04/17/2017 15:16											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	50300		50000	101								
Magnesium	50000		50000	100								
Potassium	51800		50000	104								
SiO2, Silica	11100		10700	104								
Sodium	53900		50000	108								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTTRCRIC_00046 Concentration Units: ug/L

CCV Source: MTTRCRIC_00046

Analyte	ICVL 240-274969/6 04/17/2017 09:04 NA				CCVL 240-274969/86 04/17/2017 15:38 NA							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5070		5000	101	5050		5000	101				
Magnesium	5080		5000	102	5090		5000	102				
Potassium	4930	J	5000	99	4920	J	5000	98				
SiO2, Silica	944	J	1070	88	943	J	1070	88				
Sodium	4910	J	5000	98	4680	J	5000	94				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00095

Analyte	ICV 240-275672/4 04/20/2017 09:12				CCV 240-275672/18 04/20/2017 10:12				CCV 240-275672/30 04/20/2017 11:16			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	23600		25000	95	49100		50000	98	48800		50000	98
Iron	12400		12500	99	24800		25000	99	24800		25000	99
Magnesium	24800		25000	99	49300		50000	99	49100		50000	98
Manganese	1500		1500	100	1970		2000	98	1960		2000	98
Potassium	24200		25000	97	48100		50000	96	48000		50000	96
SiO2, Silica	6230		6420	97	10500		10700	98	10500		10700	98
Sodium	24200		25000	97	48600		50000	97	48600		50000	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00095

Analyte	CCV 240-275672/42 04/20/2017 12:09											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	49400		50000	99								
Iron	25100		25000	100								
Magnesium	49900		50000	100								
Manganese	1980		2000	99								
Potassium	48400		50000	97								
SiO2, Silica	10500		10700	98								
Sodium	48800		50000	98								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTTRCRIC_00046 Concentration Units: ug/L

CCV Source: MTTRCRIC_00046

Analyte	ICVL 240-275672/6 04/20/2017 09:20				CCVL 240-275672/68 04/20/2017 14:01							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	4890	J	5000	98	4950	J	5000	99				
Iron	205		200	102	208		200	104				
Magnesium	5090		5000	102	5220		5000	104				
Manganese	15.1		15.0	101	15.2		15.0	101				
Potassium	4810	J	5000	96	4810	J	5000	96				
SiO2, Silica	1050	J	1070	98	1060	J	1070	99				
Sodium	4820	J	5000	96	4850	J	5000	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00096

Analyte	ICV 240-275816/4 04/21/2017 11:22				CCV 240-275816/54 04/21/2017 15:09				CCV 240-275816/62 04/21/2017 15:44			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Manganese	1500		1500	100	2010		2000	101	2000		2000	100
Calcium	24200		25000	97	50200		50000	100	50400		50000	101
Iron	12700		12500	102	25100		25000	100	25200		25000	101
Magnesium	25300		25000	101	49800		50000	100	50400		50000	101
Potassium	24600		25000	98	49800		50000	100	49500		50000	99
SiO2, Silica	6350		6420	99	10800		10700	101	10800		10700	101
Sodium	24800		25000	99	49200		50000	98	49600		50000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTTRCRIC_00046 Concentration Units: ug/L

CCV Source: MTTRCRIC_00046

Analyte	ICVL 240-275816/6 04/21/2017 11:31				CCVL 240-275816/64 04/21/2017 15:52							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Manganese	15.3		15.0	102	15.2		15.0	101				
Calcium	4990	J	5000	100	4970	J	5000	99				
Iron	199		200	99	197		200	98				
Magnesium	5140		5000	103	5160		5000	103				
Potassium	4940	J	5000	99	4900	J	5000	98				
SiO2, Silica	1070	J	1070	100	1080	J	1070	101				
Sodium	4900	J	5000	98	4850	J	5000	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00191

Analyte	ICV 240-275101/7 04/17/2017 11:10				CCV 240-275101/22 04/17/2017 12:29				CCV 240-275101/34 04/17/2017 13:19			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	38.8		40.0	97	49.4		50.0	99	51.2		50.0	102
Arsenic	39.8		40.0	99	51.3		50.0	103	51.2		50.0	102
Barium	38.4		40.0	96	49.8		50.0	100	50.8		50.0	102
Beryllium	39.1		40.0	98	49.4		50.0	99	48.8		50.0	98
Cadmium	39.6		40.0	99	50.7		50.0	101	52.4		50.0	105
Chromium	40.5		40.0	101	52.1		50.0	104	51.7		50.0	103
Cobalt	40.8		40.0	102	53.0		50.0	106	51.9		50.0	104
Copper	41.1		40.0	103	52.9		50.0	106	50.7		50.0	101
Iron	10200		10000	102	13100		12500	105	13100		12500	105
Lead	40.2		40.0	101	51.3		50.0	103	51.4		50.0	103
Manganese	203		200	102	260		250	104	257		250	103
Molybdenum	39.6		40.0	99	52.6		50.0	105	50.5		50.0	101
Nickel	41.6		40.0	104	52.4		50.0	105	49.9		50.0	100
Selenium	41.4		40.0	104	52.0		50.0	104	52.5		50.0	105
Silver	40.9		40.0	102	52.0		50.0	104	50.3		50.0	101
Thallium	39.0		40.0	98	50.2		50.0	100	50.1		50.0	100
Vanadium	41.3		40.0	103	52.8		50.0	106	52.4		50.0	105
Zinc	40.5		40.0	101	50.4		50.0	101	51.5		50.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-275101/9 04/17/2017 11:18 NA				CCVL 240-275101/36 04/17/2017 13:27 NA							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.98	J	2.00	99	2.11		2.00	105				
Arsenic	4.94	J	5.00	99	5.00		5.00	100				
Barium	4.67	J	5.00	93	4.85	J	5.00	97				
Beryllium	0.868	J	1.00	87	0.918	J	1.00	92				
Cadmium	1.01		1.00	101	1.06		1.00	106				
Chromium	2.04		2.00	102	2.03		2.00	101				
Cobalt	1.08		1.00	108	1.07		1.00	107				
Copper	2.18		2.00	109	1.99	J	2.00	100				
Iron	114		100	114	111		100	111				
Lead	1.07		1.00	107	1.09		1.00	109				
Manganese	5.19		5.00	104	5.22		5.00	104				
Molybdenum	5.00	J	5.00	100	4.83	J	5.00	97				
Nickel	1.99	J	2.00	100	1.90	J	2.00	95				
Selenium	5.39		5.00	108	5.28		5.00	106				
Silver	1.04		1.00	104	1.03		1.00	103				
Thallium	1.02		1.00	102	0.987	J	1.00	99				
Vanadium	5.03		5.00	101	5.11		5.00	102				
Zinc	21.3		20.0	106	21.0		20.0	105				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00191

Analyte	ICV 240-275207/8 04/18/2017 09:41				CCV 240-275207/34 04/18/2017 11:37				CCV 240-275207/45 04/18/2017 12:24			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	51.9		50.0	104	50.5		50.0	101
Arsenic	40.9		40.0	102	50.6		50.0	101	51.3		50.0	103
Barium	39.3		40.0	98	49.8		50.0	100	49.2		50.0	98
Beryllium	39.4		40.0	98	49.3		50.0	99	47.3		50.0	95
Cadmium	41.1		40.0	103	52.0		50.0	104	51.3		50.0	103
Chromium	40.2		40.0	100	51.0		50.0	102	50.9		50.0	102
Cobalt	40.2		40.0	101	51.8		50.0	104	51.8		50.0	104
Copper	40.9		40.0	102	53.1		50.0	106	52.9		50.0	106
Iron	10100		10000	101	12900		12500	103	12800		12500	102
Lead	39.7		40.0	99	51.3		50.0	103	50.5		50.0	101
Manganese	200		200	100	255		250	102	251		250	100
Molybdenum	40.1		40.0	100	51.2		50.0	102	50.6		50.0	101
Nickel	41.1		40.0	103	52.7		50.0	105	52.4		50.0	105
Selenium	41.9		40.0	105	50.4		50.0	101	49.8		50.0	100
Silver	40.3		40.0	101	51.0		50.0	102	50.4		50.0	101
Thallium	39.9		40.0	100	51.5		50.0	103	50.8		50.0	102
Vanadium	40.3		40.0	101	50.2		50.0	100	50.3		50.0	101
Zinc	40.1		40.0	100	52.1		50.0	104	51.3		50.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-275207/10 04/18/2017 09:50 NA				CCVL 240-275207/47 04/18/2017 12:32 NA							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.02		2.00	101	2.07		2.00	104				
Arsenic	5.03		5.00	101	4.98	J	5.00	100				
Barium	4.73	J	5.00	95	4.82	J	5.00	96				
Beryllium	0.886	J	1.00	89	0.955	J	1.00	96				
Cadmium	1.05		1.00	105	1.07		1.00	107				
Chromium	1.97	J	2.00	98	1.94	J	2.00	97				
Cobalt	1.04		1.00	104	1.03		1.00	103				
Copper	2.11		2.00	106	2.18		2.00	109				
Iron	112		100	112	115		100	115				
Lead	0.996	J	1.00	100	1.04		1.00	104				
Manganese	4.99	J	5.00	100	5.13		5.00	103				
Molybdenum	5.03	J	5.00	101	5.01	J	5.00	100				
Nickel	2.10		2.00	105	2.21		2.00	111				
Selenium	5.14		5.00	103	4.88	J	5.00	98				
Silver	0.992	J	1.00	99	1.05		1.00	105				
Thallium	1.03		1.00	103	1.00		1.00	100				
Vanadium	4.82	J	5.00	96	4.81	J	5.00	96				
Zinc	20.9		20.0	105	21.6		20.0	108				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00191

Analyte	ICV 240-275346/7 04/18/2017 14:28				CCV 240-275346/108 04/18/2017 21:42				CCV 240-275346/115 04/18/2017 22:12			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.4		40.0	101	53.3		50.0	107	52.6		50.0	105
Arsenic	41.0		40.0	103	54.5		50.0	109	53.5		50.0	107
Barium	40.0		40.0	100	50.0		50.0	100	49.4		50.0	99
Beryllium	40.7		40.0	102	49.0		50.0	98	50.4		50.0	101
Cadmium	40.8		40.0	102	54.2		50.0	108	51.9		50.0	104
Chromium	39.6		40.0	99	53.1		50.0	106	50.6		50.0	101
Copper	40.6		40.0	102	53.3		50.0	107	51.5		50.0	103
Iron	9930		10000	99	13100		12500	105	12600		12500	101
Lead	40.0		40.0	100	51.0		50.0	102	50.2		50.0	100
Manganese	202		200	101	260		250	104	250		250	100
Molybdenum	40.7		40.0	102	52.2		50.0	104	51.1		50.0	102
Silver	39.8		40.0	100	51.7		50.0	103	49.9		50.0	100
Thallium	40.4		40.0	101	50.7		50.0	101	50.1		50.0	100
Vanadium	41.8		40.0	105	53.7		50.0	107	50.8		50.0	102
Zinc	40.6		40.0	101	54.6		50.0	109	51.3		50.0	103
Cobalt	40.0		40.0	100	53.4		50.0	107	51.9		50.0	104
Nickel	40.4		40.0	101	53.4		50.0	107	51.8		50.0	104
Selenium	41.0		40.0	102					52.9		50.0	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-275346/9 04/18/2017 14:37 NA				CCVL 240-275346/117 04/18/2017 22:20 NA							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.02		2.00	101	2.08		2.00	104				
Arsenic	5.04		5.00	101	5.17		5.00	103				
Barium	5.14		5.00	103	4.37	J	5.00	87				
Beryllium	0.904	J	1.00	90	1.01		1.00	101				
Cadmium	0.960	J	1.00	96	1.16		1.00	116				
Chromium	2.00		2.00	100	2.24		2.00	112				
Copper	2.11		2.00	105	2.01		2.00	101				
Iron	109		100	109	110		100	110				
Lead	0.951	J	1.00	95	1.27		1.00	127				
Manganese	4.89	J	5.00	98	4.89	J	5.00	98				
Molybdenum	5.08	J	5.00	102	4.86	J	5.00	97				
Silver	0.999	J	1.00	100	0.978	J	1.00	98				
Thallium	1.00		1.00	100	1.30		1.00	130				
Vanadium	4.44	J	5.00	89	4.93	J	5.00	99				
Zinc	22.0		20.0	110	21.3		20.0	106				
Selenium	5.15		5.00	103	5.57		5.00	111				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTHgICV_00001_00161 Concentration Units: ug/L

CCV Source: MTHGCALW_01481

Analyte	ICV 240-274917/7-A 04/17/2017 13:21				CCV 240-274917/10-A 04/17/2017 14:38				CCV 240-274917/10-A 04/17/2017 15:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.86		5.00	97	5.19		5.00	104	5.14		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTHgICV_00001_00161 Concentration Units: ug/L

CCV Source: MTHGCALW_01481

Analyte	CCV 240-274917/10-A 04/17/2017 15:26				CCV 240-274917/10-A 04/17/2017 15:50							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.10		5.00	102	4.93		5.00	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTHgICV_00001_00161 Concentration Units: ug/L

CCV Source: MTHGCALW_01481

Analyte	ICV 240-274917/7-A 04/18/2017 10:35				CCV 240-274917/10-A 04/18/2017 10:46				CCV 240-274917/10-A 04/18/2017 11:19			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.80		5.00	96	4.90		5.00	98	5.09		5.00	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICV Source: MTHgICV_00001_00161 Concentration Units: ug/L

CCV Source: MTHGCALW_01481

Analyte	CCV 240-274917/10-A 04/18/2017 11:43											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.88		5.00	98								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-274917/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01481

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.228		114	50-150

Lab Sample ID: CRA 240-274917/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01481

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.229		114	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-274969/5 04/17/2017 09:00		CCB 240-274969/58 04/17/2017 13:35		CCB 240-274969/70 04/17/2017 14:28		CCB 240-274969/82 04/17/2017 15:20	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Magnesium	5000	230	U	230	U	230	U	230	U
Potassium	5000	70	U	70	U	70	U	70	U
SiO2, Silica	1100	140	U	140	U	140	U	140	U
Sodium	5000	330	U	330	U	330	U	330	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-275672/5 04/20/2017 09:16		CCB 240-275672/19 04/20/2017 10:16		CCB 240-275672/31 04/20/2017 11:20		CCB 240-275672/43 04/20/2017 12:13	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Iron	100	25	U	25	U	25	U	25	U
Magnesium	5000	230	U	230	U	230	U	230	U
Manganese	15	5.1	U	5.1	U	5.1	U	5.1	U
Potassium	5000	70	U	70	U	70	U	70	U
SiO2, Silica	1100	140	U	140	U	140	U	140	U
Sodium	5000	330	U	330	U	330	U	330	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-275816/5 04/21/2017 11:26		CCB 240-275816/55 04/21/2017 15:13		CCB 240-275816/63 04/21/2017 15:48			
		Found	C	Found	C	Found	C	Found	C
Manganese	15	5.1	U	5.1	U	5.1	U		
Calcium	5000	710	U	710	U	710	U		
Iron	100	25	U	25	U	25	U		
Magnesium	5000	230	U	230	U	230	U		
Potassium	5000	70	U	70	U	70	U		
SiO2, Silica	1100	140	U	140	U	140	U		
Sodium	5000	330	U	330	U	330	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-275101/8 04/17/2017 11:14		CCB 240-275101/23 04/17/2017 12:33		CCB 240-275101/35 04/17/2017 13:23			
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.353	J	0.227	J	0.271	J		
Arsenic	5.0	0.49	U	0.49	U	0.49	U		
Barium	5.0	1.1	U	1.1	U	1.1	U		
Beryllium	1.0	0.053	U	0.053	U	0.0790	J		
Cadmium	1.0	0.061	U	0.061	U	0.061	U		
Chromium	2.0	0.60	U	0.60	U	0.60	U		
Cobalt	1.0	0.021	U	0.021	U	0.0210	J		
Copper	2.0	0.75	U	0.75	U	0.75	U		
Iron	100	16	U	16	U	16	U		
Lead	1.0	0.11	U	0.11	U	0.11	U		
Manganese	5.0	1.1	U	1.1	U	1.1	U		
Molybdenum	10	0.23	U	0.23	U	0.23	U		
Nickel	2.0	0.23	U	0.23	U	0.23	U		
Selenium	5.0	0.25	U	0.25	U	0.25	U		
Silver	1.0	0.020	U	0.020	U	0.020	U		
Thallium	1.0	0.074	U	0.074	U	0.074	U		
Vanadium	5.0	0.23	U	0.23	U	0.23	U		
Zinc	20	7.3	U	7.3	U	7.3	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-275207/9 04/18/2017 09:46		CCB 240-275207/35 04/18/2017 11:42		CCB 240-275207/46 04/18/2017 12:28			
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.316	J	0.310	J	0.222	J		
Arsenic	5.0	0.49	U	0.49	U	0.49	U		
Barium	5.0	1.1	U	1.1	U	1.1	U		
Beryllium	1.0	0.053	U	0.112	J	0.053	U		
Cadmium	1.0	0.061	U	0.0960	J	0.061	U		
Chromium	2.0	0.60	U	0.60	U	0.60	U		
Cobalt	1.0	0.021	U	0.0210	J	0.021	U		
Copper	2.0	0.75	U	0.75	U	0.75	U		
Iron	100	16	U	16	U	16	U		
Lead	1.0	0.11	U	0.11	U	0.11	U		
Manganese	5.0	1.1	U	1.1	U	1.1	U		
Molybdenum	10	0.23	U	0.23	U	0.23	U		
Nickel	2.0	0.23	U	0.23	U	0.23	U		
Selenium	5.0	0.25	U	0.25	U	0.25	U		
Silver	1.0	0.020	U	0.0200	J	0.020	U		
Thallium	1.0	0.074	U	0.074	U	0.074	U		
Vanadium	5.0	0.23	U	0.23	U	0.23	U		
Zinc	20	7.3	U	7.3	U	7.3	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-275346/8 04/18/2017 14:32 NA		CCB 240-275346/109 04/18/2017 21:46 NA		CCB 240-275346/116 04/18/2017 22:16 NA			
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.278	J	0.16	U	0.16	U		
Arsenic	5.0	0.49	U	0.49	U	0.49	U		
Barium	5.0	1.1	U	1.1	U	1.1	U		
Beryllium	1.0	0.053	U	0.053	U	0.0530	J		
Cadmium	1.0	0.061	U	0.061	U	0.061	U		
Chromium	2.0	0.60	U	0.60	U	0.60	U		
Copper	2.0	0.75	U	0.75	U	0.75	U		
Iron	100	16	U	16	U	16	U		
Lead	1.0	0.11	U	0.447	J	0.364	J		
Manganese	5.0	1.1	U	1.1	U	1.1	U		
Molybdenum	10	0.23	U	0.23	U	0.23	U		
Silver	1.0	0.020	U	0.020	U	0.020	U		
Thallium	1.0	0.0780	J	0.373	J	0.357	J		
Vanadium	5.0	0.23	U	0.23	U	0.23	U		
Zinc	20	7.3	U	7.3	U	7.3	U		
Cobalt	1.0	0.021	U	0.513	J	0.617	J		
Nickel	2.0	0.23	U	0.635	J	0.533	J		
Selenium	5.0	0.260	J	0.608	J	0.409	J		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-274917/8-A 04/17/2017 13:23		CCB 240-274917/11-A 04/17/2017 14:40		CCB 240-274917/11-A 04/17/2017 15:05		CCB 240-274917/11-A 04/17/2017 15:28	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-274917/11-A 04/17/2017 15:52							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-274917/8-A 04/18/2017 10:37		CCB 240-274917/11-A 04/18/2017 10:48		CCB 240-274917/11-A 04/18/2017 11:20		CCB 240-274917/11-A 04/18/2017 11:45	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-274741/1-A

Instrument Code: I12 Batch No.: 274969

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	710	U		6010C
7440-09-7	Potassium	70	U		6010C
7439-95-4	Magnesium	230	U		6010C
7440-23-5	Sodium	330	U		6010C
14808-60-7	SiO2, Silica	140	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-275352/1-A

Instrument Code: I9 Batch No.: 275672

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	710	U		6010C
7440-09-7	Potassium	70	U		6010C
7439-95-4	Magnesium	230	U		6010C
7440-23-5	Sodium	330	U		6010C
14808-60-7	SiO2, Silica	140	U		6010C
7439-89-6	Iron	25	U		6010C
7439-96-5	Manganese	5.1	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-274741/1-A

Instrument Code: I10 Batch No.: 275101

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.27	U		6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	1.37	J		6020A
7440-41-7	Beryllium	0.40	U		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.26	U		6020A
7440-50-8	Copper	0.771	J		6020A
7439-89-6	Iron	15.4	J		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	0.535	J		6020A
7440-02-0	Nickel	0.28	U		6020A
7439-92-1	Lead	0.16	U		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	10.4	J		6020A
7440-22-4	Silver	0.030	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-274962/1-A

Instrument Code: I10 Batch No.: 275207

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.27	U		6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	1.52	J		6020A
7440-41-7	Beryllium	0.40	U		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.26	U		6020A
7440-50-8	Copper	0.644	J		6020A
7439-89-6	Iron	10.4	J		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	0.419	J		6020A
7440-02-0	Nickel	0.28	U		6020A
7439-92-1	Lead	0.16	U		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	6.2	U		6020A
7440-22-4	Silver	0.030	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-274744/1-A

Instrument Code: H3 Batch No.: 275038

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-274967/1-A

Instrument Code: H3 Batch No.: 275223

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSA 240-274969/8 Instrument ID: I12

Lab File ID: I12041717A.asc ICS Source: MTTRICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**470820**	**94**
Magnesium	**500000**	**507940**	**102**
Potassium		**38.9**	
Sodium		**263**	
Aluminum	*500000*	*516090*	*103*
Antimony		*8.82*	
Arsenic		*-4.11*	
Barium		*0.382*	
Beryllium		*0.235*	
Boron		*3.50*	
Cadmium		*1.42*	
Chromium		*2.58*	
Cobalt		*-4.03*	
Copper		*-3.69*	
Iron	*200000*	*188420*	*94*
Lead		*0.927*	
Lithium		*3.26*	
Manganese		*2.09*	
Molybdenum		*-1.50*	
Nickel		*-3.92*	
Selenium		*3.90*	
Silicon		*-62.7*	
Silver		*-3.42*	
Strontium		*7.56*	
Thallium		*3.19*	
Tin		*-2.18*	
Titanium		*-1.67*	
Vanadium		*-4.28*	
Zinc		*0.869*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSAB 240-274969/9 Instrument ID: I12

Lab File ID: I12041717A.asc ICS Source: MTICPICSABW_00013

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**478050**	**96**
Magnesium	**500000**	**519700**	**104**
Potassium	**10000**	**10655**	**107**
Sodium	**10000**	**11145**	**111**
Aluminum	*500000*	*525370*	*105*
Antimony	*1000*	*1033*	*103*
Arsenic	*1000*	*1003*	*100*
Barium	*500*	*501*	*100*
Beryllium	*500*	*491*	*98*
Boron	*500*	*527*	*105*
Cadmium	*1000*	*1028*	*103*
Chromium	*500*	*472*	*94*
Cobalt	*500*	*471*	*94*
Copper	*500*	*514*	*103*
Iron	*200000*	*190650*	*95*
Lead	*1000*	*933*	*93*
Lithium	*500*	*538*	*108*
Manganese	*500*	*472*	*94*
Molybdenum	*1000*	*959*	*96*
Nickel	*1000*	*932*	*93*
Selenium	*1000*	*994*	*99*
Silicon	*10000*	*9846*	*98*
Silver	*1000*	*1035*	*103*
Strontium	*1500*	*1415*	*94*
Thallium	*1000*	*949*	*95*
Tin	*500*	*485*	*97*
Titanium	*500*	*496*	*99*
Vanadium	*500*	*478*	*96*
Zinc	*1000*	*926*	*93*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSA 240-275672/8 Instrument ID: I9

Lab File ID: I9042017A.asc ICS Source: MTTRICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**453720**	**91**
Iron	**200000**	**182680**	**91**
Magnesium	**500000**	**487130**	**97**
Manganese		**1.80**	
Potassium		**9.61**	
Sodium		**40.4**	
Aluminum	*500000*	*483880*	*97*
Antimony		*-5.90*	
Arsenic		*-0.881*	
Barium		*0.254*	
Beryllium		*0.102*	
Boron		*-9.42*	
Cadmium		*-0.288*	
Chromium		*3.30*	
Cobalt		*-0.317*	
Copper		*-6.01*	
Lead		*3.49*	
Lithium		*9.88*	
Molybdenum		*-1.83*	
Nickel		*2.53*	
Selenium		*-3.09*	
Silicon		*2.43*	
Silver		*-0.496*	
Strontium		*9.81*	
Thallium		*2.48*	
Tin		*6.77*	
Titanium		*-0.700*	
Vanadium		*-2.78*	
Zinc		*0.615*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSAB 240-275672/9 Instrument ID: I9

Lab File ID: I9042017A.asc ICS Source: MTICPICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**459060**	**92**
Iron	**200000**	**184740**	**92**
Magnesium	**500000**	**495330**	**99**
Manganese	**500**	**488**	**98**
Potassium	**10000**	**9938**	**99**
Sodium	**10000**	**9993**	**100**
Aluminum	*500000*	*489220*	*98*
Antimony	*1000*	*994*	*99*
Arsenic	*1000*	*1013*	*101*
Barium	*500*	*489*	*98*
Beryllium	*500*	*478*	*96*
Boron	*500*	*490*	*98*
Cadmium	*1000*	*1012*	*101*
Chromium	*500*	*486*	*97*
Cobalt	*500*	*507*	*101*
Copper	*500*	*508*	*102*
Lead	*1000*	*890*	*89*
Lithium	*500*	*525*	*105*
Molybdenum	*1000*	*921*	*92*
Nickel	*1000*	*1012*	*101*
Selenium	*1000*	*983*	*98*
Silicon	*10000*	*9647*	*96*
Silver	*1000*	*1051*	*105*
Strontium	*1500*	*1439*	*96*
Thallium	*1000*	*952*	*95*
Tin	*500*	*523*	*105*
Titanium	*500*	*495*	*99*
Vanadium	*500*	*483*	*97*
Zinc	*1000*	*1059*	*106*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSA 240-275816/8 Instrument ID: I9

Lab File ID: I9042117A.asc ICS Source: MTTRICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Manganese		**1.56**	
Aluminum	*500000*	*500240*	*100*
Antimony		*0.139*	
Arsenic		*2.24*	
Barium		*0.106*	
Beryllium		*0.0843*	
Boron		*-11.9*	
Cadmium		*-0.162*	
Calcium	*500000*	*468250*	*94*
Chromium		*1.54*	
Cobalt		*-0.158*	
Copper		*-6.00*	
Iron	*200000*	*185640*	*93*
Lead		*3.06*	
Lithium		*7.05*	
Magnesium	*500000*	*500510*	*100*
Molybdenum		*-1.79*	
Nickel		*1.35*	
Potassium		*-22.4*	
Selenium		*-3.76*	
Silicon		*-3.03*	
Silver		*-0.145*	
Sodium		*75.3*	
Strontium		*6.72*	
Thallium		*-0.372*	
Tin		*6.13*	
Titanium		*-0.660*	
Vanadium		*0.251*	
Zinc		*0.0190*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSAB 240-275816/9 Instrument ID: I9

Lab File ID: I9042117A.asc ICS Source: MTICPICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Manganese	**500**	**486**	**97**
Aluminum	*500000*	*505430*	*101*
Antimony	*1000*	*995*	*100*
Arsenic	*1000*	*1010*	*101*
Barium	*500*	*489*	*98*
Beryllium	*500*	*476*	*95*
Boron	*500*	*488*	*98*
Cadmium	*1000*	*1019*	*102*
Calcium	*500000*	*474610*	*95*
Chromium	*500*	*476*	*95*
Cobalt	*500*	*506*	*101*
Copper	*500*	*512*	*102*
Iron	*200000*	*188350*	*94*
Lead	*1000*	*876*	*88*
Lithium	*500*	*534*	*107*
Magnesium	*500000*	*511230*	*102*
Molybdenum	*1000*	*913*	*91*
Nickel	*1000*	*1004*	*100*
Potassium	*10000*	*10328*	*103*
Selenium	*1000*	*994*	*99*
Silicon	*10000*	*9858*	*99*
Silver	*1000*	*1065*	*106*
Sodium	*10000*	*10365*	*104*
Strontium	*1500*	*1410*	*94*
Thallium	*1000*	*941*	*94*
Tin	*500*	*514*	*103*
Titanium	*500*	*488*	*98*
Vanadium	*500*	*474*	*95*
Zinc	*1000*	*1049*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSA 240-275101/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.157**	
Arsenic		**0.0670**	
Barium		**0.0400**	
Beryllium		**0.0120**	
Cadmium		**0.0830**	
Chromium		**0.712**	
Cobalt		**0.0110**	
Copper		**0.358**	
Iron	**50000**	**52294**	**105**
Lead		**0.124**	
Manganese		**0.180**	
Molybdenum	**1000**	**1083**	**108**
Nickel		**0.0740**	
Selenium		**0.126**	
Silver		**0.0150**	
Thallium		**0.0000**	
Vanadium		**-0.0580**	
Zinc		**0.185**	
Aluminum	*50000*	*53287*	*107*
Boron		*1.22*	
Calcium	*50000*	*52174*	*104*
Lithium		*0.391*	
Magnesium	*50000*	*52158*	*104*
Potassium	*50000*	*51921*	*104*
Sodium	*50000*	*52317*	*105*
Strontium		*0.327*	
Tin		*0.0790*	
Titanium	*1000*	*1021*	*102*
Tungsten		*0.237*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSAB 240-275101/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00075

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**102**	**102**
Barium	**100**	**100**	**100**
Beryllium	**100**	**102**	**102**
Cadmium	**100**	**101**	**101**
Chromium	**100**	**105**	**105**
Cobalt	**100**	**105**	**105**
Copper	**100**	**101**	**101**
Iron	**50000**	**51534**	**103**
Lead	**100**	**104**	**104**
Manganese	**100**	**105**	**105**
Molybdenum	**1100**	**1187**	**108**
Nickel	**100**	**102**	**102**
Selenium	**100**	**101**	**101**
Silver	**100**	**95.5**	**95**
Thallium	**100**	**107**	**107**
Vanadium	**100**	**105**	**105**
Zinc	**100**	**101**	**101**
Aluminum	*50000*	*52310*	*105*
Boron	*100*	*96.7*	*97*
Calcium	*50000*	*51417*	*103*
Lithium	*100*	*103*	*103*
Magnesium	*50000*	*51238*	*102*
Potassium	*50000*	*51103*	*102*
Sodium	*50000*	*51610*	*103*
Strontium	*100*	*102*	*102*
Tin	*100*	*98.9*	*99*
Titanium	*1100*	*1114*	*101*
Tungsten	*100*	*105*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSA 240-275207/11 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.110**	
Arsenic		**0.0480**	
Barium		**0.0400**	
Beryllium		**-0.0090**	
Cadmium		**0.158**	
Chromium		**0.720**	
Cobalt		**0.0070**	
Copper		**0.373**	
Iron	**50000**	**49174**	**98**
Lead		**0.0910**	
Manganese		**0.168**	
Molybdenum	**1000**	**1040**	**104**
Nickel		**0.0370**	
Selenium		**-0.102**	
Silver		**0.0120**	
Thallium		**0.0000**	
Vanadium		**0.111**	
Zinc		**0.502**	
Aluminum	*50000*	*47935*	*96*
Boron		*0.471*	
Calcium	*50000*	*49841*	*100*
Lithium		*-0.132*	
Magnesium	*50000*	*49901*	*100*
Potassium	*50000*	*50272*	*101*
Sodium	*50000*	*49486*	*99*
Strontium		*0.345*	
Tin		*0.252*	
Titanium	*1000*	*1012*	*101*
Tungsten		*0.248*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSAB 240-275207/12 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00077

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**93.7**	**94**
Arsenic	**100**	**101**	**101**
Barium	**100**	**99.1**	**99**
Beryllium	**100**	**99.5**	**99**
Cadmium	**100**	**101**	**101**
Chromium	**100**	**101**	**101**
Cobalt	**100**	**101**	**101**
Copper	**100**	**102**	**102**
Iron	**50000**	**50631**	**101**
Lead	**100**	**102**	**102**
Manganese	**100**	**101**	**101**
Molybdenum	**1100**	**1164**	**106**
Nickel	**100**	**102**	**102**
Selenium	**100**	**103**	**103**
Silver	**100**	**99.7**	**100**
Thallium	**100**	**106**	**106**
Vanadium	**100**	**101**	**101**
Zinc	**100**	**97.1**	**97**
Aluminum	*50000*	*49071*	*98*
Boron	*100*	*101*	*101*
Calcium	*50000*	*50577*	*101*
Lithium	*100*	*100*	*100*
Magnesium	*50000*	*50678*	*101*
Potassium	*50000*	*50428*	*101*
Sodium	*50000*	*50466*	*101*
Strontium	*100*	*101*	*101*
Tin	*100*	*100*	*100*
Titanium	*1100*	*1140*	*104*
Tungsten	*100*	*106*	*106*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSA 240-275346/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.127**	
Arsenic		**0.0970**	
Barium		**0.214**	
Beryllium		**0.0060**	
Cadmium		**0.250**	
Chromium		**0.655**	
Copper		**0.313**	
Iron	**50000**	**49856**	**100**
Lead		**0.0650**	
Manganese		**-0.0930**	
Molybdenum	**1000**	**1015**	**102**
Silver		**0.0150**	
Thallium		**0.0290**	
Vanadium		**0.128**	
Zinc		**0.0060**	
Aluminum	*50000*	*50157*	*100*
Calcium	*50000*	*50027*	*100*
Cobalt		*0.0270*	
Magnesium	*50000*	*50705*	*101*
Nickel		*0.337*	
Potassium	*50000*	*49603*	*99*
Selenium		*0.0290*	
Sodium	*50000*	*49789*	*100*
Strontium		*-5.34*	
Tin		*-0.219*	
Titanium	*1000*	*1020*	*102*
Tungsten		*0.169*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Lab Sample ID: ICSAB 240-275346/11 Instrument ID: I10

Lab File ID: 012ICAB.d ICS Source: MTMSICSABW_00077

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**97.1**	**97**
Arsenic	**100**	**101**	**101**
Barium	**100**	**95.0**	**95**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**98.5**	**98**
Chromium	**100**	**98.8**	**99**
Copper	**100**	**100**	**100**
Iron	**50000**	**49539**	**99**
Lead	**100**	**97.4**	**97**
Manganese	**100**	**100**	**100**
Molybdenum	**1100**	**1096**	**100**
Silver	**100**	**97.6**	**98**
Thallium	**100**	**97.9**	**98**
Vanadium	**100**	**102**	**102**
Zinc	**100**	**102**	**102**
Aluminum	*50000*	*50044*	*100*
Boron	*100*	*102*	*102*
Calcium	*50000*	*49616*	*99*
Cobalt	*100*	*99.7*	*100*
Lithium	*100*	*97.2*	*97*
Magnesium	*50000*	*51226*	*102*
Nickel	*100*	*101*	*101*
Potassium	*50000*	*49612*	*99*
Selenium	*100*	*102*	*102*
Sodium	*50000*	*50362*	*101*
Strontium	*100*	*91.3*	*91*
Tin	*100*	*97.7*	*98*
Titanium	*1100*	*1112*	*101*
Tungsten	*100*	*108*	*108*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW12B-041217 MS
Lab ID: 240-78035-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-78035-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	103		0.68	J	100	102	75-125		6020A
Arsenic	1020		0.69	J	1000	102	75-125		6020A
Barium	1160		140		1000	102	75-125		6020A
Beryllium	998		0.40	U	1000	100	75-125		6020A
Cadmium	1050		0.31	U	1000	105	75-125		6020A
Cobalt	1130		38		1000	109	75-125		6020A
Chromium	1070		0.30	J	1000	107	75-125		6020A
Copper	1050		0.36	U	1000	105	75-125		6020A
Iron	33400		22000		10000	111	75-125		6020A
Molybdenum	100		0.51	U	100	100	75-125		6020A
Manganese	4350		3100		1000	123	75-125		6020A
Nickel	1160		56		1000	111	75-125		6020A
Lead	1070		0.37	J	1000	107	75-125		6020A
Selenium	1010		0.54	J	1000	101	75-125		6020A
Thallium	259		0.28	U	250	103	75-125		6020A
Vanadium	1080		0.54	U	1000	108	75-125		6020A
Zinc	1040		54		1000	99	75-125		6020A
Silver	103		0.030	U	100	103	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-78028-K-6-B MS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	351000		310000		50000	74	75-125	4	6010C
Potassium	54100		1000	J	50000	106	75-125		6010C
Magnesium	253000		210000		50000	89	75-125	4	6010C
SiO2, Silica	25600		20000		2140	247	75-125	4	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-78028-K-6-E MS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.14		0.13	U	1.00	114	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-78088-P-1-C MS ^100

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	151	J	27	U	100	151	75-125	F1	6020A
Arsenic	1070		35	U	1000	107	75-125		6020A
Barium	335000		350000		1000	-1445	75-125	4	6020A
Beryllium	1110		40	U	1000	111	75-125		6020A
Cadmium	957		31	U	1000	96	75-125		6020A
Chromium	1010		30	J	1000	98	75-125		6020A
Copper	960		36	U	1000	96	75-125		6020A
Iron	134000		130000		10000	46	75-125	4	6020A
Molybdenum	154	J	51	U	100	154	75-125	F1	6020A
Manganese	13600		13000		1000	81	75-125	4	6020A
Lead	1010		34	J	1000	98	75-125		6020A
Thallium	291		34	J	250	103	75-125		6020A
Vanadium	994		54	U	1000	99	75-125		6020A
Zinc	1100	J	620	U	1000	110	75-125		6020A
Silver	97.9	J	3.0	U	100	98	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-78086-F-21-E MS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.06		0.13	U	1.00	106	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-78241-T-9-B MS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	263000		220000		50000	86	75-125	4	6010C
Potassium	98900		49000		50000	99	75-125		6010C
Magnesium	147000		98000		50000	97	75-125		6010C
Sodium	325000		270000		50000	103	75-125	4	6010C
SiO2, Silica	11100		9000		2140	101	75-125	4	6010C
Iron	2950		2000		1000	92	75-125		6010C
Manganese	1070		590		500	95	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW12B-041217 MSD | Lab ID: 240-78035-2 MSD

Lab Name: TestAmerica Canton | Job No.: 240-78035-1

SDG No.:

Matrix: Water | Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	102		100	101	75-125	1	20		6020A
Arsenic	1010		1000	101	75-125	1	20		6020A
Barium	1160		1000	102	75-125	1	20		6020A
Beryllium	1010		1000	101	75-125	2	20		6020A
Cadmium	1050		1000	105	75-125	0	20		6020A
Cobalt	1140		1000	111	75-125	1	20		6020A
Chromium	1070		1000	107	75-125	0	20		6020A
Copper	1040		1000	104	75-125	1	20		6020A
Iron	33900		10000	116	75-125	2	20		6020A
Molybdenum	102		100	102	75-125	1	20		6020A
Manganese	4320		1000	120	75-125	1	20		6020A
Nickel	1190		1000	113	75-125	2	20		6020A
Lead	1070		1000	107	75-125	0	20		6020A
Selenium	1010		1000	101	75-125	0	20		6020A
Thallium	259		250	104	75-125	0	20		6020A
Vanadium	1090		1000	109	75-125	0	20		6020A
Zinc	1040		1000	98	75-125	0	20		6020A
Silver	105		100	105	75-125	2	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-78028-K-6-C MSD

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	356000		50000	85	75-125	2	20	4	6010C
Potassium	56400		50000	111	75-125	4	20		6010C
Magnesium	257000		50000	97	75-125	2	20	4	6010C
SiO2, Silica	26100		2140	267	75-125	2	20	4	6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-78028-K-6-F MSD

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.11		1.00	111	80-120	3	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-78088-P-1-D MSD ^100

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	116	J	100	116	75-125	26	20	F2	6020A
Arsenic	1090		1000	109	75-125	2	20		6020A
Barium	355000		1000	480	75-125	6	20	4	6020A
Beryllium	1100		1000	110	75-125	1	20		6020A
Cadmium	762		1000	76	75-125	23	20	F2	6020A
Chromium	1030		1000	100	75-125	2	20		6020A
Copper	969		1000	97	75-125	1	20		6020A
Iron	138000		10000	82	75-125	3	20	4	6020A
Molybdenum	117	J	100	117	75-125	27	20	F2	6020A
Manganese	13800		1000	94	75-125	1	20	4	6020A
Lead	856		1000	82	75-125	17	20		6020A
Thallium	284		250	100	75-125	3	20		6020A
Vanadium	944		1000	94	75-125	5	20		6020A
Zinc	1010	J	1000	101	75-125	8	20		6020A
Silver	83.9	J	100	84	75-125	15	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-78086-F-21-F MSD

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.960		1.00	96	80-120	10	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-78241-T-9-C MSD

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	264000		50000	90	75-125	1	20	4	6010C
Potassium	99800		50000	101	75-125	1	20		6010C
Magnesium	148000		50000	99	75-125	1	20		6010C
Sodium	323000		50000	99	75-125	1	20	4	6010C
SiO2, Silica	11200		2140	103	75-125	0	20	4	6010C
Iron	2970		1000	95	75-125	1	20		6010C
Manganese	1090		500	100	75-125	2	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-274741/2-A

Lab Name: TestAmerica Canton Job No.: 240-78035-1

Sample Matrix: Water LCS Source: MTICP2A_00070

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	52000		104	80	120		6010C
Potassium	50000	52700		105	80	120		6010C
Magnesium	50000	52300		105	80	120		6010C
Sodium	50000	54600		109	80	120		6010C
SiO2, Silica	2140	2280		106	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-275352/2-A

Lab Name: TestAmerica Canton Job No.: 240-78035-1

Sample Matrix: Water LCS Source: MTICP2A_00070

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	45000		90	80	120		6010C
Potassium	50000	44200		88	80	120		6010C
Magnesium	50000	45600		91	80	120		6010C
Sodium	50000	44700		89	80	120		6010C
SiO2, Silica	2140	2060		96	80	120		6010C
Iron	1000	918		92	80	120		6010C
Manganese	500	461		92	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-274741/28-A

Lab Name: TestAmerica Canton Job No.: 240-78035-1

Sample Matrix: Water LCS Source: MTICPMSB_00031

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	101		101	80	120		6020A
Arsenic	1000	1030		103	80	120		6020A
Barium	1000	1000		100	80	120		6020A
Beryllium	1000	1040		104	80	120		6020A
Cadmium	1000	1060		106	80	120		6020A
Cobalt	1000	1130		113	80	120		6020A
Chromium	1000	1100		110	80	120		6020A
Copper	1000	1090		109	80	120		6020A
Iron	10000	10500		105	80	120		6020A
Molybdenum	100	100		100	80	120		6020A
Manganese	1000	1120		112	80	120		6020A
Nickel	1000	1130		113	80	120		6020A
Lead	1000	1090		109	80	120		6020A
Selenium	1000	1050		105	80	120		6020A
Thallium	250	265		106	80	120		6020A
Vanadium	1000	1110		111	80	120		6020A
Zinc	1000	1030		103	80	120		6020A
Silver	100	106		106	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-274962/3-A

Lab Name: TestAmerica Canton Job No.: 240-78035-1

Sample Matrix: Water LCS Source: MTICPMSB_00031

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	102		102	80	120		6020A
Arsenic	1000	1000		100	80	120		6020A
Barium	1000	1010		101	80	120		6020A
Beryllium	1000	1030		103	80	120		6020A
Cadmium	1000	1070		107	80	120		6020A
Cobalt	1000	1100		110	80	120		6020A
Chromium	1000	1050		105	80	120		6020A
Copper	1000	1140		114	80	120		6020A
Iron	10000	10400		104	80	120		6020A
Molybdenum	100	98.1		98	80	120		6020A
Manganese	1000	1040		104	80	120		6020A
Nickel	1000	1050		105	80	120		6020A
Lead	1000	1080		108	80	120		6020A
Selenium	1000	1030		103	80	120		6020A
Thallium	250	271		109	80	120		6020A
Vanadium	1000	1050		105	80	120		6020A
Zinc	1000	1030		103	80	120		6020A
Silver	100	105		105	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-274744/2-A

Lab Name: TestAmerica Canton Job No.: 240-78035-1

Sample Matrix: Water LCS Source: MTHGCALW_01480

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.90		98	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-274967/2-A

Lab Name: TestAmerica Canton Job No.: 240-78035-1

Sample Matrix: Water LCS Source: MTHGCALW_01481

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.96		99	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-78028-K-6-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-78035-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	310000		323000		3.0		6010C
Potassium	1000	J	862	J	NC		6010C
Magnesium	210000		208000		0.20		6010C
SiO2, Silica	20000		20000		1.9		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-78241-T-9-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-78035-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	220000		222000		1.2		6010C
Potassium	49000		48100		2.5		6010C
Magnesium	98000		101000		2.8		6010C
Sodium	270000		273000		0.06		6010C
SiO2, Silica	9000		8780		2.0		6010C
Iron	2000		2040		0.83		6010C
Manganese	590		596		1.0		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-78035-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-78035-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.68	J	1.4	U	NC		6020A
Arsenic	0.69	J	1.8	U	NC		6020A
Barium	140		139		NC		6020A
Beryllium	0.40	U	2.0	U	NC		6020A
Cadmium	0.31	U	1.6	U	NC		6020A
Cobalt	38		38.9		NC		6020A
Chromium	0.30	J	1.3	U	NC		6020A
Copper	0.36	U	1.8	U	NC		6020A
Iron	22000		23100		3.7		6020A
Molybdenum	0.51	U	2.6	U	NC		6020A
Manganese	3100		3240		4.0		6020A
Nickel	56		56.6		NC		6020A
Lead	0.37	J	0.80	U	NC		6020A
Selenium	0.54	J	2.4	U	NC		6020A
Thallium	0.28	U	1.4	U	NC		6020A
Vanadium	0.54	U	2.7	U	NC		6020A
Zinc	54		61.0	J	NC		6020A
Silver	0.030	U	0.15	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-78088-P-1-B SD ^500

SDG No:

Lab Name: TestAmerica Canton Job No: 240-78035-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	27	U	140	U	NC		6020A
Arsenic	35	U	180	U	NC		6020A
Barium	350000		347000		0.85		6020A
Beryllium	40	U	200	U	NC		6020A
Cadmium	31	U	160	U	NC		6020A
Chromium	30	J	130	U	NC		6020A
Copper	36	U	180	U	NC		6020A
Iron	130000		134000		NC		6020A
Molybdenum	51	U	260	U	NC		6020A
Manganese	13000		13200		NC		6020A
Lead	34	J	142	J	NC		6020A
Thallium	34	J	162	J	NC		6020A
Vanadium	54	U	270	U	NC		6020A
Zinc	620	U	3100	U	NC		6020A
Silver	3.0	U	15	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	710
Magnesium	279.078	5000	230
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	710
Magnesium	279.078	5000	230
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	710
Iron	271.441	100	25
Magnesium	279.078	5000	230
Manganese	257.610	15	5.1
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	710
Iron	271.441	100	25
Magnesium	279.078	5000	230
Manganese	257.610	15	5.1
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 12/13/2016 11:36

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.27
Arsenic	75.00	5	0.35
Barium	137.00	5	0.52
Beryllium	9.00	1	0.4
Cadmium	111.00	1	0.31
Chromium	52.00	2	0.26
Cobalt	59.00	1	0.13
Copper	65.00	2	0.36
Iron	56.00	100	5.3
Lead	208.00	1	0.16
Manganese	55.00	5	0.25
Molybdenum	95.00	10	0.51
Nickel	60.00	2	0.28
Selenium	78.00	5	0.48
Silver	107.00	1	0.03
Thallium	205.00	1	0.28
Vanadium	51.00	5	0.54
Zinc	66.00	20	6.22

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 09/15/2014 17:03

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.16
Arsenic	75.00	5	0.49
Barium	137.00	5	1.1
Beryllium	9.00	1	0.053
Cadmium	111.00	1	0.061
Chromium	52.00	2	0.6
Cobalt	59.00	1	0.021
Copper	65.00	2	0.75
Iron	56.00	100	16
Lead	208.00	1	0.11
Manganese	55.00	5	1.1
Molybdenum	95.00	10	0.23
Nickel	60.00	2	0.23
Selenium	78.00	5	0.25
Silver	107.00	1	0.02
Thallium	205.00	1	0.074
Vanadium	51.00	5	0.23
Zinc	66.00	20	7.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 01/20/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.030656				0.066045	
Antimony		-0.000064			-0.000244			-0.000054						0.002941	
Arsenic		0.000016			-0.000333	0.000782			-0.000355	0.002123					
Beryllium														0.000282	
Cadmium			0.01262					0.000002							
Chromium									0.000453						
Cobalt													0.001895		
Copper				0.000018	0.000361			-0.000017					-0.003237		
Lead		-0.000086					0.000101	0.000044			0.000131	0.00004			
Lithium				0.000011											
Nickel					0.000518			0.000081							
Selenium		-0.00002							0.000338						
Thallium		0.000022			0.002708			-0.000025	0.000571					0.001707	
Vanadium								0.000067							
Zinc						-0.001092									

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 02/13/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.029315					0.096009
Antimony		-0.000073			-0.000451			-0.000051							0.002146
Arsenic		0.000034			-0.00051	0.000538			-0.000355	0.001291					
Barium															
Beryllium															0.0000165
Boron															
Cadmium			0.006886					0.000001							
Calcium															
Chromium															
Cobalt													0.002313		
Copper				0.000018	0.000453			-0.000001					-0.000463		
Iron													-		
Lead		-0.000122					0.000515	0.000028			0.00007657	0.000088			
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000799			0.000075							
Potassium															
Selenium		-0.000010							0.000643						
Silver															
Sodium															
Strontium															
Thallium		-0.000010			0.001132			0.000007	0.001101				-0.000497		-0.0005212
Tin															
Titanium															
Vanadium								0.000032							
Zinc						-0.000286									

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-78035-1

SDG No.:

Instrument ID: I12 Date: 01/24/2017 12:29

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		800000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-78035-1

SDG No.:

Instrument ID: I9 Date: 08/22/2016 11:36

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		800000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C
Iron		500000	6010C
Manganese		15000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-78035-1

SDG No.:

Instrument ID: I10 Date: 10/14/2016 11:32

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Arsenic		10000	6020A
Barium		10000	6020A
Beryllium		2000	6020A
Cadmium		4000	6020A
Cobalt		5000	6020A
Chromium		10000	6020A
Copper		10000	6020A
Iron		200000	6020A
Molybdenum		2000	6020A
Manganese		10000	6020A
Nickel		10000	6020A
Lead		4000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Vanadium		10000	6020A
Zinc		10000	6020A
Silver		300	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-274741/1-A	04/14/2017 14:00	274741		50	50
LCS 240-274741/2-A	04/14/2017 14:00	274741		50	50
240-78028-K-6-B MS	04/14/2017 14:00	274741		50	50
240-78028-K-6-C MSD	04/14/2017 14:00	274741		50	50
240-78035-2	04/14/2017 14:00	274741		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-275352/1-A	04/19/2017 14:00	275352		50	50
LCS 240-275352/2-A	04/19/2017 14:00	275352		50	50
240-78241-T-9-B MS	04/19/2017 14:00	275352		50	50
240-78241-T-9-C MSD	04/19/2017 14:00	275352		50	50
240-78206-2	04/19/2017 14:00	275352		50	50
240-78206-3	04/19/2017 14:00	275352		50	50
240-78206-5	04/19/2017 14:00	275352		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-274741/1-A	04/14/2017 14:00	274741		50	50
240-78035-2	04/14/2017 14:00	274741		50	50
240-78035-2 MS	04/14/2017 14:00	274741		50	50
240-78035-2 MSD	04/14/2017 14:00	274741		50	50
240-78035-4	04/14/2017 14:00	274741		50	50
LCS 240-274741/28-A	04/14/2017 14:00	274741		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-274962/1-A	04/17/2017 14:00	274962		50	50
LCS 240-274962/3-A	04/17/2017 14:00	274962		50	50
240-78169-8	04/17/2017 14:00	274962		50	50
240-78169-9	04/17/2017 14:00	274962		50	50
240-78088-P-1-C MS ^100	04/17/2017 14:00	274962		50	50
240-78088-P-1-D MSD ^100	04/17/2017 14:00	274962		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-274744/1-A	04/14/2017 14:00	274744		50	50
LCS 240-274744/2-A	04/14/2017 14:00	274744		50	50
240-78028-K-6-E MS	04/14/2017 14:00	274744		50	50
240-78028-K-6-F MSD	04/14/2017 14:00	274744		50	50
240-78035-2	04/14/2017 14:00	274744		50	50
240-78035-4	04/14/2017 14:00	274744		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-274967/1-A	04/17/2017 14:00	274967		50	50
LCS 240-274967/2-A	04/17/2017 14:00	274967		50	50
240-78086-F-21-E MS	04/17/2017 14:00	274967		50	50
240-78086-F-21-F MSD	04/17/2017 14:00	274967		50	50
240-78169-8	04/17/2017 14:00	274967		50	50
240-78169-9	04/17/2017 14:00	274967		50	50

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/17/2017 08:41 End Date: 04/18/2017 06:50

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na	SiO2																					
ICIS 240-274969/1	1		08:41	X	X	X	X	X																					
CALSTD 240-274969/2 IC			08:46	X	X	X	X	X																					
CALSTD 240-274969/3 IC			08:51	X	X	X	X	X																					
ICV 240-274969/4	1		08:55	X	X	X	X	X																					
ICB 240-274969/5	1		09:00	X	X	X	X	X																					
ICVL 240-274969/6	1		09:04	X	X	X	X	X																					
ZZZZZZ			09:09																										
ICSA 240-274969/8	1		09:13	X	X	X	X																						
ICSAB 240-274969/9	1		09:18	X	X	X	X																						
CCV 240-274969/10			09:22																										
CCB 240-274969/11			09:26																										
ZZZZZZ			09:31																										
ZZZZZZ			09:35																										
ZZZZZZ			09:40																										
ZZZZZZ			09:45																										
ZZZZZZ			09:49																										
ZZZZZZ			09:54																										
CCV 240-274969/18			09:58																										
CCB 240-274969/19			10:02																										
ZZZZZZ			10:08																										
ZZZZZZ			10:13																										
ZZZZZZ			10:17																										
ZZZZZZ			10:22																										
ZZZZZZ			10:26																										
ZZZZZZ			10:31																										
ZZZZZZ			10:36																										
ZZZZZZ			10:40																										
ZZZZZZ			10:44																										
ZZZZZZ			10:51																										
CCV 240-274969/30			10:56																										
CCB 240-274969/31			11:00																										
CCVL 240-274969/32			11:04																										
ICSA 240-274969/33			11:09																										
ICSAB 240-274969/34			11:13																										
CCV 240-274969/35			11:53																										
CCB 240-274969/36			11:57																										
ZZZZZZ			12:02																										
ZZZZZZ			12:06																										
ZZZZZZ			12:11																										
ZZZZZZ			12:15																										

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/17/2017 08:41 End Date: 04/18/2017 06:50

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			12:20																											
ZZZZZZ			12:24																											
ZZZZZZ			12:29																											
ZZZZZZ			12:33																											
CCV 240-274969/45			12:38																											
CCB 240-274969/46			12:42																											
ZZZZZZ			12:46																											
ZZZZZZ			12:51																											
ZZZZZZ			12:55																											
ZZZZZZ			13:00																											
ZZZZZZ			13:04																											
ZZZZZZ			13:09																											
ZZZZZZ			13:13																											
ZZZZZZ			13:18																											
ZZZZZZ			13:22																											
ZZZZZZ			13:27																											
CCV 240-274969/57	1		13:31	X	X	X	X	X																						
CCB 240-274969/58	1		13:35	X	X	X	X	X																						
ZZZZZZ			13:40																											
ZZZZZZ			13:44																											
ZZZZZZ			13:48																											
ZZZZZZ			13:53																											
MB 240-274741/1-A	1	R	13:57	X	X	X	X	X																						
LCS 240-274741/2-A	1	R	14:02	X	X	X	X	X																						
ZZZZZZ			14:06																											
240-78028-K-6-A SD ^5	5	R	14:11	X	X	X		X																						
240-78028-K-6-B MS	1	R	14:15	X	X	X		X																						
240-78028-K-6-C MSD	1	R	14:20	X	X	X		X																						
CCV 240-274969/69	1		14:24	X	X	X	X	X																						
CCB 240-274969/70	1		14:28	X	X	X	X	X																						
ZZZZZZ			14:33																											
240-78035-2	1	R	14:37	X	X	X	X	X																						
ZZZZZZ			14:42																											
ZZZZZZ			14:46																											
ZZZZZZ			14:51																											
ZZZZZZ			14:55																											
ZZZZZZ			15:00																											
ZZZZZZ			15:04																											
ZZZZZZ			15:08																											
ZZZZZZ			15:12																											

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/17/2017 08:41 End Date: 04/18/2017 06:50

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
CCV 240-274969/81	1		15:16	X	X	X	X	X																						
CCB 240-274969/82	1		15:20	X	X	X	X	X																						
ZZZZZZ			15:25																											
CCV 240-274969/84			15:30																											
CCB 240-274969/85			15:34																											
CCVL 240-274969/86	1		15:38	X	X	X	X	X																						
ZZZZZZ			15:43																											
ZZZZZZ			15:47																											
ZZZZZZ			15:52																											
ZZZZZZ			15:56																											
ZZZZZZ			16:01																											
ZZZZZZ			16:06																											
CCV 240-274969/93			16:11																											
CCB 240-274969/94			16:15																											
ZZZZZZ			16:19																											
ZZZZZZ			16:24																											
ZZZZZZ			16:29																											
ZZZZZZ			16:34																											
ZZZZZZ			16:38																											
ZZZZZZ			16:43																											
ZZZZZZ			16:47																											
ZZZZZZ			16:52																											
ZZZZZZ			16:56																											
ZZZZZZ			17:01																											
CCV 240-274969/105			17:06																											
CCB 240-274969/106			17:10																											
ZZZZZZ			17:14																											
ZZZZZZ			17:19																											
ZZZZZZ			17:23																											
ZZZZZZ			17:28																											
ZZZZZZ			17:33																											
ZZZZZZ			17:37																											
ZZZZZZ			17:42																											
ZZZZZZ			17:46																											
ZZZZZZ			17:51																											
ZZZZZZ			17:55																											
CCV 240-274969/117			18:00																											
CCB 240-274969/118			18:04																											
ZZZZZZ			18:09																											
ZZZZZZ			18:13																											

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/17/2017 08:41 End Date: 04/18/2017 06:50

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			18:18																											
ZZZZZZ			18:23																											
ZZZZZZ			18:28																											
ZZZZZZ			18:32																											
ZZZZZZ			18:37																											
ZZZZZZ			18:41																											
ZZZZZZ			18:46																											
ZZZZZZ			18:51																											
CCV 240-274969/129			18:55																											
CCB 240-274969/130			18:59																											
ZZZZZZ			19:04																											
ZZZZZZ			19:08																											
ZZZZZZ			19:13																											
ZZZZZZ			19:17																											
ZZZZZZ			19:22																											
ZZZZZZ			19:27																											
ZZZZZZ			19:31																											
ZZZZZZ			19:36																											
ZZZZZZ			19:40																											
ZZZZZZ			19:45																											
CCV 240-274969/141			19:49																											
CCB 240-274969/142			19:53																											
ZZZZZZ			19:58																											
ZZZZZZ			20:02																											
ZZZZZZ			20:07																											
ZZZZZZ			20:11																											
ZZZZZZ			20:16																											
ZZZZZZ			20:20																											
ZZZZZZ			20:24																											
ZZZZZZ			20:29																											
ZZZZZZ			20:33																											
ZZZZZZ			20:37																											
CCV 240-274969/153			20:42																											
CCB 240-274969/154			20:46																											
ZZZZZZ			20:50																											
ZZZZZZ			20:54																											
ZZZZZZ			20:59																											
ZZZZZZ			21:03																											
ZZZZZZ			21:08																											
ZZZZZZ			21:12																											

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/17/2017 08:41 End Date: 04/18/2017 06:50

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na	SiO2																					
ZZZZZZ			21:17																										
ZZZZZZ			21:22																										
ZZZZZZ			21:26																										
ZZZZZZ			21:31																										
CCV 240-274969/165			21:35																										
CCB 240-274969/166			21:40																										
ZZZZZZ			21:44																										
ZZZZZZ			21:49																										
ZZZZZZ			21:53																										
ZZZZZZ			21:58																										
ZZZZZZ			22:02																										
ZZZZZZ			22:07																										
ZZZZZZ			22:11																										
ZZZZZZ			22:16																										
ZZZZZZ			22:20																										
ZZZZZZ			22:25																										
CCV 240-274969/177			22:30																										
CCB 240-274969/178			22:34																										
ZZZZZZ			22:38																										
ZZZZZZ			22:43																										
ZZZZZZ			22:48																										
ZZZZZZ			22:52																										
ZZZZZZ			22:57																										
ZZZZZZ			23:01																										
ZZZZZZ			23:06																										
ZZZZZZ			23:10																										
ZZZZZZ			23:15																										
ZZZZZZ			23:20																										
CCV 240-274969/189			23:24																										
CCB 240-274969/190			23:28																										
ZZZZZZ			23:33																										
ZZZZZZ			23:38																										
ZZZZZZ			23:42																										
ZZZZZZ			23:47																										
ZZZZZZ			23:51																										
ZZZZZZ			23:56																										
ZZZZZZ			00:00																										
ZZZZZZ			00:04																										
ZZZZZZ			00:09																										
ZZZZZZ			00:13																										

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/17/2017 08:41 End Date: 04/18/2017 06:50

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
CCV 240-274969/201			00:18																											
CCB 240-274969/202			00:22																											
ZZZZZZ			00:27																											
ZZZZZZ			00:31																											
ZZZZZZ			00:35																											
ZZZZZZ			00:40																											
ZZZZZZ			00:44																											
ZZZZZZ			00:49																											
ZZZZZZ			00:53																											
ZZZZZZ			00:58																											
ZZZZZZ			01:02																											
ZZZZZZ			01:06																											
CCV 240-274969/213			01:11																											
CCB 240-274969/214			01:15																											
ZZZZZZ			01:20																											
ZZZZZZ			01:25																											
ZZZZZZ			01:29																											
ZZZZZZ			01:34																											
ZZZZZZ			01:38																											
ZZZZZZ			01:43																											
ZZZZZZ			01:47																											
ZZZZZZ			01:52																											
ZZZZZZ			01:57																											
ZZZZZZ			02:01																											
CCV 240-274969/225			02:06																											
CCB 240-274969/226			02:10																											
ZZZZZZ			02:15																											
ZZZZZZ			02:19																											
ZZZZZZ			02:24																											
ZZZZZZ			02:28																											
ZZZZZZ			02:33																											
ZZZZZZ			02:37																											
ZZZZZZ			02:42																											
ZZZZZZ			02:46																											
ZZZZZZ			02:51																											
ZZZZZZ			02:56																											
CCV 240-274969/237			03:00																											
CCB 240-274969/238			03:04																											
ZZZZZZ			03:08																											
ZZZZZZ			03:13																											

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/17/2017 08:41 End Date: 04/18/2017 06:50

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			03:18																											
ZZZZZZ			03:22																											
ZZZZZZ			03:26																											
ZZZZZZ			03:31																											
ZZZZZZ			03:35																											
ZZZZZZ			03:40																											
ZZZZZZ			03:45																											
ZZZZZZ			03:49																											
CCV 240-274969/249			03:54																											
CCB 240-274969/250			03:58																											
ZZZZZZ			04:03																											
ZZZZZZ			04:07																											
ZZZZZZ			04:12																											
ZZZZZZ			04:16																											
ZZZZZZ			04:21																											
ZZZZZZ			04:25																											
ZZZZZZ			04:30																											
ZZZZZZ			04:35																											
ZZZZZZ			04:39																											
ZZZZZZ			04:44																											
CCV 240-274969/261			04:48																											
CCB 240-274969/262			04:53																											
ZZZZZZ			04:57																											
ZZZZZZ			05:02																											
ZZZZZZ			05:07																											
ZZZZZZ			05:11																											
ZZZZZZ			05:16																											
ZZZZZZ			05:21																											
ZZZZZZ			05:25																											
ZZZZZZ			05:29																											
ZZZZZZ			05:34																											
ZZZZZZ			05:38																											
CCV 240-274969/273			05:43																											
CCB 240-274969/274			05:47																											
ZZZZZZ			05:51																											
ZZZZZZ			05:56																											
ZZZZZZ			06:00																											
ZZZZZZ			06:05																											
ZZZZZZ			06:10																											
ZZZZZZ			06:14																											

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/17/2017 08:41 End Date: 04/18/2017 06:50

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na	SiO2																					
ZZZZZZ			06:19																										
ZZZZZZ			06:23																										
ZZZZZZ			06:28																										
ZZZZZZ			06:32																										
CCV 240-274969/285			06:37																										
CCB 240-274969/286			06:41																										
CCV 240-274969/287			06:46																										
CCB 240-274969/288			06:50																										

Prep Types:
R = Total Recoverable

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/20/2017 08:58 End Date: 04/20/2017 22:00

Lab Sample Id	D/F	Type	Time	Analytes																												
				Ca	Fe	K	Mg	Mn	Na	SiO2																							
ICIS 240-275672/1	1		08:58	X	X	X	X	X	X	X																							
CALSTD 240-275672/2 IC			09:03	X	X	X	X	X	X	X																							
CALSTD 240-275672/3 IC			09:07	X	X	X	X	X	X	X																							
ICV 240-275672/4	1		09:12	X	X	X	X	X	X	X																							
ICB 240-275672/5	1		09:16	X	X	X	X	X	X	X																							
ICVL 240-275672/6	1		09:20	X	X	X	X	X	X	X																							
ZZZZZZ			09:24																													
ICSA 240-275672/8	1		09:29	X	X	X	X	X	X																								
ICSAB 240-275672/9	1		09:33	X	X	X	X	X	X																								
CCV 240-275672/10			09:37																													
CCB 240-275672/11			09:41																													
ZZZZZZ			09:46																													
ZZZZZZ			09:50																													
ZZZZZZ			09:54																													
ZZZZZZ			09:59																													
ZZZZZZ			10:03																													
ZZZZZZ			10:08																													
CCV 240-275672/18	1		10:12	X	X	X	X	X	X	X																							
CCB 240-275672/19	1		10:16	X	X	X	X	X	X	X																							
MB 240-275352/1-A	1	R	10:30	X	X	X	X	X	X	X																							
LCS 240-275352/2-A	1	R	10:35	X	X	X	X	X	X	X																							
ZZZZZZ			10:39																													
ZZZZZZ			10:46																													
ZZZZZZ			10:50																													
240-78241-T-9-A SD ^5	5	D	10:55	X	X	X	X	X	X	X																							
240-78241-T-9-B MS	1	D	10:59	X	X	X	X	X	X	X																							
240-78241-T-9-C MSD	1	D	11:03	X	X	X	X	X	X	X																							
ZZZZZZ			11:07																													
240-78206-2	1	R	11:12	X	X	X	X		X	X																							
CCV 240-275672/30	1		11:16	X	X	X	X	X	X	X																							
CCB 240-275672/31	1		11:20	X	X	X	X	X	X	X																							
240-78206-3	1	R	11:24	X	X	X	X	X	X	X																							
240-78206-5	1	R	11:29	X	X	X	X		X	X																							
ZZZZZZ			11:33																													
ZZZZZZ			11:38																													
ZZZZZZ			11:42																													
ZZZZZZ			11:47																													
ZZZZZZ			11:51																													
ZZZZZZ			11:56																													
ZZZZZZ			12:00																													

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/20/2017 08:58 End Date: 04/20/2017 22:00

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	K	Mg	Mn	Na	SiO2																				
ZZZZZZ			12:05																											
CCV 240-275672/42	1		12:09	X	X	X	X	X	X	X																				
CCB 240-275672/43	1		12:13	X	X	X	X	X	X	X																				
ZZZZZZ			12:18																											
ZZZZZZ			12:22																											
ZZZZZZ			12:26																											
ZZZZZZ			12:30																											
ZZZZZZ			12:34																											
ZZZZZZ			12:38																											
ZZZZZZ			12:42																											
ZZZZZZ			12:47																											
ZZZZZZ			12:51																											
ZZZZZZ			12:56																											
CCV 240-275672/54			13:00																											
CCB 240-275672/55			13:04																											
ZZZZZZ			13:08																											
ZZZZZZ			13:13																											
ZZZZZZ			13:17																											
ZZZZZZ			13:22																											
ZZZZZZ			13:26																											
ZZZZZZ			13:31																											
ZZZZZZ			13:35																											
ZZZZZZ			13:40																											
CCV 240-275672/64			13:44																											
CCB 240-275672/65			13:48																											
CCV 240-275672/66			13:53																											
CCB 240-275672/67			13:57																											
CCVL 240-275672/68	1		14:01	X	X	X	X	X	X	X																				
ICSA 240-275672/69			14:06																											
ICSAB 240-275672/70			14:10																											
ZZZZZZ			14:14																											
ZZZZZZ			14:18																											
ZZZZZZ			14:22																											
ZZZZZZ			14:27																											
ZZZZZZ			14:31																											
ZZZZZZ			14:35																											
ZZZZZZ			14:39																											
CCV 240-275672/78			14:43																											
CCB 240-275672/79			14:47																											
ZZZZZZ			14:51																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/20/2017 08:58 End Date: 04/20/2017 22:00

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	Fe	K	Mg	Mn	Na	SiO2																		
ZZZZZZ			14:56																									
ZZZZZZ			15:00																									
ZZZZZZ			15:04																									
ZZZZZZ			15:08																									
ZZZZZZ			15:12																									
ZZZZZZ			15:16																									
ZZZZZZ			15:21																									
ZZZZZZ			15:25																									
ZZZZZZ			15:30																									
CCV 240-275672/90			15:34																									
CCB 240-275672/91			15:38																									
ZZZZZZ			15:43																									
ZZZZZZ			15:47																									
ZZZZZZ			15:52																									
ZZZZZZ			15:55																									
ZZZZZZ			16:00																									
ZZZZZZ			16:04																									
CCV 240-275672/98			16:08																									
CCB 240-275672/99			16:12																									
CCVL 240-275672/100			16:17																									
ZZZZZZ			16:21																									
CCV 240-275672/102			16:26																									
CCB 240-275672/103			16:30																									
ZZZZZZ			16:34																									
ZZZZZZ			16:39																									
ZZZZZZ			16:43																									
ZZZZZZ			16:48																									
ZZZZZZ			16:52																									
ZZZZZZ			16:57																									
ZZZZZZ			17:01																									
ZZZZZZ			17:05																									
ZZZZZZ			17:10																									
ZZZZZZ			17:14																									
CCV 240-275672/114			17:19																									
CCB 240-275672/115			17:23																									
ZZZZZZ			17:27																									
ZZZZZZ			17:32																									
ZZZZZZ			17:36																									
ZZZZZZ			17:40																									
ZZZZZZ			17:45																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/20/2017 08:58 End Date: 04/20/2017 22:00

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			17:49																										
ZZZZZZ			17:53																										
ZZZZZZ			17:58																										
ZZZZZZ			18:02																										
ZZZZZZ			18:06																										
CCV 240-275672/126			18:11																										
CCB 240-275672/127			18:15																										
ZZZZZZ			18:19																										
ZZZZZZ			18:23																										
ZZZZZZ			18:28																										
ZZZZZZ			18:32																										
ZZZZZZ			18:36																										
ZZZZZZ			18:41																										
ZZZZZZ			18:45																										
ZZZZZZ			18:50																										
ZZZZZZ			18:54																										
ZZZZZZ			18:58																										
CCV 240-275672/138			19:02																										
CCB 240-275672/139			19:06																										
ZZZZZZ			19:10																										
ZZZZZZ			19:14																										
ZZZZZZ			19:19																										
ZZZZZZ			19:23																										
ZZZZZZ			19:27																										
ZZZZZZ			19:31																										
ZZZZZZ			19:36																										
ZZZZZZ			19:40																										
ZZZZZZ			19:45																										
ZZZZZZ			19:49																										
CCV 240-275672/150			19:53																										
CCB 240-275672/151			19:57																										
ZZZZZZ			20:02																										
ZZZZZZ			20:06																										
ZZZZZZ			20:10																										
ZZZZZZ			20:14																										
ZZZZZZ			20:19																										
ZZZZZZ			20:23																										
ZZZZZZ			20:27																										
ZZZZZZ			20:32																										
ZZZZZZ			20:37																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/20/2017 08:58 End Date: 04/20/2017 22:00

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			20:41																										
CCV 240-275672/162			20:46																										
CCB 240-275672/163			20:50																										
ZZZZZZ			20:54																										
ZZZZZZ			20:59																										
ZZZZZZ			21:03																										
ZZZZZZ			21:08																										
ZZZZZZ			21:12																										
ZZZZZZ			21:17																										
ZZZZZZ			21:21																										
ZZZZZZ			21:26																										
ZZZZZZ			21:30																										
ZZZZZZ			21:34																										
CCV 240-275672/174			21:39																										
CCB 240-275672/175			21:43																										
ZZZZZZ			21:47																										
ZZZZZZ			21:52																										
CCV 240-275672/178			21:56																										
CCB 240-275672/179			22:00																										

Prep Types:
D = Dissolved
R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Mn																								
ICIS 240-275816/1	1		11:09	X																								
CALSTD 240-275816/2 IC			11:14	X																								
CALSTD 240-275816/3 IC			11:18	X																								
ICV 240-275816/4	1		11:22	X																								
ICB 240-275816/5	1		11:26	X																								
ICVL 240-275816/6	1		11:31	X																								
ZZZZZZ			11:35																									
ICSA 240-275816/8	1		11:39	X																								
ICSAB 240-275816/9	1		11:44	X																								
CCV 240-275816/10			11:48																									
CCB 240-275816/11			11:52																									
ZZZZZZ			11:56																									
ZZZZZZ			12:00																									
ZZZZZZ			12:05																									
ZZZZZZ			12:09																									
ZZZZZZ			12:14																									
ZZZZZZ			12:18																									
CCV 240-275816/18			12:22																									
CCB 240-275816/19			12:26																									
ZZZZZZ			12:44																									
ZZZZZZ			12:48																									
ZZZZZZ			12:52																									
ZZZZZZ			12:57																									
ZZZZZZ			13:01																									
ZZZZZZ			13:05																									
ZZZZZZ			13:09																									
ZZZZZZ			13:13																									
ZZZZZZ			13:17																									
ZZZZZZ			13:21																									
CCV 240-275816/30			13:26																									
CCB 240-275816/31			13:30																									
ZZZZZZ			13:34																									
ZZZZZZ			13:39																									
ZZZZZZ			13:43																									
ZZZZZZ			13:47																									
ZZZZZZ			13:52																									
ZZZZZZ			13:56																									
ZZZZZZ			14:00																									
ZZZZZZ			14:05																									
ZZZZZZ			14:09																									
ZZZZZZ			14:14																									
CCV 240-275816/42			14:18																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Mn																								
CCB 240-275816/43			14:22																									
ZZZZZZ			14:27																									
ZZZZZZ			14:31																									
ZZZZZZ			14:36																									
ZZZZZZ			14:40																									
ZZZZZZ			14:45																									
ZZZZZZ			14:49																									
ZZZZZZ			14:53																									
ZZZZZZ			14:57																									
ZZZZZZ			15:01																									
ZZZZZZ			15:05																									
CCV 240-275816/54	1		15:09	X																								
CCB 240-275816/55	1		15:13	X																								
ZZZZZZ			15:18																									
ZZZZZZ			15:22																									
ZZZZZZ			15:26																									
ZZZZZZ			15:31																									
240-78206-2	5	R	15:35	X																								
240-78206-5	5	R	15:40	X																								
CCV 240-275816/62	1		15:44	X																								
CCB 240-275816/63	1		15:48	X																								
CCVL 240-275816/64	1		15:52	X																								
ICSA 240-275816/65			15:57																									
CCV 240-275816/66			16:01																									
CCB 240-275816/67			16:05																									
ICSAB 240-275816/68			16:10																									
ZZZZZZ			16:14																									
ZZZZZZ			16:18																									
ZZZZZZ			16:23																									
ZZZZZZ			16:27																									
ZZZZZZ			16:32																									
ZZZZZZ			16:36																									
ZZZZZZ			16:40																									
ZZZZZZ			16:45																									
ZZZZZZ			16:50																									
CCV 240-275816/78			16:54																									
CCB 240-275816/79			16:58																									
ZZZZZZ			17:02																									
ZZZZZZ			17:07																									
CCVL 240-275816/82			17:11																									
ZZZZZZ			17:15																									
ZZZZZZ			17:19																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Mn																								
ZZZZZZ			17:24																									
ZZZZZZ			17:28																									
ZZZZZZ			17:33																									
ZZZZZZ			17:37																									
ZZZZZZ			17:41																									
CCV 240-275816/90			17:45																									
CCB 240-275816/91			17:49																									
ZZZZZZ			17:54																									
ZZZZZZ			17:58																									
ZZZZZZ			18:02																									
ZZZZZZ			18:06																									
ZZZZZZ			18:10																									
ZZZZZZ			18:14																									
ZZZZZZ			18:18																									
ZZZZZZ			18:22																									
ZZZZZZ			18:27																									
ZZZZZZ			18:31																									
CCV 240-275816/102			18:35																									
CCB 240-275816/103			18:39																									
ZZZZZZ			18:44																									
ZZZZZZ			18:48																									
ZZZZZZ			18:52																									
ZZZZZZ			18:57																									
ZZZZZZ			19:01																									
ZZZZZZ			19:05																									
ZZZZZZ			19:10																									
ZZZZZZ			19:14																									
ZZZZZZ			19:18																									
ZZZZZZ			19:23																									
CCV 240-275816/114			19:27																									
CCB 240-275816/115			19:31																									
ZZZZZZ			19:35																									
ZZZZZZ			19:39																									
ZZZZZZ			19:44																									
ZZZZZZ			19:48																									
ZZZZZZ			19:53																									
ZZZZZZ			19:57																									
ZZZZZZ			20:01																									
ZZZZZZ			20:05																									
ZZZZZZ			20:10																									
ZZZZZZ			20:13																									
CCV 240-275816/126			20:17																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Mn																								
CCB 240-275816/127			20:21																									
ZZZZZZ			20:26																									
ZZZZZZ			20:30																									
ZZZZZZ			20:34																									
ZZZZZZ			20:38																									
ZZZZZZ			20:43																									
ZZZZZZ			20:47																									
ZZZZZZ			20:51																									
ZZZZZZ			20:56																									
ZZZZZZ			21:00																									
ZZZZZZ			21:04																									
CCV 240-275816/138			21:08																									
CCB 240-275816/139			21:12																									
ZZZZZZ			21:16																									
ZZZZZZ			21:21																									
ZZZZZZ			21:25																									
ZZZZZZ			21:30																									
ZZZZZZ			21:34																									
ZZZZZZ			21:38																									
ZZZZZZ			21:43																									
ZZZZZZ			21:47																									
ZZZZZZ			21:51																									
ZZZZZZ			21:56																									
CCV 240-275816/150			22:00																									
CCB 240-275816/151			22:04																									
ZZZZZZ			22:08																									
ZZZZZZ			22:13																									
ZZZZZZ			22:17																									
ZZZZZZ			22:22																									
ZZZZZZ			22:26																									
ZZZZZZ			22:30																									
ZZZZZZ			22:35																									
ZZZZZZ			22:40																									
ZZZZZZ			22:44																									
ZZZZZZ			22:48																									
CCV 240-275816/162			22:53																									
CCB 240-275816/163			22:57																									
ZZZZZZ			23:01																									
ZZZZZZ			23:05																									
ZZZZZZ			23:10																									
ZZZZZZ			23:14																									
ZZZZZZ			23:18																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Mn																								
ZZZZZZ			23:23																									
ZZZZZZ			23:28																									
ZZZZZZ			23:32																									
ZZZZZZ			23:37																									
ZZZZZZ			23:42																									
CCV 240-275816/174			23:46																									
CCB 240-275816/175			23:50																									
ZZZZZZ			23:54																									
ZZZZZZ			23:59																									
ZZZZZZ			00:03																									
ZZZZZZ			00:07																									
ZZZZZZ			00:12																									
ZZZZZZ			00:16																									
ZZZZZZ			00:20																									
ZZZZZZ			00:24																									
ZZZZZZ			00:29																									
ZZZZZZ			00:33																									
CCV 240-275816/186			00:37																									
CCB 240-275816/187			00:41																									
ZZZZZZ			00:45																									
ZZZZZZ			00:50																									
ZZZZZZ			00:54																									
ZZZZZZ			00:58																									
ZZZZZZ			01:02																									
ZZZZZZ			01:06																									
ZZZZZZ			01:10																									
ZZZZZZ			01:15																									
ZZZZZZ			01:19																									
ZZZZZZ			01:23																									
CCV 240-275816/198			01:28																									
CCB 240-275816/199			01:32																									
ZZZZZZ			01:36																									
ZZZZZZ			01:40																									
ZZZZZZ			01:45																									
ZZZZZZ			01:49																									
ZZZZZZ			01:53																									
ZZZZZZ			01:58																									
ZZZZZZ			02:02																									
ZZZZZZ			02:06																									
ZZZZZZ			02:11																									
ZZZZZZ			02:15																									
CCV 240-275816/210			02:19																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Mn																								
CCB 240-275816/211			02:23																									
ZZZZZZ			02:28																									
ZZZZZZ			02:32																									
ZZZZZZ			02:36																									
CCV 240-275816/215			02:41																									
CCB 240-275816/216			02:45																									

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/17/2017 10:45 End Date: 04/17/2017 18:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			10:45																									
ICIS 240-275101/2			10:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-275101/3 IC	1		10:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-275101/4 IC	1		10:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-275101/5 IC	1		11:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-275101/6 IC	1		11:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-275101/7	1		11:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-275101/8	1		11:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICVL 240-275101/9	1		11:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-275101/10	1		11:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-275101/11	1		11:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-275101/12			11:31																									
CCB 240-275101/13			11:35																									
CCV 240-275101/14			11:55																									
CCB 240-275101/15			12:00																									
ZZZZZZ			12:04																									
CCV 240-275101/17			12:08																									
CCB 240-275101/18			12:12																									
CCVL 240-275101/19			12:16																									
ZZZZZZ			12:21																									
ZZZZZZ			12:25																									
CCV 240-275101/22	1		12:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-275101/23	1		12:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
MB 240-274741/1-A	1	R	12:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 240-274741/28-A	1	R	12:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-78035-2	1	R	12:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-78035-2 SD	5	R	12:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			12:54																									
240-78035-2 MS	1	R	12:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-78035-2 MSD	1	R	13:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-78035-4	1	R	13:06	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			13:10																									
ZZZZZZ			13:14																									
CCV 240-275101/34	1		13:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-275101/35	1		13:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-275101/36	1		13:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			13:31																									
ZZZZZZ			13:36																									
ZZZZZZ			13:40																									
ZZZZZZ			13:44																									
ZZZZZZ			13:48																									
ZZZZZZ			13:52																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/17/2017 10:45 End Date: 04/17/2017 18:08

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			13:56																										
ZZZZZZ			14:00																										
ZZZZZZ			14:04																										
CCV 240-275101/46			14:09																										
CCB 240-275101/47			14:13																										
ZZZZZZ			14:17																										
CCV 240-275101/49			14:22																										
CCB 240-275101/50			14:26																										
CCVL 240-275101/51			14:30																										
ZZZZZZ			14:34																										
ZZZZZZ			14:39																										
ZZZZZZ			14:43																										
ZZZZZZ			14:47																										
ZZZZZZ			14:51																										
ZZZZZZ			14:55																										
ZZZZZZ			14:59																										
ZZZZZZ			15:03																										
ZZZZZZ			15:07																										
CCV 240-275101/61			15:11																										
CCB 240-275101/62			15:16																										
ZZZZZZ			15:20																										
ZZZZZZ			15:24																										
ZZZZZZ			15:28																										
ZZZZZZ			15:33																										
ZZZZZZ			15:37																										
ZZZZZZ			15:41																										
ZZZZZZ			15:45																										
ZZZZZZ			15:50																										
CCV 240-275101/71			15:54																										
CCB 240-275101/72			15:58																										
CCVL 240-275101/73			16:02																										
ZZZZZZ			16:07																										
ZZZZZZ			16:11																										
ZZZZZZ			16:15																										
ZZZZZZ			16:19																										
ZZZZZZ			16:23																										
ZZZZZZ			16:27																										
ZZZZZZ			16:31																										
ZZZZZZ			16:36																										
CCV 240-275101/82			16:40																										
CCB 240-275101/83			16:44																										
CCVL 240-275101/84			16:48																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/17/2017 10:45 End Date: 04/17/2017 18:08

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			16:53																											
ZZZZZZ			16:57																											
ZZZZZZ			17:01																											
ZZZZZZ			17:05																											
ZZZZZZ			17:09																											
ZZZZZZ			17:14																											
ZZZZZZ			17:18																											
ZZZZZZ			17:22																											
ZZZZZZ			17:26																											
CCV 240-275101/94			17:30																											
CCB 240-275101/95			17:35																											
ZZZZZZ			17:39																											
ZZZZZZ			17:43																											
ZZZZZZ			17:47																											
ZZZZZZ			17:51																											
ZZZZZZ			17:56																											
ZZZZZZ			18:00																											
CCV 240-275101/102			18:04																											
CCB 240-275101/103			18:08																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/18/2017 09:16 End Date: 04/18/2017 13:27

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			13:06																									
ZZZZZZ			09:16																									
ICIS 240-275207/3			09:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-275207/4 IC	1		09:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-275207/5 IC	1		09:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-275207/6 IC	1		09:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-275207/7 IC	1		09:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-275207/8	1		09:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-275207/9	1		09:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICVL 240-275207/10	1		09:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-275207/11	1		09:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-275207/12	1		09:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-275207/13			10:02																									
CCB 240-275207/14			10:07																									
ZZZZZZ			10:14																									
ZZZZZZ			10:18																									
CCV 240-275207/17			10:23																									
CCB 240-275207/18			10:27																									
ZZZZZZ			10:31																									
ZZZZZZ			10:35																									
ZZZZZZ			10:39																									
CCV 240-275207/22			10:44																									
CCB 240-275207/23			10:48																									
ZZZZZZ			10:54																									
ZZZZZZ			10:59																									
ZZZZZZ			11:03																									
ZZZZZZ			11:08																									
ZZZZZZ			11:12																									
ZZZZZZ			11:17																									
ZZZZZZ			11:21																									
ZZZZZZ			11:25																									
ZZZZZZ			11:29																									
ZZZZZZ			11:33																									
CCV 240-275207/34	1		11:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-275207/35	1		11:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			11:46																									
ZZZZZZ			11:50																									
ZZZZZZ			11:54																									
ZZZZZZ			11:58																									
MB 240-274962/1-A	1	R	12:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 240-274962/3-A	1	R	12:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			12:11																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/18/2017 09:16 End Date: 04/18/2017 13:27

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn										
240-78169-8	1	R	12:15	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X										
240-78169-9	1	R	12:19	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X										
CCV 240-275207/45	1		12:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-275207/46	1		12:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCVL 240-275207/47	1		12:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			12:36																												
ZZZZZZ			12:41																												
ZZZZZZ			12:45																												
ZZZZZZ			12:49																												
ZZZZZZ			12:53																												
ZZZZZZ			12:57																												
ZZZZZZ			13:02																												
ZZZZZZ			13:10																												
CCV 240-275207/56			13:14																												
CCB 240-275207/57			13:19																												
ZZZZZZ			13:23																												
ZZZZZZ			13:27																												

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/18/2017 14:03 End Date: 04/18/2017 22:29

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Cr	Cu	Fe	Mn	Mo	Pb	Sb	Tl	V	Zn										
ZZZZZZ			14:03																									
ICIS 240-275346/2			14:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
STD1 240-275346/3 IC	1		14:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
STD2 240-275346/4 IC	1		14:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
STD3 240-275346/5 IC	1		14:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
STD4 240-275346/6 IC	1		14:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ICV 240-275346/7	1		14:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ICB 240-275346/8	1		14:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ICVL 240-275346/9	1		14:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ICSA 240-275346/10	1		14:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ICSAB 240-275346/11	1		14:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCV 240-275346/12			14:54																									
CCB 240-275346/13			14:59																									
ZZZZZZ			15:03																									
ZZZZZZ			15:07																									
ZZZZZZ			15:11																									
ZZZZZZ			15:15																									
ZZZZZZ			15:20																									
ZZZZZZ			15:24																									
ZZZZZZ			15:28																									
CCV 240-275346/21			15:32																									
CCB 240-275346/22			15:37																									
ZZZZZZ			15:41																									
ZZZZZZ			15:45																									
ZZZZZZ			15:49																									
ZZZZZZ			15:54																									
ZZZZZZ			15:58																									
ZZZZZZ			16:02																									
ZZZZZZ			16:06																									
ZZZZZZ			16:10																									
ZZZZZZ			16:15																									
ZZZZZZ			16:19																									
CCV 240-275346/33			16:23																									
CCB 240-275346/34			16:27																									
CCVL 240-275346/35			16:32																									
ZZZZZZ			16:36																									
ZZZZZZ			16:40																									
ZZZZZZ			16:44																									
ZZZZZZ			16:49																									
ZZZZZZ			16:53																									
ZZZZZZ			16:57																									
ZZZZZZ			17:01																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/18/2017 14:03 End Date: 04/18/2017 22:29

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Cr	Cu	Fe	Mn	Mo	Pb	Sb	Tl	V	Zn										
ZZZZZZ			17:06																									
ZZZZZZ			17:10																									
CCV 240-275346/45			17:14																									
CCB 240-275346/46			17:18																									
ZZZZZZ			17:23																									
ZZZZZZ			17:27																									
ZZZZZZ			17:31																									
ZZZZZZ			17:35																									
ZZZZZZ			17:40																									
ZZZZZZ			17:44																									
ZZZZZZ			17:48																									
ZZZZZZ			17:52																									
ZZZZZZ			17:57																									
ZZZZZZ			18:01																									
CCV 240-275346/57			18:05																									
CCB 240-275346/58			18:09																									
ZZZZZZ			18:13																									
ZZZZZZ			18:18																									
ZZZZZZ			18:22																									
ZZZZZZ			18:26																									
ZZZZZZ			18:30																									
ZZZZZZ			18:35																									
ZZZZZZ			18:39																									
ZZZZZZ			18:43																									
ZZZZZZ			18:47																									
ZZZZZZ			18:52																									
CCV 240-275346/69			18:56																									
CCB 240-275346/70			19:00																									
ZZZZZZ			19:05																									
ZZZZZZ			19:09																									
ZZZZZZ			19:13																									
ZZZZZZ			19:17																									
ZZZZZZ			19:22																									
ZZZZZZ			19:26																									
ZZZZZZ			19:30																									
ZZZZZZ			19:34																									
ZZZZZZ			19:38																									
ZZZZZZ			19:43																									
CCV 240-275346/81			19:47																									
CCB 240-275346/82			19:51																									
ZZZZZZ			19:55																									
ZZZZZZ			20:00																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/18/2017 14:03 End Date: 04/18/2017 22:29

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Cr	Cu	Fe	Mn	Mo	Pb	Sb	Tl	V	Zn										
ZZZZZZ			20:04																									
ZZZZZZ			20:08																									
ZZZZZZ			20:12																									
ZZZZZZ			20:17																									
ZZZZZZ			20:21																									
ZZZZZZ			20:25																									
ZZZZZZ			20:30																									
ZZZZZZ			20:34																									
CCV 240-275346/93			20:38																									
CCB 240-275346/94			20:42																									
ZZZZZZ			20:47																									
ZZZZZZ			20:51																									
ZZZZZZ			20:55																									
ZZZZZZ			20:59																									
ZZZZZZ			21:04																									
ZZZZZZ			21:08																									
ZZZZZZ			21:12																									
ZZZZZZ			21:16																									
ZZZZZZ			21:21																									
ZZZZZZ			21:25																									
CCV 240-275346/105			21:29																									
CCB 240-275346/106			21:33																									
ZZZZZZ			21:38																									
CCV 240-275346/108	1		21:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-275346/109	1		21:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			21:50																									
240-78088-P-1-B SD ^500	500	D	21:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			21:59																									
240-78088-P-1-C MS ^100	100	D	22:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-78088-P-1-D MSD ^100	100	D	22:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCV 240-275346/115	1		22:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCB 240-275346/116	1		22:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCVL 240-275346/117	1		22:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCV 240-275346/118			22:24																									
CCB 240-275346/119			22:29																									

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/17/2017 13:08 End Date: 04/17/2017 17:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-274917/1-A			13:08	X																								
IC 240-274917/2-A			13:10	X																								
IC 240-274917/3-A			13:11	X																								
IC 240-274917/4-A			13:13	X																								
IC 240-274917/5-A			13:15	X																								
IC 240-274917/6-A			13:18	X																								
ICV 240-274917/7-A	1		13:21	X																								
ICB 240-274917/8-A	1		13:23	X																								
CRA 240-274917/9-A	1		13:26	X																								
CCV 240-274917/10-A			13:28																									
CCB 240-274917/11-A			13:29																									
ZZZZZZ			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:42																									
ZZZZZZ			13:44																									
CCV 240-274917/10-A			13:45																									
CCB 240-274917/11-A			13:47																									
ZZZZZZ			13:49																									
ZZZZZZ			13:51																									
ZZZZZZ			13:53																									
ZZZZZZ			13:55																									
ZZZZZZ			13:58																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
ZZZZZZ			14:08																									
CRA 240-274917/9-A			14:10																									
CCV 240-274917/10-A			14:12																									
CCB 240-274917/11-A			14:14																									
ZZZZZZ			14:17																									
ZZZZZZ			14:21																									
ZZZZZZ			14:23																									
ZZZZZZ			14:25																									
ZZZZZZ			14:27																									
ZZZZZZ			14:29																									
ZZZZZZ			14:31																									
ZZZZZZ			14:33																									
ZZZZZZ			14:35																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/17/2017 13:08 End Date: 04/17/2017 17:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			14:36																									
CCV 240-274917/10-A	1		14:38	X																								
CCB 240-274917/11-A	1		14:40	X																								
ZZZZZZ			14:43																									
ZZZZZZ			14:45																									
ZZZZZZ			14:47																									
ZZZZZZ			14:48																									
MB 240-274744/1-A	1	T	14:50	X																								
LCS 240-274744/2-A	1	T	14:52	X																								
ZZZZZZ			14:54																									
240-78028-K-6-E MS	1	T	14:57	X																								
240-78028-K-6-F MSD	1	T	14:59	X																								
ZZZZZZ			15:01																									
CCV 240-274917/10-A	1		15:03	X																								
CCB 240-274917/11-A	1		15:05	X																								
ZZZZZZ			15:07																									
ZZZZZZ			15:09																									
ZZZZZZ			15:11																									
ZZZZZZ			15:13																									
ZZZZZZ			15:15																									
ZZZZZZ			15:17																									
ZZZZZZ			15:19																									
ZZZZZZ			15:21																									
ZZZZZZ			15:23																									
ZZZZZZ			15:25																									
CCV 240-274917/10-A	1		15:26	X																								
CCB 240-274917/11-A	1		15:28	X																								
ZZZZZZ			15:31																									
ZZZZZZ			15:33																									
ZZZZZZ			15:35																									
ZZZZZZ			15:37																									
240-78035-2	1	T	15:39	X																								
240-78035-4	1	T	15:40	X																								
ZZZZZZ			15:42																									
ZZZZZZ			15:44																									
ZZZZZZ			15:46																									
ZZZZZZ			15:48																									
CCV 240-274917/10-A	1		15:50	X																								
CCB 240-274917/11-A	1		15:52	X																								
ZZZZZZ			15:55																									
ZZZZZZ			15:56																									
ZZZZZZ			15:59																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/17/2017 13:08 End Date: 04/17/2017 17:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			16:01																									
ZZZZZZ			16:03																									
ZZZZZZ			16:06																									
ZZZZZZ			16:07																									
ZZZZZZ			16:09																									
ZZZZZZ			16:11																									
ZZZZZZ			16:13																									
CCV 240-274917/10-A			16:16																									
CCB 240-274917/11-A			16:18																									
ZZZZZZ			16:20																									
ZZZZZZ			16:22																									
ZZZZZZ			16:24																									
ZZZZZZ			16:26																									
ZZZZZZ			16:28																									
ZZZZZZ			16:30																									
ZZZZZZ			16:32																									
ZZZZZZ			16:34																									
ZZZZZZ			16:36																									
ZZZZZZ			16:38																									
CCV 240-274917/10-A			16:40																									
CCB 240-274917/11-A			16:42																									
ZZZZZZ			16:44																									
ZZZZZZ			16:46																									
ZZZZZZ			16:48																									
ZZZZZZ			16:50																									
ZZZZZZ			16:52																									
ZZZZZZ			16:54																									
ZZZZZZ			16:56																									
ZZZZZZ			16:58																									
ZZZZZZ			17:00																									
ZZZZZZ			17:02																									
CCV 240-274917/10-A			17:04																									
CCB 240-274917/11-A			17:06																									
ZZZZZZ			17:08																									
ZZZZZZ			17:10																									
ZZZZZZ			17:12																									
ZZZZZZ			17:14																									
ZZZZZZ			17:16																									
ZZZZZZ			17:18																									
ZZZZZZ			17:20																									
ZZZZZZ			17:22																									
ZZZZZZ			17:24																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/17/2017 13:08 End Date: 04/17/2017 17:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			17:26																									
CCV 240-274917/10-A			17:28																									
CCB 240-274917/11-A			17:30																									
ZZZZZZ			17:32																									
ZZZZZZ			17:34																									
CCV 240-274917/10-A			17:36																									
CCB 240-274917/11-A			17:38																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/18/2017 10:22 End Date: 04/18/2017 12:33

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-274917/1-A			10:22	X																								
IC 240-274917/2-A			10:24	X																								
IC 240-274917/3-A			10:26	X																								
IC 240-274917/4-A			10:28	X																								
IC 240-274917/5-A			10:30	X																								
IC 240-274917/6-A			10:32	X																								
ICV 240-274917/7-A	1		10:35	X																								
ICB 240-274917/8-A	1		10:37	X																								
CRA 240-274917/9-A	1		10:40	X																								
CCV 240-274917/10-A			10:41																									
CCB 240-274917/11-A			10:43																									
CCV 240-274917/10-A	1		10:46	X																								
CCB 240-274917/11-A	1		10:48	X																								
MB 240-274967/1-A	1	T	10:58	X																								
LCS 240-274967/2-A	1	T	11:00	X																								
ZZZZZZ			11:02																									
ZZZZZZ			11:05																									
ZZZZZZ			11:07																									
ZZZZZZ			11:09																									
240-78086-F-21-E MS	1	T	11:10	X																								
240-78086-F-21-F MSD	1	T	11:12	X																								
ZZZZZZ			11:14																									
ZZZZZZ			11:17																									
CCV 240-274917/10-A	1		11:19	X																								
CCB 240-274917/11-A	1		11:20	X																								
ZZZZZZ			11:23																									
240-78169-8	1	T	11:25	X																								
240-78169-9	1	T	11:27	X																								
ZZZZZZ			11:29																									
ZZZZZZ			11:31																									
ZZZZZZ			11:33																									
ZZZZZZ			11:35																									
ZZZZZZ			11:36																									
ZZZZZZ			11:39																									
ZZZZZZ			11:41																									
CCV 240-274917/10-A	1		11:43	X																								
CCB 240-274917/11-A	1		11:45	X																								
ZZZZZZ			11:48																									
ZZZZZZ			11:50																									
ZZZZZZ			11:51																									
ZZZZZZ			11:53																									
ZZZZZZ			11:55																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/18/2017 10:22 End Date: 04/18/2017 12:33

Lab Sample Id	D/F	Type	Time	Analytes																									
				Hg																									
ZZZZZZ			11:57																										
ZZZZZZ			11:59																										
ZZZZZZ			12:01																										
ZZZZZZ			12:03																										
ZZZZZZ			12:05																										
CCV 240-274917/10-A			12:07																										
CCB 240-274917/11-A			12:09																										
ZZZZZZ			12:11																										
ZZZZZZ			12:13																										
ZZZZZZ			12:15																										
ZZZZZZ			12:17																										
ZZZZZZ			12:19																										
ZZZZZZ			12:21																										
ZZZZZZ			12:23																										
ZZZZZZ			12:25																										
ZZZZZZ			12:27																										
ZZZZZZ			12:29																										
CCV 240-274917/10-A			12:31																										
CCB 240-274917/11-A			12:33																										

Prep Types:
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/17/2017 End Date: 04/17/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-275101/3 I	10:53	97		99		95		98		96	
STD2 240-275101/4 I	10:57	93		93		94		91		89	
STD3 240-275101/5 I	11:01	92		96		92		89		88	
STD4 240-275101/6 I	11:06	89		95		85		96		92	
ICV 240-275101/7	11:10	97		101		99		96		97	
ICB 240-275101/8	11:14	95		104		88		103		103	
ICVL 240-275101/9	11:18	100		101		101		100		100	
ICSA 240-275101/10	11:23	88		89		88		86		85	
ICSAB 240-275101/11	11:27	86		89		87		86		86	
CCV 240-275101/22	12:29	101		103		103		99		99	
CCB 240-275101/23	12:33	102		103		102		103		101	
MB 240-274741/1-A	12:38	96		97		101		97		93	
LCS 240-274741/28-A	12:42	86		90		92		90		85	
240-78035-2	12:46	88		93		94		93		89	
240-78035-2 SD	12:50	97		99		102		101		96	
240-78035-2 MS	12:58	81		86		88		86		80	
240-78035-2 MSD	13:02	80		84		86		84		79	
240-78035-4	13:06	86		85		91		89		83	
CCV 240-275101/34	13:19	90		93		92		92		88	
CCB 240-275101/35	13:23	78		90		71		94		90	
CCVL 240-275101/36	13:27	90		91		89		93		88	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/17/2017 End Date: 04/17/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-275101/3 I	10:53	98		98		98					
STD2 240-275101/4 I	10:57	92		94		91					
STD3 240-275101/5 I	11:01	94		93		88					
STD4 240-275101/6 I	11:06	96		96		97					
ICV 240-275101/7	11:10	98		98		96					
ICB 240-275101/8	11:14	101		100		100					
ICVL 240-275101/9	11:18	98		97		97					
ICSA 240-275101/10	11:23	88		87		88					
ICSAB 240-275101/11	11:27	89		89		89					
CCV 240-275101/22	12:29	100		100		96					
CCB 240-275101/23	12:33	100		100		98					
MB 240-274741/1-A	12:38	96		97		106					
LCS 240-274741/28-A	12:42	91		92		93					
240-78035-2	12:46	95		96		96					
240-78035-2 SD	12:50	98		100		99					
240-78035-2 MS	12:58	89		90		90					
240-78035-2 MSD	13:02	89		89		88					
240-78035-4	13:06	91		92		94					
CCV 240-275101/34	13:19	95		95		91					
CCB 240-275101/35	13:23	93		95		95					
CCVL 240-275101/36	13:27	93		93		95					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/18/2017 End Date: 04/18/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-275207/4 I	09:24	101		98		99		97		98	
STD2 240-275207/5 I	09:29	99		98		100		94		97	
STD3 240-275207/6 I	09:33	99		98		101		93		96	
STD4 240-275207/7 I	09:37	104		102		103		103		102	
ICV 240-275207/8	09:41	104		103		105		99		101	
ICB 240-275207/9	09:46	110		107		110		108		107	
ICVL 240-275207/10	09:50	112		111		113		110		110	
ICSA 240-275207/11	09:54	104		103		106		97		100	
ICSAB 240-275207/12	09:58	105		101		104		96		99	
CCV 240-275207/34	11:37	83		82		87		84		84	
CCB 240-275207/35	11:42	91		87		92		92		91	
MB 240-274962/1-A	12:03	83		81		87		86		85	
LCS 240-274962/3-A	12:07	76		75		81		78		77	
240-78169-8	12:15	78		74		83		74		75	
240-78169-9	12:19	83		81		90		82		82	
CCV 240-275207/45	12:24	88		90		95		91		91	
CCB 240-275207/46	12:28	90		91		95		96		94	
CCVL 240-275207/47	12:32	91		91		95		94		94	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/18/2017 End Date: 04/18/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-275207/4 I	09:24	100		100		100					
STD2 240-275207/5 I	09:29	101		100		94					
STD3 240-275207/6 I	09:33	99		99		95					
STD4 240-275207/7 I	09:37	105		103		102					
ICV 240-275207/8	09:41	102		103		98					
ICB 240-275207/9	09:46	106		107		104					
ICVL 240-275207/10	09:50	109		108		108					
ICSA 240-275207/11	09:54	102		101		99					
ICSAB 240-275207/12	09:58	101		100		96					
CCV 240-275207/34	11:37	91		92		87					
CCB 240-275207/35	11:42	93		94		94					
MB 240-274962/1-A	12:03	91		91		91					
LCS 240-274962/3-A	12:07	86		86		85					
240-78169-8	12:15	84		84		79					
240-78169-9	12:19	89		90		87					
CCV 240-275207/45	12:24	95		95		92					
CCB 240-275207/46	12:28	96		97		95					
CCVL 240-275207/47	12:32	95		96		94					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/18/2017 End Date: 04/18/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-275346/3 I	14:11	100		101		102		100		102	
STD2 240-275346/4 I	14:15	99		101		102		97		99	
STD3 240-275346/5 I	14:20	98		97		100		92		96	
STD4 240-275346/6 I	14:24	97		100		97		98		98	
ICV 240-275346/7	14:28	95		96		96		92		94	
ICB 240-275346/8	14:32	97		96		96		95		95	
ICVL 240-275346/9	14:37	96		96		96		95		94	
ICSA 240-275346/10	14:41	97		92		92		87		89	
ICSAB 240-275346/11	14:50	91		87		88		83		85	
CCV 240-275346/108	21:42	73		65		73		65		64	
CCB 240-275346/109	21:46	76		64		76		65		63	
240-78088-P-1-B SD	21:55	78		73		82		71		70	
240-78088-P-1-C MS	22:03	66		70		75		66		66	
240-78088-P-1-D MSD	22:07	66		71		75		66		66	
CCV 240-275346/115	22:12	75		72		74		70		68	
CCB 240-275346/116	22:16	78		72		75		73		71	
CCVL 240-275346/117	22:20	78		72		76		74		72	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/18/2017 End Date: 04/18/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-275346/3 I	14:11	102		101		102					
STD2 240-275346/4 I	14:15	103		103		99					
STD3 240-275346/5 I	14:20	99		98		94					
STD4 240-275346/6 I	14:24	99		98		101					
ICV 240-275346/7	14:28	97		96		93					
ICB 240-275346/8	14:32	93		94		96					
ICVL 240-275346/9	14:37	96		95		96					
ICSA 240-275346/10	14:41	92		91		90					
ICSAB 240-275346/11	14:50	83		83		86					
CCV 240-275346/108	21:42	62		62		66					
CCB 240-275346/109	21:46	61		60		67					
240-78088-P-1-B SD	21:55	68		67		73					
240-78088-P-1-C MS	22:03	66		65		67					
240-78088-P-1-D MSD	22:07	66		65		66					
CCV 240-275346/115	22:12	67		66		70					
CCB 240-275346/116	22:16	69		67		74					
CCVL 240-275346/117	22:20	69		68		76					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274741 Batch Start Date: 04/14/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 04/14/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00069	MTICP1 00062	MTICP2A 00070	MTTMHCL 00151
MB 240-274741/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-274741/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-78028-K-6 MS		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-78028-K-6 MSD		3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-78035-P-2	MRC-MW12B-041217	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00115
MB 240-274741/1		3005A, 6010C		1 mL
LCS 240-274741/2		3005A, 6010C		1 mL
240-78028-K-6 MS		3005A, 6010C	R	1 mL
240-78028-K-6 MSD		3005A, 6010C	R	1 mL
240-78035-P-2	MRC-MW12B-041217	3005A, 6010C	R	1 mL

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB1
Pipette ID	MP1 mp3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275352 Batch Start Date: 04/19/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 04/19/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00069	MTICP1 00062	MTICP2A 00070	MTTMHCL 00152
MB 240-275352/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-275352/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-78241-T-9 MS		3005A, 6010C	D	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-78241-T-9 MSD		3005A, 6010C	D	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-78206-O-2	MRC-MW27A-041717	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-78206-O-3	MRC-MW27B-041717	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-78206-O-5	MRC-MW24A-041717	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00115					
MB 240-275352/1		3005A, 6010C		1 mL					
LCS 240-275352/2		3005A, 6010C		1 mL					
240-78241-T-9 MS		3005A, 6010C	D	1 mL					
240-78241-T-9 MSD		3005A, 6010C	D	1 mL					
240-78206-O-2	MRC-MW27A-041717	3005A, 6010C	R	1 mL					
240-78206-O-3	MRC-MW27B-041717	3005A, 6010C	R	1 mL					
240-78206-O-5	MRC-MW24A-041717	3005A, 6010C	R	1 mL					

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB3
Pipette ID	MP1-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274741 Batch Start Date: 04/14/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 04/14/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00030	MTICPMSA 00031	MTICPMSB 00031	MTTMHCL 00151
MB 240-274741/1		3005A, 6020A		50 mL	50 mL				2.5 mL
240-78035-P-2	MRC-MW12B-041217	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-78035-P-2 MS	MRC-MW12B-041217	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-78035-P-2 MSD	MRC-MW12B-041217	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-78035-F-4	MRC-MW12C-041217	3005A, 6020A	R	50 mL	50 mL				2.5 mL
LCS 240-274741/28		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00115					
MB 240-274741/1		3005A, 6020A		1 mL					
240-78035-P-2	MRC-MW12B-041217	3005A, 6020A	R	1 mL					
240-78035-P-2 MS	MRC-MW12B-041217	3005A, 6020A	R	1 mL					
240-78035-P-2 MSD	MRC-MW12B-041217	3005A, 6020A	R	1 mL					
240-78035-F-4	MRC-MW12C-041217	3005A, 6020A	R	1 mL					
LCS 240-274741/28		3005A, 6020A		1 mL					

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB1
Pipette ID	MP1 mp3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274962 Batch Start Date: 04/17/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 04/17/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00030	MTICPMSA 00031	MTICPMSB 00031	MTTMHCL 00151
MB 240-274962/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-274962/3		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-78169-F-8	MRC-MW70A-041417	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-78169-F-9	MRC-MW70B-041417	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-78088-P-1 MS		3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-78088-P-1 MSD		3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00115					
MB 240-274962/1		3005A, 6020A		1 mL					
LCS 240-274962/3		3005A, 6020A		1 mL					
240-78169-F-8	MRC-MW70A-041417	3005A, 6020A	R	1 mL					
240-78169-F-9	MRC-MW70B-041417	3005A, 6020A	R	1 mL					
240-78088-P-1 MS		3005A, 6020A	D	1 mL					
240-78088-P-1 MSD		3005A, 6020A	D	1 mL					

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB3
Pipette ID	MP1-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274744 Batch Start Date: 04/14/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 04/14/17 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00042	MTHGCALW 01480	MTKMN04W 00128
MB 240-274744/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-274744/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-78028-K-6 MS		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-78028-K-6 MSD		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-78035-P-2	MRC-MW12B-041217	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-78035-F-4	MRC-MW12C-041217	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00115					
MB 240-274744/1		7470A, 7470A		1.25 mL					
LCS 240-274744/2		7470A, 7470A		1.25 mL					
240-78028-K-6 MS		7470A, 7470A	T	1.25 mL					
240-78028-K-6 MSD		7470A, 7470A	T	1.25 mL					
240-78035-P-2	MRC-MW12B-041217	7470A, 7470A	T	1.25 mL					
240-78035-F-4	MRC-MW12C-041217	7470A, 7470A	T	1.25 mL					

Batch Notes	
Batch Comment	take out temps within range
Hot Block ID	C1
Pipette ID	MP2-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274917 Batch Start Date: 04/17/17 09:00 Batch Analyst: Nguyen, Diem

Batch Method: 7470A Batch End Date: 04/17/17 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00042	MTHGCALW 01481	MTHgICV_00001 00161
ICV 240-274917/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-274917/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-274917/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-274917/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-274917/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00128	MTTMHNO3 00115				
ICV 240-274917/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-274917/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-274917/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-274917/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-274917/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Hot Block ID	C2
Pipette ID	A4, MP1, MP2
Digestion Tube/Cup ID	1610138

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274967 Batch Start Date: 04/17/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 04/17/17 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00042	MTHGCALW 01481	MTKMN04W 00128
MB 240-274967/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-274967/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-78086-F-21 MS		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-78086-F-21 MSD		7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-78169-F-8	MRC-MW70A-041417	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-78169-F-9	MRC-MW70B-041417	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00115					
MB 240-274967/1		7470A, 7470A		1.25 mL					
LCS 240-274967/2		7470A, 7470A		1.25 mL					
240-78086-F-21 MS		7470A, 7470A	T	1.25 mL					
240-78086-F-21 MSD		7470A, 7470A	T	1.25 mL					
240-78169-F-8	MRC-MW70A-041417	7470A, 7470A	T	1.25 mL					
240-78169-F-9	MRC-MW70B-041417	7470A, 7470A	T	1.25 mL					

Batch Notes	
Batch Comment	take out temps within range
Hot Block ID	B1
Pipette ID	MP2-MP3
Digestion Tube/Cup ID	1610138

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW12B-041217 Lab Sample ID: 240-78035-2

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG ID.:

Matrix: Water Date Sampled: 04/12/2017 10:35

Reporting Basis: WET Date Received: 04/13/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	9500	5000	710	ug/L			1	6010C
7440-09-7	Potassium	3000	5000	70	ug/L	J		1	6010C
7439-95-4	Magnesium	8000	5000	230	ug/L			1	6010C
7440-23-5	Sodium	16000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	11000	1100	140	ug/L			1	6010C
7440-36-0	Antimony	0.68	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	0.69	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	140	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	38	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.30	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.36	2.0	0.36	ug/L	U		1	6020A
7439-89-6	Iron	22000	100	5.3	ug/L		B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7439-96-5	Manganese	3100	5.0	0.25	ug/L		B	1	6020A
7440-02-0	Nickel	56	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.37	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.54	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	54	20	6.2	ug/L		B	1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

Sample Report

Sample MRC-MW12B-041217

Iron: 22,000 ug/L

Sample Table

Sample Name	240-78035-p-2-a
Data File Name	026SMPL.d
Data Path Name	D:\Analytical Runs\I10041717B.b
Acq Date Time	2017-04-17T12:46:12-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	6	2	NoGas	41.535	41.535	1.45	1363430	0.00	10000	
Be	9	45	2	NoGas	0.185	0.185	33.42	1422	0.01	2000	
B	11	45	2	NoGas	20.679	20.679	1.86	129436	0.02	300	
Na	23	45	1	He	15638.777	15638.777	3.50	12442319	0.13	500000	
Mg	24	45	1	He	7745.940	7745.940	4.04	3098134	0.25	500000	
Al	27	45	1	He	17.817	17.817	20.27	3126	0.57	200000	
K	39	45	1	He	2755.854	2755.854	3.34	811893	0.34	500000	
Ca	44	45	1	He	8954.448	8954.448	4.90	134723	6.65	500000	
Ti	47	45	1	He	0.620	0.620	37.03	67	0.93	2500	
V	51	45	1	He	0.246	0.246	74.08	877	0.03	10000	
Cr	52	45	1	He	0.298	0.298	43.48	1410	0.02	10000	
Mn	55	45	1	He	3119.374	3119.374	5.18	7145678	0.04	10000	
Fe	56	45	1	He	22241.818	22241.818	4.20	68113571	0.03	200000	
Co	59	45	1	He	38.038	38.038	5.34	221012	0.02	5000	
Ni	60	103	1	He	56.423	56.423	5.08	89457	0.06	10000	
Cu	63	103	1	He	0.329	0.329	39.83	2226	0.01	10000	
Zn	66	45	1	He	53.620	53.620	3.39	40012	0.13	10000	
As	75	115	1	He	0.694	0.694	12.34	369	0.19	10000	
Se	78	115	1	He	0.538	0.538	11.92	33	1.63	10000	
Sr	88	103	1	He	33.412	33.412	5.14	95454	0.04	10000	
Mo	95	103	1	He	0.203	0.203	27.52	744	0.03	2000	
Ag	107	103	1	He	0.014	0.014	5.60	154	0.01	300	
Cd	111	115	1	He	0.147	0.147	54.38	174	0.08	4000	
Sn	118	159	1	He	2.469	2.469	9.82	7131	0.03	2000	
Sb	123	115	1	He	0.681	0.681	12.40	1989	0.03	200	
Ba	137	115	1	He	139.153	139.153	4.99	151872	0.09	10000	
W	182	159	1	He	0.837	0.837	5.55	8402	0.01	2500	
Tl	205	165	1	He	0.132	0.132	25.20	2947	0.00	2000	
Pb	208	165	1	He	0.366	0.366	30.64	10540	0.00	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	4151058	1.89	4712988	88.08	60	120	
Sc	45	1	He	652376	4.14	699107	93.32	60	120	
Sc	45	2	NoGas	12625463	0.90	13467091	93.75	60	120	
Rh	103	1	He	3120706	4.32	3354494	93.03	60	120	
In	115	1	He	1318466	4.97	1484552	88.81	60	120	
Tb	159	1	He	4996023	5.28	5257203	95.03	60	120	
Ho	165	1	He	5101718	4.02	5334458	95.64	60	120	
Bi	209	1	He	3936603	3.31	4086461	96.33	60	120	

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG No.:

Project: MRC 2017 GW

Client Sample ID	Lab Sample ID
MRC-MW12B-041217	240-78035-2
MRC-MW27A-041717	240-78206-2
MRC-MW27B-041717	240-78206-3
MRC-MW24A-041717	240-78206-5

Comments:

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Analyst: LCN Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274398

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	13:48	Chloride	50.8	50.0	102	90-110		WCICLCS_00603
			Sulfate	51.8	50.0	104	90-110		WCICLCS_00603
11	ICB	14:08	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Analyst: LCN Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274399

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	13:48	Nitrite as N	2.54	2.50	101	90-110		WCICLCS_00603
			Nitrate as N	2.56	2.50	103	90-110		WCICLCS_00603
11	ICB	14:08	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Analyst: LCN Batch Start Date: 04/13/2017

Reporting Units: mg/L Analytical Batch No.: 274609

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:24	Chloride	49.6	50.0	99	90-110		WCICCCV_00766
			Sulfate	51.0	50.0	102	90-110		WCICCCV_00766
2	CCB	12:44	Chloride	0.41				U	
			Sulfate	0.13				U	
13	CCV	17:04	Chloride	49.4	50.0	99	90-110		WCICCCV_00766
			Sulfate	51.0	50.0	102	90-110		WCICCCV_00766
14	CCB	17:24	Chloride	0.41				U	
			Sulfate	0.13				U	
25	CCV	21:05	Sulfate	49.9	50.0	100	90-110		WCICCCV_00766
26	CCB	21:25	Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Analyst: LCN Batch Start Date: 04/13/2017

Reporting Units: mg/L Analytical Batch No.: 274610

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:24	Nitrite as N	2.52	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.51	2.50	101	90-110		WCICCCV_00766
2	CCB	12:44	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
13	CCV	17:04	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.49	2.50	100	90-110		WCICCCV_00766
14	CCB	17:24	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Analyst: LKG Batch Start Date: 04/18/2017

Reporting Units: mg/L Analytical Batch No.: 275205

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:41	Chloride	49.6	50.0	99	90-110		WCICCCV_00766
			Sulfate	50.6	50.0	101	90-110		WCICCCV_00766
2	CCB	16:01	Chloride	0.41				U	
			Sulfate	0.13				U	
13	CCV	19:42	Chloride	49.8	50.0	100	90-110		WCICCCV_00766
			Sulfate	50.8	50.0	102	90-110		WCICCCV_00766
14	CCB	20:02	Chloride	0.41				U	
			Sulfate	0.13				U	
25	CCV	23:43	Chloride	49.9	50.0	100	90-110		WCICCCV_00766
			Sulfate	51.0	50.0	102	90-110		WCICCCV_00766
26	CCB	00:03	Chloride	0.41				U	
			Sulfate	0.13				U	
37	CCV	03:44	Chloride	49.6	50.0	99	90-110		WCICCCV_00766
			Sulfate	50.7	50.0	101	90-110		WCICCCV_00766
38	CCB	04:04	Chloride	0.41				U	
			Sulfate	0.13				U	
49	CCV	07:45	Chloride	49.8	50.0	100	90-110		WCICCCV_00766
			Sulfate	50.7	50.0	101	90-110		WCICCCV_00766
50	CCB	08:05	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Analyst: LKG Batch Start Date: 04/18/2017

Reporting Units: mg/L Analytical Batch No.: 275206

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
25	CCV	23:43	Nitrite as N	2.55	2.50	102	90-110		WCICCCV_00766
			Nitrate as N	2.51	2.50	101	90-110		WCICCCV_00766
26	CCB	00:03	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
37	CCV	03:44	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.51	2.50	100	90-110		WCICCCV_00766
38	CCB	04:04	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
49	CCV	07:45	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.51	2.50	100	90-110		WCICCCV_00766
50	CCB	08:05	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Analyst: JWW Batch Start Date: 03/14/2017

Reporting Units: mg/L Analytical Batch No.: 270540

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
11	ICV	13:18	Orthophosphate as P	0.551	0.509	108	90-110		WCWIBBYNUTRIE_00072

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Analyst: BLW Batch Start Date: 04/13/2017

Reporting Units: mg/L Analytical Batch No.: 274655

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:20	Orthophosphate as P	0.510	0.500	102	90-110		WCPhos 1ppm_00024
2	CCB	13:21	Orthophosphate as P	0.0050				U	
8	CCV	13:27	Orthophosphate as P	0.511	0.500	102	90-110		WCPhos 1ppm_00024
9	CCB	13:28	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Analyst: BLW Batch Start Date: 04/18/2017

Reporting Units: mg/L Analytical Batch No.: 275212

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	14:14	Orthophosphate as P	0.519	0.500	104	90-110		WCPhos 1ppm_00024
2	CCB	14:14	Orthophosphate as P	0.0050				U	
12	CCV	14:14	Orthophosphate as P	0.519	0.500	104	90-110		WCPhos 1ppm_00024
13	CCB	14:14	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Analyst: TPH Batch Start Date: 04/17/2017

Reporting Units: mg/L Analytical Batch No.: 274970

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
2	CCV	09:08	Dissolved Organic Carbon	26.4	25.0	106	90-110		WC TOC CCV_00352
3	CCB	09:15	Dissolved Organic Carbon	0.080				U	
11	CCVL	11:03	Dissolved Organic Carbon	5.22	5.00	104	90-110		WC TOC CCVL_00148
12	CCV	11:12	Dissolved Organic Carbon	26.1	25.0	105	90-110		WC TOC CCV_00352
13	CCB	11:20	Dissolved Organic Carbon	0.080				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Analyst: TPH Batch Start Date: 04/26/2017

Reporting Units: mg/L Analytical Batch No.: 276327

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
2	CCV	05:37	Dissolved Organic Carbon	25.8	25.0	103	90-110		WC TOC CCV_00353
3	CCB	05:44	Dissolved Organic Carbon	0.080				U	
14	CCVL	08:55	Dissolved Organic Carbon	5.14	5.00	103	90-110		WC TOC CCVL_00149
15	CCB	09:04	Dissolved Organic Carbon	0.080				U	
19	CCV	10:34	Dissolved Organic Carbon	25.1	25.0	100	90-110		WC TOC CCV_00353

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 275731 Date: 04/20/2017 12:12							
2320B-1997	MB 240-275731/5	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 276080 Date: 04/24/2017 09:08							
2320B-1997	MB 240-276080/4	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 274609 Date: 04/13/2017 13:04							
300.0	MB 240-274609/3	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-274609/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 274610 Date: 04/13/2017 13:04							
300.0	MB 240-274610/3	Nitrite as N	0.038	U	mg/L	0.10	1
300.0	MB 240-274610/3	Nitrate as N	0.035	U	mg/L	0.10	1
Batch ID: 275205 Date: 04/18/2017 16:21							
300.0	MB 240-275205/3	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-275205/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 275205 Date: 04/19/2017 00:23							
300.0	MB 240-275205/27	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-275205/27	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 275206 Date: 04/19/2017 00:23							
300.0	MB 240-275206/27	Nitrite as N	0.038	U	mg/L	0.10	1
300.0	MB 240-275206/27	Nitrate as N	0.035	U	mg/L	0.10	1
Batch ID: 275985 Date: 04/24/2017 14:07 Prep Batch: 275977 Date: 04/24/2017 08:00							
4500 NH3 C-1997	MB 240-275977/1-A	Ammonia	0.87	U	mg/L	2.0	1
Batch ID: 274655 Date: 04/13/2017 13:22							
4500 P E-1999	MB 240-274655/3	Orthophosphate as P	0.0050	U	mg/L	0.10	1
Batch ID: 275212 Date: 04/18/2017 14:14							
4500 P E-1999	MB 240-275212/3	Orthophosphate as P	0.0050	U	mg/L	0.10	1
Batch ID: 274970 Date: 04/17/2017 09:26							
9060	MB 240-274970/4	Dissolved Organic Carbon	0.080	U	mg/L	1.0	1
Batch ID: 276327 Date: 04/26/2017 05:55							
9060	MB 240-276327/4	Dissolved Organic Carbon	0.080	U	mg/L	1.0	1
Batch ID: 275213 Date: 04/18/2017 14:14							
SM 2540C	MB 240-275213/1	Total Dissolved Solids	7.4	U	mg/L	10	1
Batch ID: 275589 Date: 04/20/2017 14:13							
SM 2540C	MB 240-275589/1	Total Dissolved Solids	7.4	U	mg/L	10	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 275205 Date: 04/18/2017 17:21											
300.0	240-78063-A-1	Chloride	35		mg/L						
300.0	240-78063-A-1 MS	Chloride	85.8		mg/L	50.0	101	80-120			
300.0	240-78063-A-1	Sulfate	550		mg/L						
300.0	240-78063-A-1 MS	Sulfate	565		mg/L	50.0	37	80-120			4
Batch ID: 275205 Date: 04/19/2017 01:23											
300.0	190-13258-B-4	Chloride	76		mg/L						
300.0	190-13258-B-4 MS	Chloride	124		mg/L	50.0	95	80-120			
300.0	190-13258-B-4	Sulfate	1800		mg/L						
300.0	190-13258-B-4 MS	Sulfate	1730		mg/L	50.0	-74	80-120			4
Batch ID: 275206 Date: 04/19/2017 01:23											
300.0	190-13258-B-4	Nitrite as N	0.38	U	mg/L						
300.0	190-13258-B-4 MS	Nitrite as N	2.66		mg/L	2.50	106	80-120			
300.0	190-13258-B-4	Nitrate as N	0.35	U	mg/L						
300.0	190-13258-B-4 MS	Nitrate as N	2.42		mg/L	2.50	97	80-120			
Batch ID: 275985 Date: 04/24/2017 14:15 Prep Batch: 275977 Date: 04/24/2017 08:00											
4500 NH3 C-1997	240-78141-D-6 -B	Ammonia	5.0		mg/L						
4500 NH3 C-1997	240-78141-D-6 -B MS	Ammonia	10.1		mg/L	4.00	126	67-127			
Batch ID: 274655 Date: 04/13/2017 13:25											
4500 P E-1999	240-78035-2	Orthophosphate as P	0.080	J	mg/L						
4500 P E-1999	240-78035-2 MS	Orthophosphate as P	0.552		mg/L	0.500	94	31-154			
Batch ID: 275212 Date: 04/18/2017 14:14											
4500 P E-1999	240-78206-2	Orthophosphate as P	0.043	J	mg/L						
4500 P E-1999	240-78206-2 MS	Orthophosphate as P	0.564		mg/L	0.500	104	31-154			
Batch ID: 274970 Date: 04/17/2017 10:17											
9060	240-78035-2	Dissolved Organic Carbon	0.67	J	mg/L						
9060	240-78035-2 MS	Dissolved Organic Carbon	25.6		mg/L	25.0	100	65-134			
Batch ID: 276327 Date: 04/26/2017 06:47											
9060	240-78206-2	Dissolved Organic Carbon	1.5		mg/L						
9060	240-78206-2 MS	Dissolved Organic Carbon	26.5		mg/L	25.0	100	65-134			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 275205 Date: 04/18/2017 17:41											
300.0	240-78063-A-1 MSD	Chloride	86.0		mg/L	50.0	101	80-120	0	15	
300.0	240-78063-A-1 MSD	Sulfate	568		mg/L	50.0	44	80-120	1	15	4
Batch ID: 275205 Date: 04/19/2017 01:44											
300.0	190-13258-B-4 MSD	Chloride	123		mg/L	50.0	94	80-120	0	15	
300.0	190-13258-B-4 MSD	Sulfate	1720		mg/L	50.0	-91	80-120	0	15	4
Batch ID: 275206 Date: 04/19/2017 01:44											
300.0	190-13258-B-4 MSD	Nitrite as N	2.65		mg/L	2.50	106	80-120	0	15	
300.0	190-13258-B-4 MSD	Nitrate as N	2.41		mg/L	2.50	96	80-120	1	15	
Batch ID: 275985 Date: 04/24/2017 14:17			Prep Batch: 275977			Date: 04/24/2017 08:00					
4500 NH3 C-1997	240-78141-D-6 -C MSD	Ammonia	9.80		mg/L	4.00	119	67-127	3	16	
Batch ID: 274655 Date: 04/13/2017 13:26											
4500 P E-1999	240-78035-2 MSD	Orthophosphate as P	0.529		mg/L	0.500	90	31-154	4	11	
Batch ID: 275212 Date: 04/18/2017 14:14											
4500 P E-1999	240-78206-2 MSD	Orthophosphate as P	0.569		mg/L	0.500	105	31-154	1	11	
Batch ID: 274970 Date: 04/17/2017 10:25											
9060	240-78035-2 MSD	Dissolved Organic Carbon	25.5		mg/L	25.0	99	65-134	1	10	
Batch ID: 276327 Date: 04/26/2017 06:54											
9060	240-78206-2 MSD	Dissolved Organic Carbon	25.3		mg/L	25.0	95	65-134	5	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 275731	Date: 04/20/2017 12:40							
2320B-1997		190-13258-B-6	Alkalinity	270	mg/L			
2320B-1997		190-13258-B-6 DU	Alkalinity	275	mg/L	1	20	
Batch ID: 276080	Date: 04/24/2017 10:24							
2320B-1997		240-78238-E-1	Alkalinity	390	mg/L			
2320B-1997		240-78238-E-1 DU	Alkalinity	398	mg/L	2	20	
Batch ID: 275213	Date: 04/18/2017 14:14							
SM 2540C		240-78141-A-1	Total Dissolved Solids	650	mg/L			
SM 2540C		240-78141-A-1 DU	Total Dissolved Solids	657	mg/L	2	20	
Batch ID: 275589	Date: 04/20/2017 14:13							
SM 2540C		240-78152-I-8	Total Dissolved Solids	450	mg/L			
SM 2540C		240-78152-I-8 DU	Total Dissolved Solids	465	mg/L	3	20	
Batch ID: 275589	Date: 04/20/2017 14:13							
SM 2540C		240-78239-D-1	Total Dissolved Solids	370	mg/L			
SM 2540C		240-78239-D-1 DU	Total Dissolved Solids	377	mg/L	2	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 275731	Date: 04/20/2017 12:06										
						LCS Source: WCPHENOMINER_00017					
2320B-1997	LCS 240-275731/4	Alkalinity	370		mg/L	377	98	86-123			
Batch ID: 276080	Date: 04/24/2017 09:03										
						LCS Source: WCPHENOMINER_00017					
2320B-1997	LCS 240-276080/3	Alkalinity	364		mg/L	377	97	86-123			
Batch ID: 274609	Date: 04/13/2017 13:24										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-274609/4	Chloride	50.8		mg/L	50.0	102	90-110			
300.0	LCS 240-274609/4	Sulfate	52.0		mg/L	50.0	104	90-110			
Batch ID: 274610	Date: 04/13/2017 13:24										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-274610/4	Nitrite as N	2.53		mg/L	2.50	101	90-110			
300.0	LCS 240-274610/4	Nitrate as N	2.55		mg/L	2.50	102	90-110			
Batch ID: 275205	Date: 04/18/2017 16:41										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-275205/4	Chloride	51.0		mg/L	50.0	102	90-110			
300.0	LCS 240-275205/4	Sulfate	51.3		mg/L	50.0	103	90-110			
Batch ID: 275205	Date: 04/19/2017 00:43										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-275205/28	Chloride	50.9		mg/L	50.0	102	90-110			
300.0	LCS 240-275205/28	Sulfate	51.6		mg/L	50.0	103	90-110			
Batch ID: 275206	Date: 04/19/2017 00:43										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-275206/28	Nitrite as N	2.52		mg/L	2.50	101	90-110			
300.0	LCS 240-275206/28	Nitrate as N	2.56		mg/L	2.50	102	90-110			
Batch ID: 275985	Date: 04/24/2017 14:08	Prep Batch: 275977	Date: 04/24/2017 08:00								
						LCS Source: WCWIBBYNUTRIE_00075					
4500 NH3 C-1997	LCS 240-275977/2-A	Ammonia	6.72		mg/L	7.93	85	82-116			
Batch ID: 274655	Date: 04/13/2017 13:23										
						LCS Source: WCWIBBYNUTRIE_00072					
4500 P E-1999	LCS 240-274655/4	Orthophosphate as P	0.574		mg/L	0.509	113	80-120			
Batch ID: 275212	Date: 04/18/2017 14:14										
						LCS Source: WCWIBBYNUTRIE_00072					
4500 P E-1999	LCS 240-275212/4	Orthophosphate as P	0.549		mg/L	0.509	108	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 274970	Date: 04/17/2017 09:42										
						LCS Source: WC LCS_00057					
9060	LCS 240-274970/6	Dissolved Organic Carbon	49.3		mg/L	46.3	107	80-120			
Batch ID: 276327	Date: 04/26/2017 06:11										
						LCS Source: WC LCS_00057					
9060	LCS 240-276327/6	Dissolved Organic Carbon	48.5		mg/L	46.3	105	80-120			
Batch ID: 275213	Date: 04/18/2017 14:14										
						LCS Source: WCPHENOVSOLID_00021					
SM 2540C	LCS 240-275213/2	Total Dissolved Solids	250		mg/L	208	120	80-120			
Batch ID: 275589	Date: 04/20/2017 14:13										
						LCS Source: WCPHENOVSOLID_00021					
SM 2540C	LCS 240-275589/2	Total Dissolved Solids	230		mg/L	208	111	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LOW LEVEL CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 274970	Date: 04/17/2017 09:34										
						LCS Source: WC LCS_00058					
9060	LLCS 240-274970/5	Dissolved Organic Carbon	4.88		mg/L	4.63	105	88-115			
Batch ID: 276327	Date: 04/26/2017 06:03										
						LCS Source: WC LCS_00058					
9060	LLCS 240-276327/5	Dissolved Organic Carbon	4.78		mg/L	4.63	103	88-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 MDL Date: 05/28/2013 15:29

Prep Method: 4500 NH3 B-1997

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia		2	0.87

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 XMDL Date: 05/28/2013 15:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		2	0.87

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 MDL Date: 07/12/2013 09:18

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	1.9

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 XMDL Date: 07/12/2013 09:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.9

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 MDL Date: 08/12/2014 17:01

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 XMDL Date: 08/12/2014 17:02

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: 4500 P E-1999 MDL Date: 03/31/2016 13:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: 4500 P E-1999 XMDL Date: 02/17/2016 10:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 MDL Date: 04/28/2015 15:58

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 XMDL Date: 04/28/2015 15:59

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 01/28/2010 09:50

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78035-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 01/28/2010 09:51

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.4

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Prep Method: 4500 NH3 B-1997

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-275977/1-A	04/24/2017 08:00	275977		50	50
LCS 240-275977/2-A	04/24/2017 08:00	275977		50	50
240-78141-D-6-B MS	04/24/2017 08:00	275977		50	50
240-78141-D-6-C MSD	04/24/2017 08:00	275977		50	50
240-78035-2	04/24/2017 08:00	275977		50	50
240-78206-2	04/24/2017 08:00	275977		50	50
240-78206-5	04/24/2017 08:00	275977		50	50
240-78206-3	04/24/2017 08:00	275977		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 4500 NH3 C-1997

Start Date: 04/24/2017 14:07 End Date: 04/24/2017 14:46

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
MB 240-275977/1-A	1	T	14:07	X																								
LCS 240-275977/2-A	1	T	14:08	X																								
ZZZZZZ			14:10																									
ZZZZZZ			14:12																									
ZZZZZZ			14:13																									
240-78141-D-6-B MS	1	T	14:15	X																								
240-78141-D-6-C MSD	1	T	14:17	X																								
ZZZZZZ			14:18																									
ZZZZZZ			14:20																									
240-78035-2	1	T	14:22	X																								
ZZZZZZ			14:24																									
ZZZZZZ			14:25																									
ZZZZZZ			14:27																									
ZZZZZZ			14:29																									
240-78206-2	1	T	14:30	X																								
ZZZZZZ			14:32																									
240-78206-5	1	T	14:34	X																								
ZZZZZZ			14:36																									
ZZZZZZ			14:37																									
ZZZZZZ			14:39																									
ZZZZZZ			14:41																									
240-78206-3	1	T	14:42	X																								
ZZZZZZ			14:44																									
ZZZZZZ			14:46																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 04/20/2017 11:27 End Date: 04/20/2017 21:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 240-275731/1			11:27																									
RINSE 240-275731/2			11:33																									
ZZZZZZ			11:53																									
LCS 240-275731/4	1	T	12:06	X																								
MB 240-275731/5	1	T	12:12	X																								
ZZZZZZ			12:16																									
ZZZZZZ			12:29																									
190-13258-B-6 DU	1	T	12:40	X																								
240-78035-2	1	T	12:47	X																								
ZZZZZZ			13:04																									
ZZZZZZ			13:16																									
ZZZZZZ			13:27																									
ZZZZZZ			13:37																									
ZZZZZZ			13:44																									
ZZZZZZ			13:58																									
ZZZZZZ			14:10																									
ZZZZZZ			14:14																									
ZZZZZZ			14:25																									
ZZZZZZ			14:36																									
ZZZZZZ			14:48																									
ZZZZZZ			14:58																									
ZZZZZZ			15:08																									
ZZZZZZ			15:24																									
ZZZZZZ			15:37																									
ZZZZZZ			15:53																									
ZZZZZZ			16:04																									
ZZZZZZ			16:14																									
ZZZZZZ			16:18																									
ZZZZZZ			16:31																									
ZZZZZZ			16:39																									
ZZZZZZ			16:52																									
ZZZZZZ			16:59																									
ZZZZZZ			17:11																									
ZZZZZZ			17:22																									
ZZZZZZ			17:32																									
ZZZZZZ			17:42																									
ZZZZZZ			17:52																									
ZZZZZZ			18:04																									
ZZZZZZ			18:08																									
ZZZZZZ			18:21																									
ZZZZZZ			18:33																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 04/20/2017 11:27 End Date: 04/20/2017 21:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			18:48																									
ZZZZZZ			19:02																									
ZZZZZZ			19:13																									
ZZZZZZ			19:22																									
ZZZZZZ			19:34																									
ZZZZZZ			19:46																									
ZZZZZZ			19:58																									
ZZZZZZ			20:12																									
ZZZZZZ			20:16																									
ZZZZZZ			20:32																									
ZZZZZZ			20:48																									
ZZZZZZ			20:59																									
ZZZZZZ			21:13																									
ZZZZZZ			21:26																									
ZZZZZZ			21:31																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 04/24/2017 08:30 End Date: 04/24/2017 11:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 240-276080/1			08:30																									
ZZZZZZ			08:50																									
LCS 240-276080/3	1	T	09:03	X																								
MB 240-276080/4	1	T	09:08	X																								
ZZZZZZ			09:12																									
ZZZZZZ			09:25																									
ZZZZZZ			09:38																									
240-78206-2	1	T	09:44	X																								
240-78206-3	1	T	09:52	X																								
240-78206-5	1	T	09:57	X																								
ZZZZZZ			10:10																									
240-78238-E-1 DU	1	T	10:24	X																								
ZZZZZZ			10:35																									
ZZZZZZ			10:45																									
ZZZZZZ			10:58																									
ZZZZZZ			11:02																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/12/2017 10:47 End Date: 04/12/2017 14:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				CL-	SO4																							
STD1 240-274398/1 IC	1		10:47	X	X																							
STD2 240-274398/2 IC	1		11:07	X	X																							
STD3 240-274398/3 IC	1		11:27	X	X																							
STD4 240-274398/4 IC	1		11:48	X	X																							
STD5 240-274398/5 ICRT	1		12:08	X	X																							
STD6 240-274398/6 IC	1		12:28	X	X																							
STD7 240-274398/7 IC	1		12:48	X	X																							
STD8 240-274398/8 IC	1		13:08	X	X																							
STD9 240-274398/9 IC	1		13:28	X	X																							
ICV 240-274398/10	1		13:48	X	X																							
ICB 240-274398/11	1		14:08	X	X																							

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/12/2017 10:47 End Date: 04/12/2017 14:08

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
STD1 240-274399/1 IC	1		10:47	X	X																								
STD2 240-274399/2 IC	1		11:07	X	X																								
STD3 240-274399/3 IC	1		11:27	X	X																								
STD4 240-274399/4 IC	1		11:48	X	X																								
STD5 240-274399/5 ICRT	1		12:08	X	X																								
STD6 240-274399/6 IC	1		12:28	X	X																								
STD7 240-274399/7 IC	1		12:48	X	X																								
STD8 240-274399/8 IC	1		13:08	X	X																								
STD9 240-274399/9 IC	1		13:28	X	X																								
ICV 240-274399/10	1		13:48	X	X																								
ICB 240-274399/11	1		14:08	X	X																								

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/13/2017 12:24 End Date: 04/14/2017 01:26

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
CCV 240-274609/1	1		12:24	X	X																								
CCB 240-274609/2	1		12:44	X	X																								
MB 240-274609/3	1	T	13:04	X	X																								
LCS 240-274609/4	1	T	13:24	X	X																								
ZZZZZZ			13:44																										
240-78035-2	1	T	15:43	X	X																								
ZZZZZZ			16:03																										
ZZZZZZ			16:24																										
ZZZZZZ			16:44																										
CCV 240-274609/13	1		17:04	X	X																								
CCB 240-274609/14	1		17:24	X	X																								
ZZZZZZ			17:44																										
ZZZZZZ			18:04																										
ZZZZZZ			18:24																										
ZZZZZZ			18:44																										
ZZZZZZ			19:04																										
ZZZZZZ			19:24																										
ZZZZZZ			19:44																										
ZZZZZZ			20:04																										
ZZZZZZ			20:25																										
ZZZZZZ			20:45																										
CCV 240-274609/25	1		21:05		X																								
CCB 240-274609/26	1		21:25		X																								
ZZZZZZ			21:45																										
ZZZZZZ			22:05																										
ZZZZZZ			22:25																										
ZZZZZZ			22:45																										
ZZZZZZ			23:05																										
ZZZZZZ			23:25																										
ZZZZZZ			23:45																										
ZZZZZZ			00:05																										
ZZZZZZ			00:26																										
ZZZZZZ			00:46																										
CCV 240-274609/37			01:06																										
CCB 240-274609/38			01:26																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/13/2017 12:24 End Date: 04/14/2017 01:26

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-274610/1	1		12:24	X	X																								
CCB 240-274610/2	1		12:44	X	X																								
MB 240-274610/3	1	T	13:04	X	X																								
LCS 240-274610/4	1	T	13:24	X	X																								
ZZZZZZ			13:44																										
ZZZZZZ			14:43																										
240-78031-B-1 MS	1	T	15:03	X	X																								
240-78031-B-1 MSD	1	T	15:23	X	X																								
240-78035-2	1	T	15:43	X	X																								
ZZZZZZ			16:03																										
ZZZZZZ			16:24																										
ZZZZZZ			16:44																										
CCV 240-274610/13	1		17:04	X	X																								
CCB 240-274610/14	1		17:24	X	X																								
ZZZZZZ			17:44																										
ZZZZZZ			18:04																										
ZZZZZZ			18:24																										
ZZZZZZ			18:44																										
ZZZZZZ			19:04																										
ZZZZZZ			19:24																										
ZZZZZZ			19:44																										
ZZZZZZ			20:04																										
ZZZZZZ			20:25																										
ZZZZZZ			20:45																										
CCV 240-274610/25			21:05																										
CCB 240-274610/26			21:25																										
ZZZZZZ			21:45																										
ZZZZZZ			22:05																										
ZZZZZZ			22:25																										
ZZZZZZ			22:45																										
ZZZZZZ			23:05																										
ZZZZZZ			23:25																										
ZZZZZZ			23:45																										
ZZZZZZ			00:05																										
ZZZZZZ			00:26																										
CCV 240-274610/37			01:06																										
CCB 240-274610/38			01:26																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/18/2017 15:41 End Date: 04/19/2017 08:05

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
CCV 240-275205/1	1		15:41	X	X																								
CCB 240-275205/2	1		16:01	X	X																								
MB 240-275205/3	1	T	16:21	X	X																								
LCS 240-275205/4	1	T	16:41	X	X																								
ZZZZZZ			17:01																										
240-78063-A-1 MS	5	T	17:21	X	X																								
240-78063-A-1 MSD	5	T	17:41	X	X																								
ZZZZZZ			18:02																										
ZZZZZZ			18:22																										
ZZZZZZ			18:42																										
ZZZZZZ			19:02																										
ZZZZZZ			19:22																										
CCV 240-275205/13	1		19:42	X	X																								
CCB 240-275205/14	1		20:02	X	X																								
ZZZZZZ			20:22																										
ZZZZZZ			20:42																										
ZZZZZZ			21:02																										
ZZZZZZ			21:22																										
ZZZZZZ			21:42																										
ZZZZZZ			22:03																										
ZZZZZZ			22:23																										
ZZZZZZ			22:43																										
ZZZZZZ			23:03																										
ZZZZZZ			23:23																										
CCV 240-275205/25	1		23:43	X	X																								
CCB 240-275205/26	1		00:03	X	X																								
MB 240-275205/27	1	T	00:23	X	X																								
LCS 240-275205/28	1	T	00:43	X	X																								
ZZZZZZ			01:03																										
190-13258-B-4 MS	10	T	01:23	X	X																								
190-13258-B-4 MSD	10	T	01:44	X	X																								
ZZZZZZ			02:04																										
ZZZZZZ			02:24																										
ZZZZZZ			02:44																										
ZZZZZZ			03:04																										
ZZZZZZ			03:24																										
CCV 240-275205/37	1		03:44	X	X																								
CCB 240-275205/38	1		04:04	X	X																								
ZZZZZZ			04:24																										
ZZZZZZ			04:44																										
ZZZZZZ			05:05																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/18/2017 15:41 End Date: 04/19/2017 08:05

Lab Sample Id	D/F	Type	Time	Analytes																								
				CL-	SO4																							
ZZZZZZ			05:25																									
ZZZZZZ			05:45																									
ZZZZZZ			06:05																									
ZZZZZZ			06:25																									
240-78206-2	10	T	06:45	X	X																							
240-78206-3	20	T	07:05	X	X																							
240-78206-5	5	T	07:25	X	X																							
CCV 240-275205/49	1		07:45	X	X																							
CCB 240-275205/50	1		08:05	X	X																							

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/18/2017 23:43 End Date: 04/19/2017 08:05

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-275206/25	1		23:43	X	X																								
CCB 240-275206/26	1		00:03	X	X																								
MB 240-275206/27	1	T	00:23	X	X																								
LCS 240-275206/28	1	T	00:43	X	X																								
ZZZZZZ			01:03																										
190-13258-B-4 MS	10		01:23	X	X																								
190-13258-B-4 MSD	10		01:44	X	X																								
CCV 240-275206/37	1		03:44	X	X																								
CCB 240-275206/38	1		04:04	X	X																								
ZZZZZZ			04:44																										
ZZZZZZ			05:05																										
240-78206-2	10	T	06:45	X	X																								
240-78206-3	20	T	07:05	X	X																								
240-78206-5	5	T	07:25	X	X																								
CCV 240-275206/49	1		07:45	X	X																								
CCB 240-275206/50	1		08:05	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: ERNIE Analysis Method: 4500 P E-1999

Start Date: 03/14/2017 12:45 End Date: 03/14/2017 13:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp																								
IC 240-270540/1	1		12:45	X																								
IC 240-270540/2	1		12:48	X																								
IC 240-270540/3	1		12:51	X																								
IC 240-270540/4	1		12:55	X																								
IC 240-270540/5	1		12:58	X																								
IC 240-270540/6	1		13:01	X																								
IC 240-270540/7	1		13:05	X																								
IC 240-270540/8	1		13:08	X																								
IC 240-270540/9	1		13:11	X																								
IC 240-270540/10	1		13:15	X																								
ICV 240-270540/11	1		13:18	X																								
ICB 240-270540/12			13:22																									
ZZZZZZ			13:25																									
ZZZZZZ			13:28																									
ZZZZZZ			13:32																									
ZZZZZZ			13:35																									
ZZZZZZ			13:38																									
CCV 240-270540/18			13:42																									
CCB 240-270540/19			13:45																									

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: ERNIE Analysis Method: 4500 P E-1999

Start Date: 04/13/2017 13:20 End Date: 04/13/2017 13:39

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp																								
CCV 240-274655/1	1		13:20	X																								
CCB 240-274655/2	1		13:21	X																								
MB 240-274655/3	1	T	13:22	X																								
LCS 240-274655/4	1	T	13:23	X																								
240-78035-2	1	T	13:24	X																								
240-78035-2 MS	1	T	13:25	X																								
240-78035-2 MSD	1	T	13:26	X																								
CCV 240-274655/8	1		13:27	X																								
CCB 240-274655/9	1		13:28	X																								
ZZZZZZ			13:29																									
ZZZZZZ			13:30																									
ZZZZZZ			13:31																									
ZZZZZZ			13:32																									
ZZZZZZ			13:33																									
ZZZZZZ			13:34																									
ZZZZZZ			13:35																									
ZZZZZZ			13:36																									
ZZZZZZ			13:37																									
ZZZZZZ			13:38																									
ZZZZZZ			13:39																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: ERNIE Analysis Method: 4500 P E-1999

Start Date: 04/18/2017 14:14 End Date: 04/18/2017 14:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp as P																								
CCV 240-275212/1	1		14:14	X																								
CCB 240-275212/2	1		14:14	X																								
MB 240-275212/3	1	T	14:14	X																								
LCS 240-275212/4	1	T	14:14	X																								
240-78206-2	1	T	14:14	X																								
240-78206-2 MS	1	T	14:14	X																								
240-78206-2 MSD	1	T	14:14	X																								
240-78206-3	1	T	14:14	X																								
240-78206-5	1	T	14:14	X																								
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
CCV 240-275212/12	1		14:14	X																								
CCB 240-275212/13	1		14:14	X																								
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: Clark Analysis Method: 9060

Start Date: 04/17/2017 08:36 End Date: 04/17/2017 11:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			08:36																									
CCV 240-274970/2	1		09:08	X																								
CCB 240-274970/3	1		09:15	X																								
MB 240-274970/4	1	D	09:26	X																								
LLCS 240-274970/5	1	D	09:34	X																								
LCS 240-274970/6	1	D	09:42	X																								
240-78035-2	1	D	09:50	X																								
240-78035-2 MS	2	D	10:17	X																								
240-78035-2 MSD	2	D	10:25	X																								
ZZZZZZ			10:34																									
CCVL 240-274970/11	1		11:03	X																								
CCV 240-274970/12	1		11:12	X																								
CCB 240-274970/13	1		11:20	X																								

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: Clark Analysis Method: 9060

Start Date: 04/26/2017 05:05 End Date: 04/26/2017 10:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			05:05																									
CCV 240-276327/2	1		05:37	X																								
CCB 240-276327/3	1		05:44	X																								
MB 240-276327/4	1	D	05:55	X																								
LLCS 240-276327/5	1	D	06:03	X																								
LCS 240-276327/6	1	D	06:11	X																								
240-78206-2	1	D	06:20	X																								
240-78206-2 MS	2	D	06:47	X																								
240-78206-2 MSD	2	D	06:54	X																								
240-78206-3	1	D	07:05	X																								
240-78206-5	1	D	07:33	X																								
ZZZZZZ			08:01																									
ZZZZZZ			08:29																									
CCVL 240-276327/14	1		08:55	X																								
CCB 240-276327/15	1		09:04	X																								
ZZZZZZ			09:12																									
ZZZZZZ			09:41																									
ZZZZZZ			10:09																									
CCV 240-276327/19	1		10:34	X																								
CCVL 240-276327/20			10:43																									
CCB 240-276327/21			10:53																									

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 04/18/2017 14:14 End Date: 04/18/2017 14:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-275213/1	1	T	14:14	X																								
LCS 240-275213/2	1	T	14:14	X																								
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
ZZZZZZ			14:14																									
240-78141-A-1 DU	1	T	14:14	X																								
ZZZZZZ			14:14																									
240-78035-2	1	T	14:14	X																								
ZZZZZZ			14:14																									
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Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 04/20/2017 14:13 End Date: 04/20/2017 14:13

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-275589/1	1	T	14:13	X																								
LCS 240-275589/2	1	T	14:13	X																								
240-78152-I-8 DU	1	T	14:13	X																								
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
240-78206-2	1	T	14:13	X																								
240-78206-3	1	T	14:13	X																								
240-78239-D-1 DU	1	T	14:13	X																								
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
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ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
ZZZZZZ			14:13																									
240-78206-5	1	T	14:13	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275977 Batch Start Date: 04/24/17 08:00 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 B-1997 Batch End Date: 04/24/17 13:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	AdjustedpH	WCNH31000 00048	WCWIBBYNUTRIE 00075
MB 240-275977/1		4500 NH3 B-1997, 4500 NH3 C-1997		x	50 mL	50 mL	x SU		
LCS 240-275977/2		4500 NH3 B-1997, 4500 NH3 C-1997		x	50 mL	50 mL	x SU		50 mL
240-78141-D-6 MS		4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU	0.2 mL	
240-78141-D-6 MSD		4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU	0.2 mL	
240-78035-M-2	MRC-MW12B-041217	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		
240-78206-M-2	MRC-MW27A-041717	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		
240-78206-M-5	MRC-MW24A-041717	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		
240-78206-M-3	MRC-MW27B-041717	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		

Batch Notes	
Base used for pH adjustment	2997226
Batch Comment	beakers 2975240
Borate Buffer Dispenser ID	2997247
Boric Acid Dispenser ID	2997196
Distilliation Unit ID	distillation block in wet prep
Distillation Temperature	162 Degrees C
Glass Beads Lot #	Hengar 10/24/2014
Phenanthroline ID	2959101
Pipette ID	B1 C1 E12

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275977 Batch Start Date: 04/24/17 08:00 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 B-1997 Batch End Date: 04/24/17 13:35

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275985 Batch Start Date: 04/24/17 14:07 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 C-1997 Batch End Date: 04/24/17 14:48

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TitrantVolume1			
MB 240-275977/1-A		4500 NH3 C-1997		50 mL	50 mL	0.00 mL			
LCS 240-275977/2-A		4500 NH3 C-1997		50 mL	50 mL	1.20 mL			
240-78141-D-6-B MS		4500 NH3 C-1997	T	50 mL	50 mL	1.80 mL			
240-78141-D-6-C MSD		4500 NH3 C-1997	T	50 mL	50 mL	1.75 mL			
240-78035-M-2-A	MRC-MW12B-041217	4500 NH3 C-1997	T	50 mL	50 mL	0.05 mL			
240-78206-M-2-A	MRC-MW27A-041717	4500 NH3 C-1997	T	50 mL	50 mL	0.45 mL			
240-78206-M-5-A	MRC-MW24A-041717	4500 NH3 C-1997	T	50 mL	50 mL	0.15 mL			
240-78206-M-3-A	MRC-MW27B-041717	4500 NH3 C-1997	T	50 mL	50 mL	0.05 mL			

Batch Notes	
Batch Comment	indicator 2914203
Sulfuric Acid Lot Number	2851240
Nominal Amount Used	50 mL
Normality of First Titrant	0.0200 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275731 Batch Start Date: 04/20/17 11:27 Batch Analyst: Grossman, Lucas

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	FinalAmount	WCPHENOMINER 00017			
LCS 240-275731/4		2320B-1997		InitialAmount is blank	50 mL	50 mL			
MB 240-275731/5		2320B-1997		InitialAmount is blank	50 mL				
190-13258-B-6 DU		2320B-1997	T	InitialAmount is blank	50 mL				
240-78035-L-2	MRC-MW12B-041217	2320B-1997	T	InitialAmount is blank	50 mL				

Batch Notes	
pH Buffer 1 ID	4- 3004248
pH Buffer 2 ID	7-2951051
pH Buffer 3 ID	10-2971170
pH Buffer 4 ID	12-3003589
Sulfuric Acid Lot Number	2851240
Nominal Amount Used	50 mL
Probe ID	114
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 276080 Batch Start Date: 04/24/17 08:30 Batch Analyst: Grossman, Lucas

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	FinalAmount	WCPHENOMINER 00017			
LCS 240-276080/3		2320B-1997		InitialAmount is blank	50 mL	50 mL			
MB 240-276080/4		2320B-1997		InitialAmount is blank	50 mL				
240-78206-L-2	MRC-MW27A-041717	2320B-1997	T	InitialAmount is blank	50 mL				
240-78206-L-3	MRC-MW27B-041717	2320B-1997	T	InitialAmount is blank	50 mL				
240-78206-L-5	MRC-MW24A-041717	2320B-1997	T	InitialAmount is blank	50 mL				
240-78238-E-1 DU		2320B-1997	T	InitialAmount is blank	50 mL				

Batch Notes	
pH Buffer 1 ID	4-3004248
pH Buffer 2 ID	7-2951051
pH Buffer 3 ID	10-2971170
pH Buffer 4 ID	12-3003589
Sulfuric Acid Lot Number	2851240
Nominal Amount Used	50 mL
Probe ID	112
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274398 Batch Start Date: 04/12/17 10:47 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00282	WCICLCS 00603			
STD1 240-274398/1 IC		300.0		5 mL	0.025 mL				
STD2 240-274398/2 IC		300.0		5 mL	0.125 mL				
STD3 240-274398/3 IC		300.0		5 mL	0.25 mL				
STD4 240-274398/4 IC		300.0		5 mL	0.5 mL				
STD5 240-274398/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-274398/6 IC		300.0		5 mL	2 mL				
STD7 240-274398/7 IC		300.0		5 mL	2.5 mL				
STD8 240-274398/8 IC		300.0		5 mL	3.75 mL				
STD9 240-274398/9 IC		300.0		5 mL	5 mL				
ICV 240-274398/10		300.0		5 mL		5 mL			
ICB 240-274398/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274399 Batch Start Date: 04/12/17 10:47 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00282	WCICLCS 00603			
STD1 240-274399/1 IC		300.0		5 mL	0.025 mL				
STD2 240-274399/2 IC		300.0		5 mL	0.125 mL				
STD3 240-274399/3 IC		300.0		5 mL	0.25 mL				
STD4 240-274399/4 IC		300.0		5 mL	0.5 mL				
STD5 240-274399/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-274399/6 IC		300.0		5 mL	2 mL				
STD7 240-274399/7 IC		300.0		5 mL	2.5 mL				
STD8 240-274399/8 IC		300.0		5 mL	3.75 mL				
STD9 240-274399/9 IC		300.0		5 mL	5 mL				
ICV 240-274399/10		300.0		5 mL		5 mL			
ICB 240-274399/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274609 Batch Start Date: 04/13/17 12:24 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCICCCV 00766	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014
CCV 240-274609/1		300.0		5 mL		5 mL			
CCB 240-274609/2		300.0		5 mL					
MB 240-274609/3		300.0		5 mL					
LCS 240-274609/4		300.0		5 mL			5 mL		
240-78035-N-2	MRC-MW12B-041217	300.0	T	5 mL	1.0 mL				
CCV 240-274609/13		300.0		5 mL	1.0 mL	5 mL			
CCB 240-274609/14		300.0		5 mL	1.0 mL				
240-78028-I-6 MS	GW-041217-JB-23	300.0	T	5 mL	1.0 mL			0.1 mL	0.1 mL
240-78028-I-6 MSD	GW-041217-JB-23	300.0	T	5 mL	1.0 mL			0.1 mL	0.1 mL
CCV 240-274609/25		300.0		5 mL		5 mL			
CCB 240-274609/26		300.0		5 mL	1.0 mL				

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274610 Batch Start Date: 04/13/17 12:24 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCICCCV 00766	WCICLCS 00603		
CCV 240-274610/1		300.0		5 mL		5 mL			
CCB 240-274610/2		300.0		5 mL					
MB 240-274610/3		300.0		5 mL					
LCS 240-274610/4		300.0		5 mL			5 mL		
240-78031-B-1 MS		300.0	T	5 mL	1.0 mL				
240-78031-B-1 MSD		300.0	T	5 mL	1.0 mL				
240-78035-N-2	MRC-MW12B-041217	300.0	T	5 mL	1.0 mL				
CCV 240-274610/13		300.0		5 mL	1.0 mL	5 mL			
CCB 240-274610/14		300.0		5 mL	1.0 mL				

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275205 Batch Start Date: 04/18/17 15:41 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00766	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-275205/1		300.0		5 mL	5 mL				
CCB 240-275205/2		300.0		5 mL					
MB 240-275205/3		300.0		5 mL					
LCS 240-275205/4		300.0		5 mL		5 mL			
240-78063-A-1 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-78063-A-1 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-275205/13		300.0		5 mL	5 mL				
CCB 240-275205/14		300.0		5 mL					
CCV 240-275205/25		300.0		5 mL	5 mL				
CCB 240-275205/26		300.0		5 mL					
MB 240-275205/27		300.0		5 mL					
LCS 240-275205/28		300.0		5 mL		5 mL			
190-13258-B-4 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
190-13258-B-4 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-275205/37		300.0		5 mL	5 mL				
CCB 240-275205/38		300.0		5 mL					
240-78206-N-2	MRC-MW27A-041717	300.0	T	5 mL					
240-78206-N-3	MRC-MW27B-041717	300.0	T	5 mL					
240-78206-N-5	MRC-MW24A-041717	300.0	T	5 mL					
CCV 240-275205/49		300.0		5 mL	5 mL				
CCB 240-275205/50		300.0		5 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275205 Batch Start Date: 04/18/17 15:41 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275206 Batch Start Date: 04/18/17 23:43 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00766	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-275206/25		300.0		5 mL	5 mL				
CCB 240-275206/26		300.0		5 mL					
MB 240-275206/27		300.0		5 mL					
LCS 240-275206/28		300.0		5 mL		5 mL			
190-13258-B-4 MS		300.0		5 mL			0.1 mL	0.1 mL	
190-13258-B-4 MSD		300.0		5 mL			0.1 mL	0.1 mL	
CCV 240-275206/37		300.0		5 mL	5 mL				
CCB 240-275206/38		300.0		5 mL					
240-78206-N-2	MRC-MW27A-041717	300.0	T	5 mL					
240-78206-N-3	MRC-MW27B-041717	300.0	T	5 mL					
240-78206-N-5	MRC-MW24A-041717	300.0	T	5 mL					
CCV 240-275206/49		300.0		5 mL	5 mL				
CCB 240-275206/50		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 270540 Batch Start Date: 03/14/17 12:45 Batch Analyst: Weimer, Joshua W

Batch Method: 4500 P E-1999 Batch End Date: 03/14/17 13:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00023	WCWIBBYNUTRIE 00072		
IC 240-270540/1		4500 P E-1999		10 mL	10 mL				
IC 240-270540/2		4500 P E-1999		10 mL	10 mL	0.1 mL			
IC 240-270540/3		4500 P E-1999		10 mL	10 mL	0.2 mL			
IC 240-270540/4		4500 P E-1999		10 mL	10 mL	0.6 mL			
IC 240-270540/5		4500 P E-1999		10 mL	10 mL	1 mL			
IC 240-270540/6		4500 P E-1999		10 mL	10 mL	2 mL			
IC 240-270540/7		4500 P E-1999		10 mL	10 mL	4 mL			
IC 240-270540/8		4500 P E-1999		10 mL	10 mL	6 mL			
IC 240-270540/9		4500 P E-1999		10 mL	10 mL	8 mL			
IC 240-270540/10		4500 P E-1999		10 mL	10 mL	10 mL			
ICV 240-270540/11		4500 P E-1999		10 mL	10 mL		1 mL		

Batch Notes	
Pipette ID	B8/C2/E1/F5

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274655 Batch Start Date: 04/13/17 13:20 Batch Analyst: Woodward, Bruce

Batch Method: 4500 P E-1999 Batch End Date: 04/13/17 13:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00024	WCPHOS50PPM 00089	WCWIBBYNUTRIE 00072	
CCV 240-274655/1		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-274655/2		4500 P E-1999		10 mL	10 mL				
MB 240-274655/3		4500 P E-1999		10 mL	10 mL				
LCS 240-274655/4		4500 P E-1999		10 mL	10 mL			1 mL	
240-78035-N-2	MRC-MW12B-041217	4500 P E-1999	T	10 mL	10 mL				
240-78035-N-2 MS	MRC-MW12B-041217	4500 P E-1999	T	10 mL	10 mL		0.1 mL		
240-78035-N-2 MSD	MRC-MW12B-041217	4500 P E-1999	T	10 mL	10 mL		0.1 mL		
CCV 240-274655/8		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-274655/9		4500 P E-1999		10 mL	10 mL				

Batch Notes	
Pipette ID	B3,E5

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275212 Batch Start Date: 04/18/17 14:14 Batch Analyst: Woodward, Bruce

Batch Method: 4500 P E-1999 Batch End Date: 04/18/17 14:22

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00024	WCPHOS50PPM 00089	WCWIBBYNUTRIE 00072	
CCV 240-275212/1		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-275212/2		4500 P E-1999		10 mL	10 mL				
MB 240-275212/3		4500 P E-1999		10 mL	10 mL				
LCS 240-275212/4		4500 P E-1999		10 mL	10 mL			1 mL	
240-78206-N-2	MRC-MW27A-041717	4500 P E-1999	T	10 mL	10 mL				
240-78206-N-2 MS	MRC-MW27A-041717	4500 P E-1999	T	10 mL	10 mL		0.1 mL		
240-78206-N-2 MSD	MRC-MW27A-041717	4500 P E-1999	T	10 mL	10 mL		0.1 mL		
240-78206-N-3	MRC-MW27B-041717	4500 P E-1999	T	10 mL	10 mL				
240-78206-N-5	MRC-MW24A-041717	4500 P E-1999	T	10 mL	10 mL				
CCV 240-275212/12		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-275212/13		4500 P E-1999		10 mL	10 mL				

Batch Notes	
Pipette ID	B2,E9

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 274970 Batch Start Date: 04/17/17 08:36 Batch Analyst: Harshman, Tom

Batch Method: 9060 Batch End Date: 04/17/17 11:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WC LCS 00057	WC LCS 00058	WC TOC CCV 00352	WC TOC CCVL 00148
CCV 240-274970/2		9060		40 mL	40 mL			40 mL	
CCB 240-274970/3		9060		40 mL	40 mL				
MB 240-274970/4		9060		40 mL	40 mL				
LLCS 240-274970/5		9060		40 mL	40 mL		4 mL		
LCS 240-274970/6		9060		40 mL	40 mL	40 mL			
240-78035-I-2	MRC-MW12B-041217	9060	D	40 mL	40 mL				
240-78035-I-2 MS	MRC-MW12B-041217	9060	D	40 mL	40 mL			20 mL	
240-78035-I-2 MSD	MRC-MW12B-041217	9060	D	40 mL	40 mL			20 mL	
CCVL 240-274970/11		9060		40 mL	40 mL				40 mL
CCV 240-274970/12		9060		40 mL	40 mL			40 mL	
CCB 240-274970/13		9060		40 mL	40 mL				

Batch Notes	
Phosphoric Acid ID	2959670
Sodium Persulfate ID	2959671

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 276327 Batch Start Date: 04/26/17 05:05 Batch Analyst: Harshman, Tom

Batch Method: 9060 Batch End Date: 04/26/17 10:53

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WC LCS 00057	WC LCS 00058	WC TOC CCV 00353	WC TOC CCVL 00149
CCV 240-276327/2		9060		40 mL	40 mL			40 mL	
CCB 240-276327/3		9060		40 mL	40 mL				
MB 240-276327/4		9060		40 mL	40 mL				
LLCS 240-276327/5		9060		40 mL	40 mL		4 mL		
LCS 240-276327/6		9060		40 mL	40 mL	40 mL			
240-78206-I-2	MRC-MW27A-041717	9060	D	40 mL	40 mL				
240-78206-I-2 MS	MRC-MW27A-041717	9060	D	40 mL	40 mL			20 mL	
240-78206-I-2 MSD	MRC-MW27A-041717	9060	D	40 mL	40 mL			20 mL	
240-78206-H-3	MRC-MW27B-041717	9060	D	40 mL	40 mL				
240-78206-H-5	MRC-MW24A-041717	9060	D	40 mL	40 mL				
CCVL 240-276327/14		9060		40 mL	40 mL				40 mL
CCB 240-276327/15		9060		40 mL	40 mL				
CCV 240-276327/19		9060		40 mL	40 mL			40 mL	

Batch Notes	
Phosphoric Acid ID	2959670
Sodium Persulfate ID	2959671

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275213 Batch Start Date: 04/18/17 14:14 Batch Analyst: Burns, Jill

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	WeightOne%Diff
MB 240-275213/1		SM 2540C			100 mL	3.8614 g	3.8614 g	3.8616 g	Pass No Unit
LCS 240-275213/2		SM 2540C			50 mL	3.8756 g	3.8879 g	3.8881 g	Pass No Unit
240-78141-A-1 DU		SM 2540C	T	920 umhos/cm	100 mL	3.6842 g	3.7499 g	3.7499 g	Pass No Unit
240-78035-N-2	MRC-MW12B-041217	SM 2540C	T	210 umhos/cm	100 mL	3.6150 g	3.6271 g	3.6275 g	Pass No Unit

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3	Residue4
MB 240-275213/1		SM 2540C		N/A No Unit	N/A	0 g	0.0002 g	N/A g	N/A g
LCS 240-275213/2		SM 2540C		N/A No Unit	N/A	0.0123 g	0.0125 g	N/A g	N/A g
240-78141-A-1 DU		SM 2540C	T	N/A No Unit	N/A	0.0657 g	0.0657 g	N/A g	N/A g
240-78035-N-2	MRC-MW12B-041217	SM 2540C	T	N/A No Unit	N/A	0.0121 g	0.0125 g	N/A g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WCPHENOVSOLID 00021			
MB 240-275213/1		SM 2540C		100 mL	OK				
LCS 240-275213/2		SM 2540C		100 mL	OK	50 mL			
240-78141-A-1 DU		SM 2540C	T	100 mL	OK				
240-78035-N-2	MRC-MW12B-041217	SM 2540C	T	100 mL	OK				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275213 Batch Start Date: 04/18/17 14:14 Batch Analyst: Burns, Jill

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	B048
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	04/19/17 11:50
Constant Weight (WT2) Date/Time Out	04/19/17 13:00
Constant Weight (WT2) Temp In	180 Degrees C
Constant Weight (WT2) Temp Out	180 Degrees C
Corrected Temperature in Oven	103 Degrees C
Date/Time Samples placed in Oven	04/18/17 17:00
Date/Time Samples Removed from Oven	04/19/17 07:10
Filter Paper ID	2793792
Nominal Amount Used	100 mL
Oven ID	O06/O01
Pipette ID	E3
Uncorrected Out Temperature	104 Degrees C
Weight(WT1) Start Date/Time	04/19/17 07:10
Weight(WT1) Date/Time Out	04/19/17 10:15
Weight(WT1) Start Temp	181 Degrees C
Weight(WT1) Temp Out	181 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275589 Batch Start Date: 04/20/17 14:13 Batch Analyst: Larue, Charles

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	Weight3
MB 240-275589/1		SM 2540C			100 mL	3.6523 g	3.6525 g	3.6524 g	0 g
LCS 240-275589/2		SM 2540C			50 mL	3.6213 g	3.6328 g	3.6328 g	0 g
240-78152-I-8 DU		SM 2540C	T	730 umhos/cm	100 mL	3.6362 g	3.6829 g	3.6827 g	0 g
240-78206-N-2	MRC-MW27A-041717	SM 2540C	T	3329 umhos/cm	25 mL	3.6300 g	3.6691 g	3.6690 g	0 g
240-78206-N-3	MRC-MW27B-041717	SM 2540C	T	7115 umhos/cm	20 mL	3.6518 g	3.6594 g	3.6593 g	0 g
240-78239-D-1 DU		SM 2540C	T	690 umhos/cm	100 mL	3.6259 g	3.6633 g	3.6636 g	0 g
240-78206-N-5	MRC-MW24A-041717	SM 2540C	T	1922 umhos/cm	50 mL	3.8905 g	3.9392 g	3.9397 g	0 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 240-275589/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0002 g	0.0001 g	N/A g
LCS 240-275589/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0115 g	0.0115 g	N/A g
240-78152-I-8 DU		SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0467 g	0.0465 g	N/A g
240-78206-N-2	MRC-MW27A-041717	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0391 g	0.039 g	N/A g
240-78206-N-3	MRC-MW27B-041717	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0076 g	0.0075 g	N/A g
240-78239-D-1 DU		SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0374 g	0.0377 g	N/A g
240-78206-N-5	MRC-MW24A-041717	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0487 g	0.0492 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	WCPHENOVSOLID 00021		
MB 240-275589/1		SM 2540C		N/A g	100 mL	OK			
LCS 240-275589/2		SM 2540C		N/A g	100 mL	OK	50 mL		
240-78152-I-8 DU		SM 2540C	T	N/A g	100 mL	OK			
240-78206-N-2	MRC-MW27A-041717	SM 2540C	T	N/A g	100 mL	OK			
240-78206-N-3	MRC-MW27B-041717	SM 2540C	T	N/A g	100 mL	OK			
240-78239-D-1 DU		SM 2540C	T	N/A g	100 mL	OK			
240-78206-N-5	MRC-MW24A-041717	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78035-1

SDG No.:

Batch Number: 275589 Batch Start Date: 04/20/17 14:13 Batch Analyst: Larue, Charles

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	B048
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	4/21/17 1526
Constant Weight (WT2) Date/Time Out	4/21/17 1626
Uncorrected CW (Wt2) Temp In	181 Degrees C
Uncorrected CW (Wt2) Temp Out	181 Degrees C
Corrected Temperature in Oven	103 Degrees C
Date/Time Samples placed in Oven	04/20/17 15:11
Filter Paper ID	2793792
Nominal Amount Used	100 mL
Oven ID	O06/O01
Pipette ID	E3
Weight(WT1) Start Date/Time	4/21/17 0954
Weight(WT1) Date/Time Out	4/21/17 1412
Uncorrected Weight(WT1) Start Temp	181 Degrees C
Uncorrected Weight(WT1) Temp Out	181 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JUNE 1, 2017**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOCs, 1,4-DIOXANE, DISSOLVED GASES, METALS, MISCELLANEOUS**
LOCKHEED MARTIN CORPORATION (LMC) – MIDDLE RIVER COMPLEX (MRC) GROUNDWATER
SDG 240-78295-1

SAMPLES:

14/Aqueous
VOCs, 1,4-Dioxane

MRC-MW08B-042117	MRC-MW100A-041817	MRC-MW100B-041817
MRC-MW111A-042017	MRC-MW111B-042017	MRC-MW14B-041817
MRC-MW25A-042117	MRC-MW48A-041917	MRC-MW72B-041817
MRC-MW81B-041917	MRC-MW92C-041917	MRC-MW98A-042017
MRC-MW98B-042017		

1/Aqueous
VOCs
MRC-DUP12-041917

2/Aqueous
1,4-Dioxane

MRC-DUP11-041817	MRC-DUP13-042117

5/Aqueous
Dissolved Gases, Metals, Alkalinity, Ammonia, Chloride, Dissolved Organic Carbon, Nitrate, Nitrite, Orthophosphate, Sulfate, Total Dissolved Solids

MRC-MW14B-041817	MRC-MW25A-042117	MRC-MW48A-041917
MRC-MW72B-041917	MRC-MW81B-041917	

1/Aqueous
Metals
MRC-MW92C-041917

4/Trip Blank
VOCs

TB-041817		
TB-041917	TB-042017	TB-042117

Overview

The sample set for LMC-MRC Groundwater, SDG 240-78295-1 consisted of seventeen (17) aqueous environmental samples and four (4) trip blanks analyzed for the aforementioned parameters. Three (3) field duplicate sample pairs, MRC-MW93A-041417 (SDG 240-78035-1) / MRC-DUP12-041917, MRC-MW100B-041817 / MRC-DUP11-041817 and MRC-MW08B-042117 / MRC-DUP13-042117 were associated with this SDG.

The samples were collected by Tetra Tech, Inc. on March 18, 19, 20 and 21, 2017 and analyzed by TestAmerica-Canton and TestAmerica-Burlington. All analyses were conducted in accordance with SW-846 Methods 8260C, 6010C, 6020A, 7470A and 9060, EPA method 522, method RSK-175, Standard Methods 2320B-1997, 4500 NH3 C-1997, 4500 P E-1999, 2540C and 4500 P E and Methods for Chemical Analysis

of Water and Wastes 300.0 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/preparation/trip blank results, Interference Check Sample (ICS) recoveries, surrogate spike recoveries, laboratory control sample / laboratory control sample duplicate results, matrix spike / matrix spike duplicate recoveries, ICP serial dilution results, laboratory duplicate results, field duplicate results, internal standard areas and recoveries, chromatographic resolution, analyte identification, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The VOC continuing calibration performed on instrument A3UX12 on 04/27/17 @ 17:12 had a percent difference (%D) for dichlorodifluoromethane which exceeded the quality control limit. Samples TB-042117, MRC-MW25A-042117 and MRC-MW08B-042117 were affected. The non-detected result reported for dichlorodifluoromethane in the affected samples were qualified as estimated, (UJ).

- The VOC continuing calibration performed on instrument A3UX16 on 04/24/17 @ 16:46 had %Ds for dichlorodifluoromethane, trichlorofluoromethane and 1,1,2-trichloro-1,2,2-trifluoroethane which exceeded the quality control limits. Samples TB-041817, MRC-MW14B-041817, MRC-MW100A-041817, MRC-MW100B-041817 and MRC-MW72B-041817 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated, (UJ).

- The following analytes were detected in the laboratory instrument/method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Reporting Limit (RL) > or <
Antimony(1)	0.179 ug/L	< RL
Beryllium(2)	0.0640 ug/L	< RL
Beryllium(3)	0.0960 ug/L	< RL
Cobalt(1)	0.0260 ug/L	< RL
Lead(1)	0.266 ug/L	< RL
Iron(4)	25.4 ug/L	< RL
Sodium(4)	390 ug/L	< RL
Manganese(5)	0.420 ug/L	< RL
Barium(6)	1.86 ug/L	< RL
Copper(6)	0.901 ug/L	< RL
Iron(6)	14.8 ug/L	< RL
Manganese(6)	0.883 ug/L	< RL
Lead(6)	0.179 ug/L	< RL
Orthophosphate(7)	0.00878	< RL

(1) Maximum concentration present in an instrument blank affecting samples MRC-MW14B-041817, MRC-MW48A-041917, MRC-MW72B-041817, MRC-MW81B-041917 and MRC-MW92C-041917.
(2) Maximum concentration present in an instrument blank affecting samples MRC-MW14B-041817, MRC-MW72B-041817, MRC-MW81B-041917 and MRC-MW92C-041917.

(3) Maximum concentration present in an instrument blank affecting sample MRC-MW48A-041917.
(4) Maximum concentration present in a method blank affecting sample MRC-MW25A-042117 (preparation batch 276308).
(5) Maximum concentration present in a method blank affecting samples MRC-MW14B-041817 and MRC-MW72B-041817 (preparation batch 275590).
(6) Maximum concentration present in a method blank affecting samples MRC-MW81B-041917, MRC-MW92C-041917 and MRC-MW48A-041917 (preparation batch 275710).
(7) Maximum concentration present in an instrument blank affecting samples MRC-MW72B-041817 and MRC-MW14B-041817.

The detected results reported below the reporting limit (RL) for antimony, beryllium, copper, lead and orthophosphate were qualified as non-detected, (U).

- The matrix spike / matrix spike duplicate (MS/MSD) percent recoveries (%Rs) for mercury were below the quality control limits for sample MRC-MW48A-041917 (preparation batch 275712). The nondetected results reported for mercury in the affected samples were qualified as estimated "UJ".

- Field duplicate imprecision (RPD > 50% or difference > 2X reporting limit) was noted for cis-1,2-dichloroethene and trichloroethene for sample pair MRC-MW93A-041417 / MRC-DUP12-041917. The detected results reported for the aforementioned analytes were qualified as estimated, (J).

- Detected results reported below the RL but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Samples MRC-MW100B-041817, MRC-MW72B-041817, MRC-MW81B-041917, MRC-MW48A-041917, MRC-MW98B-042017, MRC-MW111B-042017 and MRC-MW25A-042117 were analyzed at a dilution for the VOC analyses. Samples MRC-MW14B-041817, MRC-MW100B-041817, MRC-DUP11-041817, MRC-MW98B-042017 and MRC-MW111B-042017 were analyzed at a dilution for the 1,4-Dioxane analyses. Samples MRC-MW81B-041917 and MRC48A-041917 were analyzed at a dilution for the dissolved gases analyses. Sample MRC-MW14B-041817 was analyzed at a dilution for methane. Sample MRC-MW25A-042117 was analyzed at a dilution for orthophosphate. The detection limits of the non-detected results were elevated.

For the metals analyses, calcium, iron, magnesium, manganese, potassium, silicon dioxide and sodium were analyzed by SW-846 method 6010C. The remaining metals, with the exception of mercury, were analyzed by SW-846 method 6020A.

The following compounds were detected in the trip blank at the maximum concentration indicated below:

Compound	Concentration	Action Level
Acetone(1)	4.5 ug/L	45 ug/L
Bromodichloromethane(1)	3.4 ug/L	17 ug/L
Chlorodibromomethane(1)	0.78 ug/L	3.9 ug/L
Chloroform(1)	8.7 ug/L	43.5 ug/L

(1) Maximum concentration present in trip blank TB-042017 affecting samples MRC-MW98A-042017, MRC-MW98B-042017, MRC-MW111A-042017 and MRC-0W111B-042017.

An action level of 10X the maximum concentration for common laboratory contaminants and 5X the maximum concentration for the remaining compounds was established to evaluate for blank contamination. Dilution factors, if necessary, were taken into consideration during the application of the action level. No validation actions were warranted as all sample results were nondetects. Field blanks are not qualified for method blank contamination.

The MS/MSD relative percent difference (RPD) for methylene chloride for sample MRC-MW25A-042117 was outside the quality control limit. No validation actions were warranted based on MS/MSD RPDs alone.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Several CCV %Ds were noncompliant for the VOC fraction. Contaminants were detected in the laboratory instrument/method blanks. MS/MSD recoveries were noncompliant in the metals fraction. Field duplicate imprecision was noted for sample pair MRC-MW93A-041417 / MRC-DUP12-041917.

Other Factors Affecting Data Quality: Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and the "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-DUP12-041917			MRC-MW08B-042117			MRC-MW100A-041817			MRC-MW100B-041817		
SDG: 240-78295-1	LAB_ID	240-78379-5			240-78519-3			240-78295-3			240-78295-4		
FRACTION: OV	SAMP_DATE	4/19/2017			4/21/2017			4/18/2017			4/18/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW93A-041417											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		1.2	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		1.6	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		1.7	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	UJ	C	2.1	UJ	C
1,1-DICHLOROETHANE		0.25	U		0.25	U		2.1			25		
1,1-DICHLOROETHENE		0.27	U		0.27	U		1.4			76		
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		1.4	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		2.4	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		1.2	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		1.3	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		1.5	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		1.5	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		1.6	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		1.2	U	
2-BUTANONE		1	U		1	U		1	U		5.1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		6.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		3.6	U	
ACETONE		1.8	U		1.8	U		1.8	U		8.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		1.4	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		1.5	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		2.2	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		2.1	U	
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		1.7	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		1.8	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		1.6	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		1.3	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		2.1	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		1.6	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		2.2	U	
CIS-1,2-DICHLOROETHENE		5.9	J	G	0.3	U		0.92	J	P	34		
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		1.3	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		2.2	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	UJ	C	0.5	UJ	C	2.5	UJ	C
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		1.3	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		1.1	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW111A-042017			MRC-MW111B-042017			MRC-MW14B-041817			MRC-MW25A-042117		
SDG: 240-78295-1	LAB_ID	240-78454-4			240-78454-5			240-78295-2			240-78519-2		
FRACTION: OV	SAMP_DATE	4/20/2017			4/20/2017			4/18/2017			4/21/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		2.9	U		0.23	U		1.2	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		4	U		0.32	U		1.6	U	
1,1,2-TRICHLOROETHANE		0.34	U		4.3	U		0.34	U		1.7	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		5.1	U		0.41	UJ	C	2.1	U	
1,1-DICHLOROETHANE		0.25	U		43			0.64	J	P	1.3	U	
1,1-DICHLOROETHENE		0.27	U		170			0.27	U		1.4	U	
1,2,4-TRICHLOROBENZENE		0.27	U		3.4	U		0.27	U		1.4	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		5.9	U		0.47	U		2.4	U	
1,2-DIBROMOETHANE		0.23	U		2.9	U		0.23	U		1.2	U	
1,2-DICHLOROBENZENE		0.26	U		3.3	U		0.26	U		1.3	U	
1,2-DICHLOROETHANE		0.3	U		3.8	U		0.3	U		1.5	U	
1,2-DICHLOROPROPANE		0.3	U		3.8	U		0.3	U		1.5	U	
1,3-DICHLOROBENZENE		0.32	U		4	U		0.32	U		1.6	U	
1,4-DICHLOROBENZENE		0.23	U		2.9	U		0.23	U		1.2	U	
2-BUTANONE		1	U		13	U		14			5.1	U	
2-HEXANONE		1.2	U		15	U		1.2	U		6.2	U	
4-METHYL-2-PENTANONE		0.71	U		8.9	U		1.1	J	P	3.6	U	
ACETONE		1.8	U		22	U		5.3	J	P	8.8	U	
BENZENE		0.28	U		3.5	U		15			1.4	U	
BROMODICHLOROMETHANE		0.3	U		3.8	U		0.3	U		1.5	U	
BROMOFORM		0.43	U		5.4	U		0.43	U		2.2	U	
BROMOMETHANE		0.42	U		5.3	U		0.42	U		2.1	U	
CARBON DISULFIDE		0.34	U		4.3	U		0.34	U		1.7	U	
CARBON TETRACHLORIDE		0.35	U		4.4	U		0.35	U		1.8	U	
CHLOROBENZENE		0.32	U		4	U		0.32	U		1.6	U	
CHLORODIBROMOMETHANE		0.25	U		3.1	U		0.25	U		1.3	U	
CHLOROETHANE		0.41	U		5.1	U		19			2.1	U	
CHLOROFORM		0.31	U		3.9	U		0.31	U		1.6	U	
CHLOROMETHANE		0.43	U		5.4	U		0.43	U		2.2	U	
CIS-1,2-DICHLOROETHENE		0.3	U		41			0.3	U		7.2		
CIS-1,3-DICHLOROPROPENE		0.26	U		3.3	U		0.26	U		1.3	U	
CYCLOHEXANE		0.44	U		5.5	U		0.44	U		2.2	U	
DICHLORODIFLUOROMETHANE		0.5	U		6.3	U		0.5	UJ	C	2.5	UJ	C
ETHYLBENZENE		0.26	U		3.3	U		0.26	U		1.3	U	
ISOPROPYLBENZENE		0.21	U		2.6	U		0.32	J	P	1.1	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW48A-041917			MRC-MW72B-041817			MRC-MW81B-041917			MRC-MW92C-041917		
SDG: 240-78295-1	LAB_ID	240-78379-4			240-78295-5			240-78379-2			240-78379-3		
FRACTION: OV	SAMP_DATE	4/19/2017			4/18/2017			4/19/2017			4/19/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		12	U		23	U		2.3	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		16	U		32	U		3.2	U		0.32	U	
1,1,2-TRICHLOROETHANE		17	U		34	U		3.4	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		21	U		41	UJ	C	4.1	U		0.41	U	
1,1-DICHLOROETHANE		13	U		25	U		5.8	J	P	0.25	U	
1,1-DICHLOROETHENE		23	J	P	27	U		3.3	J	P	0.27	U	
1,2,4-TRICHLOROBENZENE		14	U		27	U		2.7	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		24	U		47	U		4.7	U		0.47	U	
1,2-DIBROMOETHANE		12	U		23	U		2.3	U		0.23	U	
1,2-DICHLOROBENZENE		13	U		26	U		2.6	U		0.26	U	
1,2-DICHLOROETHANE		15	U		30	U		3	U		0.3	U	
1,2-DICHLOROPROPANE		15	U		30	U		3	U		0.3	U	
1,3-DICHLOROBENZENE		16	U		32	U		3.2	U		0.32	U	
1,4-DICHLOROBENZENE		12	U		23	U		2.3	U		0.23	U	
2-BUTANONE		51	U		100	U		10	U		1	U	
2-HEXANONE		62	U		120	U		12	U		1.2	U	
4-METHYL-2-PENTANONE		36	U		71	U		7.1	U		0.71	U	
ACETONE		88	U		180	U		18	U		1.8	U	
BENZENE		14	U		28	U		2.8	U		0.28	U	
BROMODICHLOROMETHANE		15	U		30	U		3	U		0.3	U	
BROMOFORM		22	U		43	U		4.3	U		0.43	U	
BROMOMETHANE		21	U		42	U		4.2	U		0.42	U	
CARBON DISULFIDE		17	U		34	U		3.4	U		0.34	U	
CARBON TETRACHLORIDE		18	U		35	U		3.5	U		0.35	U	
CHLOROBENZENE		16	U		32	U		3.2	U		0.32	U	
CHLORODIBROMOMETHANE		13	U		25	U		2.5	U		0.25	U	
CHLOROETHANE		21	U		41	U		4.1	U		0.41	U	
CHLOROFORM		16	U		31	U		3.1	U		0.31	U	
CHLOROMETHANE		22	U		43	U		4.3	U		0.43	U	
CIS-1,2-DICHLOROETHENE		2000			260			300			5.7		
CIS-1,3-DICHLOROPROPENE		13	U		26	U		2.6	U		0.26	U	
CYCLOHEXANE		22	U		44	U		4.4	U		0.44	U	
DICHLORODIFLUOROMETHANE		25	U		50	UJ	C	5	U		0.5	U	
ETHYLBENZENE		13	U		26	U		2.6	U		0.26	U	
ISOPROPYLBENZENE		11	U		21	U		2.1	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW98A-042017			MRC-MW98B-042017			TB-041817			TB-041917		
SDG: 240-78295-1	LAB_ID	240-78454-2			240-78454-3			240-78295-1			240-78379-1		
FRACTION: OV	SAMP_DATE	4/20/2017			4/20/2017			4/18/2017			4/19/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		14			0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		4	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		4.3	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		5.1	U		0.41	UJ	C	0.41	U	
1,1-DICHLOROETHANE		0.82	J	P	74			0.25	U		0.25	U	
1,1-DICHLOROETHENE		1			170			0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		3.4	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		5.9	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		2.9	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		3.3	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		3.8	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		3.8	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		4	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		2.9	U		0.23	U		0.23	U	
2-BUTANONE		1	U		13	U		1	U		1	U	
2-HEXANONE		1.2	U		15	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		8.9	U		0.71	U		0.71	U	
ACETONE		1.8	U		22	U		1.8	U		1.8	U	
BENZENE		0.28	U		3.5	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		3.8	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		5.4	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		5.3	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	U		4.3	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		4.4	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		4	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		3.1	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		19			0.41	U		0.41	U	
CHLOROFORM		0.31	U		3.9	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		5.4	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		17			0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		3.3	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		5.5	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		6.3	U		0.5	UJ	C	0.5	U	
ETHYLBENZENE		0.26	U		3.3	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		2.6	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	TB-042017			TB-042117		
SDG: 240-78295-1	LAB_ID	240-78454-1			240-78519-1		
FRACTION: OV	SAMP_DATE	4/20/2017			4/21/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U	
ACETONE		4.5	J	P	1.8	U	
BENZENE		0.28	U		0.28	U	
BROMODICHLOROMETHANE		3.4			0.3	U	
BROMOFORM		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.78	J	P	0.25	U	
CHLOROETHANE		0.41	U		0.41	U	
CHLOROFORM		8.7			0.31	U	
CHLOROMETHANE		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-DUP12-041917			MRC-MW08B-042117			MRC-MW100A-041817			MRC-MW100B-041817		
SDG: 240-78295-1	LAB_ID	240-78379-5			240-78519-3			240-78295-3			240-78295-4		
FRACTION: OV	SAMP_DATE	4/19/2017			4/21/2017			4/18/2017			4/18/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW93A-041417											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		7.2	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		2.3	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		1.4	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		2.7	U	
STYRENE		0.23	U		0.23	U		0.23	U		1.2	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		1.5	U	
TOLUENE		0.23	U		0.23	U		0.23	U		1.2	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		1.2	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		1.5	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		1.6	U	
TRICHLOROETHENE		5.7	J	G	0.34	J	P	6			200		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	UJ	C	2.5	UJ	C
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		2.3	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW111A-042017			MRC-MW111B-042017			MRC-MW14B-041817			MRC-MW25A-042117		
SDG: 240-78295-1	LAB_ID	240-78454-4			240-78454-5			240-78295-2			240-78519-2		
FRACTION: OV	SAMP_DATE	4/20/2017			4/20/2017			4/18/2017			4/21/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		18	U		1.4	U		7.2	U	
METHYL CYCLOHEXANE		0.45	U		5.6	U		0.45	U		2.3	U	
METHYL TERT-BUTYL ETHER		0.27	U		3.4	U		0.27	U		1.4	U	
METHYLENE CHLORIDE		0.53	U		6.6	U		0.53	U		2.7	U F2	
STYRENE		0.23	U		2.9	U		0.23	U		1.2	U	
TETRACHLOROETHENE		0.3	U		3.8	U		0.3	U		1.5	U	
TOLUENE		0.23	U		2.9	U		0.23	U		1.2	U	
TOTAL XYLENES		0.24	U		3	U		0.24	U		1.2	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		3.6	U		0.35	J	P	1.5	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		3.9	U		0.31	U		1.6	U	
TRICHLOROETHENE		0.33	U		410			0.78	J	P	170		
TRICHLOROFLUOROMETHANE		0.5	U		6.3	U		0.5	UJ	C	2.5	U	
VINYL CHLORIDE		0.45	U		5.6	U		0.45	U		2.3	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW48A-041917			MRC-MW72B-041817			MRC-MW81B-041917			MRC-MW92C-041917		
SDG: 240-78295-1	LAB_ID	240-78379-4			240-78295-5			240-78379-2			240-78379-3		
FRACTION: OV	SAMP_DATE	4/19/2017			4/18/2017			4/19/2017			4/19/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		72	U		140	U		14	U		1.4	U	
METHYL CYCLOHEXANE		23	U		45	U		4.5	U		0.45	U	
METHYL TERT-BUTYL ETHER		14	U		27	U		2.7	U		0.27	U	
METHYLENE CHLORIDE		27	U		53	U		5.3	U		0.53	U	
STYRENE		12	U		23	U		2.3	U		0.23	U	
TETRACHLOROETHENE		15	U		30	U		3	U		0.3	U	
TOLUENE		12	U		23	U		2.3	U		0.23	U	
TOTAL XYLENES		12	U		24	U		2.4	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		19	J	P	29	U		8.7	J	P	0.29	U	
TRANS-1,3-DICHLOROPROPENE		16	U		31	U		3.1	U		0.31	U	
TRICHLOROETHENE		880			3000			27			5.7		
TRICHLOROFLUOROMETHANE		25	U		50	UJ	C	5	U		0.5	U	
VINYL CHLORIDE		200			45	U		220			0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW98A-042017			MRC-MW98B-042017			TB-041817			TB-041917		
SDG: 240-78295-1	LAB_ID	240-78454-2			240-78454-3			240-78295-1			240-78379-1		
FRACTION: OV	SAMP_DATE	4/20/2017			4/20/2017			4/18/2017			4/19/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE	1.4	U		18	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE	0.45	U		5.6	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER	0.27	U		3.4	U		0.27	U		0.27	U	
METHYLENE CHLORIDE	0.53	U		6.6	U		0.53	U		0.53	U	
STYRENE	0.23	U		2.9	U		0.23	U		0.23	U	
TETRACHLOROETHENE	0.3	U		4	J	P	0.3	U		0.3	U	
TOLUENE	0.23	U		2.9	U		0.23	U		0.23	U	
TOTAL XYLENES	0.24	U		3	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE	0.29	U		3.6	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE	0.31	U		3.9	U		0.31	U		0.31	U	
TRICHLOROETHENE	1.2			350			0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE	0.5	U		6.3	U		0.5	UJ	C	0.5	U	
VINYL CHLORIDE	0.45	U		5.6	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	TB-042017			TB-042117		
SDG: 240-78295-1	LAB_ID	240-78454-1			240-78519-1		
FRACTION: OV	SAMP_DATE	4/20/2017			4/21/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-DUP11-041817			MRC-DUP13-042117			MRC-MW08B-042117			MRC-MW100A-041817		
SDG: 240-78295-1	LAB_ID	240-78295-6			240-78519-4			240-78519-3			240-78295-3		
FRACTION: OS	SAMP_DATE	4/18/2017			4/21/2017			4/21/2017			4/18/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	MRC-MW100B-041817			MRC-MW08B-042117								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		90			0.13	J	P	0.17	J	P	2.4		

PROJ_NO: 07776	NSAMPLE	MRC-MW100B-041817			MRC-MW111A-042017			MRC-MW111B-042017			MRC-MW14B-041817		
SDG: 240-78295-1	LAB_ID	240-78295-4			240-78454-4			240-78454-5			240-78295-2		
FRACTION: OS	SAMP_DATE	4/18/2017			4/20/2017			4/20/2017			4/18/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		89			0.64			170			180		

PROJ_NO: 07776	NSAMPLE	MRC-MW25A-042117			MRC-MW48A-041917			MRC-MW72B-041817			MRC-MW81B-041917		
SDG: 240-78295-1	LAB_ID	240-78519-2			240-78379-4			240-78295-5			240-78379-2		
FRACTION: OS	SAMP_DATE	4/21/2017			4/19/2017			4/18/2017			4/19/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		4.5			6			0.21			3.9		

PROJ_NO: 07776	NSAMPLE	MRC-MW92C-041917			MRC-MW98A-042017			MRC-MW98B-042017		
SDG: 240-78295-1	LAB_ID	240-78379-3			240-78454-2			240-78454-3		
FRACTION: OS	SAMP_DATE	4/19/2017			4/20/2017			4/20/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.095	J	P	1.1			140		

PROJ_NO: 07776	NSAMPLE	MRC-MW14B-041817			MRC-MW25A-042117			MRC-MW48A-041917			MRC-MW72B-041817		
SDG: 240-78295-1	LAB_ID	240-78295-2			240-78519-2			240-78379-4			240-78295-5		
FRACTION: OVG	SAMP_DATE	4/18/2017			4/21/2017			4/19/2017			4/18/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHANE		22			0.14	U		7.5			0.14	U	
ETHENE		4.2			0.13	U		48			0.13	U	
METHANE		4000			12			4300			1.2		

PROJ_NO: 07776	NSAMPLE	MRC-MW81B-041917		
SDG: 240-78295-1	LAB_ID	240-78379-2		
FRACTION: OVG	SAMP_DATE	4/19/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ETHANE		24		
ETHENE		170		
METHANE		3600		

PROJ_NO: 07776	NSAMPLE	MRC-MW14B-041817			MRC-MW25A-042117			MRC-MW48A-041917			MRC-MW72B-041817		
SDG: 240-78295-1	LAB_ID	240-78295-2			240-78519-2			240-78379-4			240-78295-5		
FRACTION: M	SAMP_DATE	4/18/2017			4/21/2017			4/19/2017			4/18/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.46	U	A				0.43	U	A	0.27	U	
ARSENIC		4.4	J	P				2.9	J	P	0.35	U	
BARIUM		150						150			19		
BERYLLIUM		0.4	U					2.3			0.77	U	A
CADMIUM		0.31	U					0.31	U		0.31	U	
CALCIUM		12000			15000			1800	J	P	2200	J	P
CHROMIUM		1.2	J	P				0.38	J	P	0.55	J	P
COBALT		26						130			7		
COPPER		0.94	J	P				0.43	U	A	1.3	J	P
IRON		64000			25000			84000			250		
LEAD		0.64	U	A				0.41	U	A	0.59	U	A
MAGNESIUM		12000			7400			14000			1000	J	P
MANGANESE		2000			3900			11000			43		
MERCURY		0.13	U					0.13	UJ	D	0.13	U	
MOLYBDENUM		1.2	J	P				0.51	U		0.51	U	
NICKEL		34						34			12		
POTASSIUM		2900	J	P	2400	J	P	330	J	P	1500	J	P
SELENIUM		0.67	J	P				1.3	J	P	0.48	U	
SILICON DIOXIDE		12000			11000			15000			8800		
SILVER		0.03	U					0.03	U		0.03	U	
SODIUM		300000			83000			51000			8300		
THALLIUM		0.28	U					0.28	U		0.28	U	
VANADIUM		5.6						0.54	U		0.8	J	P
ZINC		6.5	J	P				6.2	U		61		

PROJ_NO: 07776	NSAMPLE	MRC-MW81B-041917			MRC-MW92C-041917		
SDG: 240-78295-1	LAB_ID	240-78379-2			240-78379-3		
FRACTION: M	SAMP_DATE	4/19/2017			4/19/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.48	U	A	0.27	U	
ARSENIC		0.6	J	P	0.35	U	
BARIUM		190			97		
BERYLLIUM		0.41	U	A	0.4	U	
CADMIUM		0.31	U		0.31	U	
CALCIUM		33000					
CHROMIUM		0.49	J	P	1.2	J	P
COBALT		13			2.3		
COPPER		0.36	U		0.36	U	
IRON		32000					
LEAD		0.53	U	A	0.41	U	A
MAGNESIUM		4600	J	P			
MANGANESE		1400					
MERCURY		0.13	UJ	D	0.13	UJ	D
MOLYBDENUM		0.6	J	P	0.51	U	
NICKEL		24			12		
POTASSIUM		1500	J	P			
SELENIUM		0.51	J	P	0.48	U	
SILICON DIOXIDE		14000					
SILVER		0.03	U		0.03	U	
SODIUM		76000					
THALLIUM		0.28	U		0.28	U	
VANADIUM		0.54	U		0.54	U	
ZINC		6.2	U		6.8	J	P

PROJ_NO: 07776	NSAMPLE	MRC-MW14B-041817			MRC-MW25A-042117			MRC-MW48A-041917			MRC-MW72B-041817		
SDG: 240-78295-1	LAB_ID	240-78295-2			240-78519-2			240-78379-4			240-78295-5		
FRACTION: MISC	SAMP_DATE	4/18/2017			4/21/2017			4/19/2017			4/18/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			MG/L			MG/L			MG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY		600			26			79			5.3		
AMMONIA		0.87	U		0.87	U		0.87	U		0.87	U	
CHLORIDE		82			170			120			14		
DISSOLVED ORGANIC CARBON		15			1			7.5			0.27	J	P
NITRATE-N		0.035	U		0.035	U		0.31			0.44		
NITRITE-N		0.038	U		0.038	U		0.038	U		0.11		
ORTHOPHOSPHATE-P		0.26	U	A	0.05	U		0.035	J	P	0.056	U	A
SULFATE		0.13	U		3.9			6.6			1.3		
TOTAL DISSOLVED SOLIDS		850			370			340			22		

PROJ_NO: 07776	NSAMPLE	MRC-MW81B-041917		
SDG: 240-78295-1	LAB_ID	240-78379-2		
FRACTION: MISC	SAMP_DATE	4/19/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	MG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ALKALINITY		150		
AMMONIA		0.87	U	
CHLORIDE		77		
DISSOLVED ORGANIC CARBON		1.2		
NITRATE-N		0.046	J	P
NITRITE-N		0.038	U	
ORTHOPHOSPHATE-P		0.097	J	P
SULFATE		2.7		
TOTAL DISSOLVED SOLIDS		290		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: TB-041817 | Lab Sample ID: 240-78295-1

Matrix: Water | Lab File ID: UXM1882.D

Analysis Method: 8260C | Date Collected: 04/18/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/24/2017 23:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: TB-041817 | Lab Sample ID: 240-78295-1

Matrix: Water | Lab File ID: UXM1882.D

Analysis Method: 8260C | Date Collected: 04/18/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/24/2017 23:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	92		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW14B-041817 | Lab Sample ID: 240-78295-2

Matrix: Water | Lab File ID: UXM1883.D

Analysis Method: 8260C | Date Collected: 04/18/2017 08:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/24/2017 23:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.64	J	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	14		10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	1.1	J	10	0.71
67-64-1	Acetone	5.3	J	10	1.8
71-43-2	Benzene	15		1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	19		1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.32	J	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW14B-041817 | Lab Sample ID: 240-78295-2

Matrix: Water | Lab File ID: UXM1883.D

Analysis Method: 8260C | Date Collected: 04/18/2017 08:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/24/2017 23:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.35	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.78	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW100A-041817 | Lab Sample ID: 240-78295-3

Matrix: Water | Lab File ID: UXM1884.D

Analysis Method: 8260C | Date Collected: 04/18/2017 10:53

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 00:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	2.1		1.0	0.25
75-35-4	1,1-Dichloroethene	1.4		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.92	J	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW100A-041817 | Lab Sample ID: 240-78295-3

Matrix: Water | Lab File ID: UXM1884.D

Analysis Method: 8260C | Date Collected: 04/18/2017 10:53

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 00:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	6.0		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW100B-041817 | Lab Sample ID: 240-78295-4

Matrix: Water | Lab File ID: UXM1885.D

Analysis Method: 8260C | Date Collected: 04/18/2017 12:43

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 01:07

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1.2	U	5.0	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.6	U	5.0	1.6
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.1	U	5.0	2.1
79-00-5	1,1,2-Trichloroethane	1.7	U	5.0	1.7
75-34-3	1,1-Dichloroethane	25		5.0	1.3
75-35-4	1,1-Dichloroethene	76		5.0	1.4
120-82-1	1,2,4-Trichlorobenzene	1.4	U	5.0	1.4
96-12-8	1,2-Dibromo-3-Chloropropane	2.4	U	10	2.4
106-93-4	Ethylene Dibromide	1.2	U	5.0	1.2
95-50-1	1,2-Dichlorobenzene	1.3	U	5.0	1.3
107-06-2	1,2-Dichloroethane	1.5	U	5.0	1.5
78-87-5	1,2-Dichloropropane	1.5	U	5.0	1.5
541-73-1	1,3-Dichlorobenzene	1.6	U	5.0	1.6
106-46-7	1,4-Dichlorobenzene	1.2	U	5.0	1.2
78-93-3	2-Butanone (MEK)	5.1	U	50	5.1
591-78-6	2-Hexanone	6.2	U	50	6.2
108-10-1	4-Methyl-2-pentanone (MIBK)	3.6	U	50	3.6
67-64-1	Acetone	8.8	U	50	8.8
71-43-2	Benzene	1.4	U	5.0	1.4
75-27-4	Dichlorobromomethane	1.5	U	5.0	1.5
75-25-2	Bromoform	2.2	U	5.0	2.2
74-83-9	Bromomethane	2.1	U	5.0	2.1
75-15-0	Carbon disulfide	1.7	U	5.0	1.7
56-23-5	Carbon tetrachloride	1.8	U	5.0	1.8
108-90-7	Chlorobenzene	1.6	U	5.0	1.6
75-00-3	Chloroethane	2.1	U	5.0	2.1
67-66-3	Chloroform	1.6	U	5.0	1.6
74-87-3	Chloromethane	2.2	U	5.0	2.2
156-59-2	cis-1,2-Dichloroethene	34		5.0	1.5
10061-01-5	cis-1,3-Dichloropropene	1.3	U	5.0	1.3
110-82-7	Cyclohexane	2.2	U	5.0	2.2
124-48-1	Chlorodibromomethane	1.3	U	5.0	1.3
75-71-8	Dichlorodifluoromethane	2.5	U	5.0	2.5
100-41-4	Ethylbenzene	1.3	U	5.0	1.3
98-82-8	Isopropylbenzene	1.1	U	5.0	1.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW100B-041817 | Lab Sample ID: 240-78295-4

Matrix: Water | Lab File ID: UXM1885.D

Analysis Method: 8260C | Date Collected: 04/18/2017 12:43

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 01:07

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	7.2	U	50	7.2
1634-04-4	Methyl tert-butyl ether	1.4	U	5.0	1.4
108-87-2	Methylcyclohexane	2.3	U	5.0	2.3
75-09-2	Methylene Chloride	2.7	U	5.0	2.7
100-42-5	Styrene	1.2	U	5.0	1.2
127-18-4	Tetrachloroethene	1.5	U	5.0	1.5
108-88-3	Toluene	1.2	U	5.0	1.2
156-60-5	trans-1,2-Dichloroethene	1.5	U	5.0	1.5
10061-02-6	trans-1,3-Dichloropropene	1.6	U	5.0	1.6
79-01-6	Trichloroethene	200		5.0	1.7
75-69-4	Trichlorofluoromethane	2.5	U	5.0	2.5
75-01-4	Vinyl chloride	2.3	U	5.0	2.3
1330-20-7	Xylenes, Total	1.2	U	10	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW72B-041817 | Lab Sample ID: 240-78295-5

Matrix: Water | Lab File ID: UXM1886.D

Analysis Method: 8260C | Date Collected: 04/18/2017 15:09

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 01:30

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	23	U	100	23
79-34-5	1,1,2,2-Tetrachloroethane	32	U	100	32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	41	U	100	41
79-00-5	1,1,2-Trichloroethane	34	U	100	34
75-34-3	1,1-Dichloroethane	25	U	100	25
75-35-4	1,1-Dichloroethene	27	U	100	27
120-82-1	1,2,4-Trichlorobenzene	27	U	100	27
96-12-8	1,2-Dibromo-3-Chloropropane	47	U	200	47
106-93-4	Ethylene Dibromide	23	U	100	23
95-50-1	1,2-Dichlorobenzene	26	U	100	26
107-06-2	1,2-Dichloroethane	30	U	100	30
78-87-5	1,2-Dichloropropane	30	U	100	30
541-73-1	1,3-Dichlorobenzene	32	U	100	32
106-46-7	1,4-Dichlorobenzene	23	U	100	23
78-93-3	2-Butanone (MEK)	100	U	1000	100
591-78-6	2-Hexanone	120	U	1000	120
108-10-1	4-Methyl-2-pentanone (MIBK)	71	U	1000	71
67-64-1	Acetone	180	U	1000	180
71-43-2	Benzene	28	U	100	28
75-27-4	Dichlorobromomethane	30	U	100	30
75-25-2	Bromoform	43	U	100	43
74-83-9	Bromomethane	42	U	100	42
75-15-0	Carbon disulfide	34	U	100	34
56-23-5	Carbon tetrachloride	35	U	100	35
108-90-7	Chlorobenzene	32	U	100	32
75-00-3	Chloroethane	41	U	100	41
67-66-3	Chloroform	31	U	100	31
74-87-3	Chloromethane	43	U	100	43
156-59-2	cis-1,2-Dichloroethene	260		100	30
10061-01-5	cis-1,3-Dichloropropene	26	U	100	26
110-82-7	Cyclohexane	44	U	100	44
124-48-1	Chlorodibromomethane	25	U	100	25
75-71-8	Dichlorodifluoromethane	50	U	100	50
100-41-4	Ethylbenzene	26	U	100	26
98-82-8	Isopropylbenzene	21	U	100	21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW72B-041817 | Lab Sample ID: 240-78295-5

Matrix: Water | Lab File ID: UXM1886.D

Analysis Method: 8260C | Date Collected: 04/18/2017 15:09

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 01:30

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	140	U	1000	140
1634-04-4	Methyl tert-butyl ether	27	U	100	27
108-87-2	Methylcyclohexane	45	U	100	45
75-09-2	Methylene Chloride	53	U	100	53
100-42-5	Styrene	23	U	100	23
127-18-4	Tetrachloroethene	30	U	100	30
108-88-3	Toluene	23	U	100	23
156-60-5	trans-1,2-Dichloroethene	29	U	100	29
10061-02-6	trans-1,3-Dichloropropene	31	U	100	31
79-01-6	Trichloroethene	3000		100	33
75-69-4	Trichlorofluoromethane	50	U	100	50
75-01-4	Vinyl chloride	45	U	100	45
1330-20-7	Xylenes, Total	24	U	200	24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: TB-041917 | Lab Sample ID: 240-78379-1

Matrix: Water | Lab File ID: UXM1912.D

Analysis Method: 8260C | Date Collected: 04/19/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 14:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: TB-041917 | Lab Sample ID: 240-78379-1

Matrix: Water | Lab File ID: UXM1912.D

Analysis Method: 8260C | Date Collected: 04/19/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 14:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	88		69-124
460-00-4	4-Bromofluorobenzene (Surr)	100		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW81B-041917 | Lab Sample ID: 240-78379-2

Matrix: Water | Lab File ID: UXM1913.D

Analysis Method: 8260C | Date Collected: 04/19/2017 10:04

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 14:50

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.3	U	10	2.3
79-34-5	1,1,2,2-Tetrachloroethane	3.2	U	10	3.2
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	4.1	U	10	4.1
79-00-5	1,1,2-Trichloroethane	3.4	U	10	3.4
75-34-3	1,1-Dichloroethane	5.8	J	10	2.5
75-35-4	1,1-Dichloroethene	3.3	J	10	2.7
120-82-1	1,2,4-Trichlorobenzene	2.7	U	10	2.7
96-12-8	1,2-Dibromo-3-Chloropropane	4.7	U	20	4.7
106-93-4	Ethylene Dibromide	2.3	U	10	2.3
95-50-1	1,2-Dichlorobenzene	2.6	U	10	2.6
107-06-2	1,2-Dichloroethane	3.0	U	10	3.0
78-87-5	1,2-Dichloropropane	3.0	U	10	3.0
541-73-1	1,3-Dichlorobenzene	3.2	U	10	3.2
106-46-7	1,4-Dichlorobenzene	2.3	U	10	2.3
78-93-3	2-Butanone (MEK)	10	U	100	10
591-78-6	2-Hexanone	12	U	100	12
108-10-1	4-Methyl-2-pentanone (MIBK)	7.1	U	100	7.1
67-64-1	Acetone	18	U	100	18
71-43-2	Benzene	2.8	U	10	2.8
75-27-4	Dichlorobromomethane	3.0	U	10	3.0
75-25-2	Bromoform	4.3	U	10	4.3
74-83-9	Bromomethane	4.2	U	10	4.2
75-15-0	Carbon disulfide	3.4	U	10	3.4
56-23-5	Carbon tetrachloride	3.5	U	10	3.5
108-90-7	Chlorobenzene	3.2	U	10	3.2
75-00-3	Chloroethane	4.1	U	10	4.1
67-66-3	Chloroform	3.1	U	10	3.1
74-87-3	Chloromethane	4.3	U	10	4.3
156-59-2	cis-1,2-Dichloroethene	300		10	3.0
10061-01-5	cis-1,3-Dichloropropene	2.6	U	10	2.6
110-82-7	Cyclohexane	4.4	U	10	4.4
124-48-1	Chlorodibromomethane	2.5	U	10	2.5
75-71-8	Dichlorodifluoromethane	5.0	U	10	5.0
100-41-4	Ethylbenzene	2.6	U	10	2.6
98-82-8	Isopropylbenzene	2.1	U	10	2.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW81B-041917 | Lab Sample ID: 240-78379-2

Matrix: Water | Lab File ID: UXM1913.D

Analysis Method: 8260C | Date Collected: 04/19/2017 10:04

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 14:50

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	14	U	100	14
1634-04-4	Methyl tert-butyl ether	2.7	U	10	2.7
108-87-2	Methylcyclohexane	4.5	U	10	4.5
75-09-2	Methylene Chloride	5.3	U	10	5.3
100-42-5	Styrene	2.3	U	10	2.3
127-18-4	Tetrachloroethene	3.0	U	10	3.0
108-88-3	Toluene	2.3	U	10	2.3
156-60-5	trans-1,2-Dichloroethene	8.7	J	10	2.9
10061-02-6	trans-1,3-Dichloropropene	3.1	U	10	3.1
79-01-6	Trichloroethene	27		10	3.3
75-69-4	Trichlorofluoromethane	5.0	U	10	5.0
75-01-4	Vinyl chloride	220		10	4.5
1330-20-7	Xylenes, Total	2.4	U	20	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	88		69-124
460-00-4	4-Bromofluorobenzene (Surr)	98		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW92C-041917 | Lab Sample ID: 240-78379-3

Matrix: Water | Lab File ID: UXM1914.D

Analysis Method: 8260C | Date Collected: 04/19/2017 12:36

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 15:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	5.7		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW92C-041917 | Lab Sample ID: 240-78379-3

Matrix: Water | Lab File ID: UXM1914.D

Analysis Method: 8260C | Date Collected: 04/19/2017 12:36

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 15:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	5.7		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	86		69-124
460-00-4	4-Bromofluorobenzene (Surr)	99		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW48A-041917 | Lab Sample ID: 240-78379-4

Matrix: Water | Lab File ID: UXM1915.D

Analysis Method: 8260C | Date Collected: 04/19/2017 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 15:36

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	12	U	50	12
79-34-5	1,1,2,2-Tetrachloroethane	16	U	50	16
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	21	U	50	21
79-00-5	1,1,2-Trichloroethane	17	U	50	17
75-34-3	1,1-Dichloroethane	13	U	50	13
75-35-4	1,1-Dichloroethene	23	J	50	14
120-82-1	1,2,4-Trichlorobenzene	14	U	50	14
96-12-8	1,2-Dibromo-3-Chloropropane	24	U	100	24
106-93-4	Ethylene Dibromide	12	U	50	12
95-50-1	1,2-Dichlorobenzene	13	U	50	13
107-06-2	1,2-Dichloroethane	15	U	50	15
78-87-5	1,2-Dichloropropane	15	U	50	15
541-73-1	1,3-Dichlorobenzene	16	U	50	16
106-46-7	1,4-Dichlorobenzene	12	U	50	12
78-93-3	2-Butanone (MEK)	51	U	500	51
591-78-6	2-Hexanone	62	U	500	62
108-10-1	4-Methyl-2-pentanone (MIBK)	36	U	500	36
67-64-1	Acetone	88	U	500	88
71-43-2	Benzene	14	U	50	14
75-27-4	Dichlorobromomethane	15	U	50	15
75-25-2	Bromoform	22	U	50	22
74-83-9	Bromomethane	21	U	50	21
75-15-0	Carbon disulfide	17	U	50	17
56-23-5	Carbon tetrachloride	18	U	50	18
108-90-7	Chlorobenzene	16	U	50	16
75-00-3	Chloroethane	21	U	50	21
67-66-3	Chloroform	16	U	50	16
74-87-3	Chloromethane	22	U	50	22
156-59-2	cis-1,2-Dichloroethene	2000		50	15
10061-01-5	cis-1,3-Dichloropropene	13	U	50	13
110-82-7	Cyclohexane	22	U	50	22
124-48-1	Chlorodibromomethane	13	U	50	13
75-71-8	Dichlorodifluoromethane	25	U	50	25
100-41-4	Ethylbenzene	13	U	50	13
98-82-8	Isopropylbenzene	11	U	50	11

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW48A-041917 | Lab Sample ID: 240-78379-4

Matrix: Water | Lab File ID: UXM1915.D

Analysis Method: 8260C | Date Collected: 04/19/2017 13:53

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 15:36

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	72	U	500	72
1634-04-4	Methyl tert-butyl ether	14	U	50	14
108-87-2	Methylcyclohexane	23	U	50	23
75-09-2	Methylene Chloride	27	U	50	27
100-42-5	Styrene	12	U	50	12
127-18-4	Tetrachloroethene	15	U	50	15
108-88-3	Toluene	12	U	50	12
156-60-5	trans-1,2-Dichloroethene	19	J	50	15
10061-02-6	trans-1,3-Dichloropropene	16	U	50	16
79-01-6	Trichloroethene	880		50	17
75-69-4	Trichlorofluoromethane	25	U	50	25
75-01-4	Vinyl chloride	200		50	23
1330-20-7	Xylenes, Total	12	U	100	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	86		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-DUP12-041917 | Lab Sample ID: 240-78379-5

Matrix: Water | Lab File ID: UXM1916.D

Analysis Method: 8260C | Date Collected: 04/19/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 15:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	5.9		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-DUP12-041917 | Lab Sample ID: 240-78379-5

Matrix: Water | Lab File ID: UXM1916.D

Analysis Method: 8260C | Date Collected: 04/19/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 15:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	5.7		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	86		69-124
460-00-4	4-Bromofluorobenzene (Surr)	99		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: TB-042017 | Lab Sample ID: 240-78454-1

Matrix: Water | Lab File ID: UXM2013.D

Analysis Method: 8260C | Date Collected: 04/20/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 15:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	4.5	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	3.4		1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	8.7		1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.78	J	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: TB-042017 | Lab Sample ID: 240-78454-1

Matrix: Water | Lab File ID: UXM2013.D

Analysis Method: 8260C | Date Collected: 04/20/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 15:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	90		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW98A-042017 | Lab Sample ID: 240-78454-2

Matrix: Water | Lab File ID: UXM2014.D

Analysis Method: 8260C | Date Collected: 04/20/2017 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 15:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.82	J	1.0	0.25
75-35-4	1,1-Dichloroethene	1.0		1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW98A-042017 | Lab Sample ID: 240-78454-2

Matrix: Water | Lab File ID: UXM2014.D

Analysis Method: 8260C | Date Collected: 04/20/2017 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 15:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	1.2		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	89		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW98B-042017 | Lab Sample ID: 240-78454-3

Matrix: Water | Lab File ID: UXM2015.D

Analysis Method: 8260C | Date Collected: 04/20/2017 10:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 16:15

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	14		13	2.9
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	13	4.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.1	U	13	5.1
79-00-5	1,1,2-Trichloroethane	4.3	U	13	4.3
75-34-3	1,1-Dichloroethane	74		13	3.1
75-35-4	1,1-Dichloroethene	170		13	3.4
120-82-1	1,2,4-Trichlorobenzene	3.4	U	13	3.4
96-12-8	1,2-Dibromo-3-Chloropropane	5.9	U	25	5.9
106-93-4	Ethylene Dibromide	2.9	U	13	2.9
95-50-1	1,2-Dichlorobenzene	3.3	U	13	3.3
107-06-2	1,2-Dichloroethane	3.8	U	13	3.8
78-87-5	1,2-Dichloropropane	3.8	U	13	3.8
541-73-1	1,3-Dichlorobenzene	4.0	U	13	4.0
106-46-7	1,4-Dichlorobenzene	2.9	U	13	2.9
78-93-3	2-Butanone (MEK)	13	U	130	13
591-78-6	2-Hexanone	15	U	130	15
108-10-1	4-Methyl-2-pentanone (MIBK)	8.9	U	130	8.9
67-64-1	Acetone	22	U	130	22
71-43-2	Benzene	3.5	U	13	3.5
75-27-4	Dichlorobromomethane	3.8	U	13	3.8
75-25-2	Bromoform	5.4	U	13	5.4
74-83-9	Bromomethane	5.3	U	13	5.3
75-15-0	Carbon disulfide	4.3	U	13	4.3
56-23-5	Carbon tetrachloride	4.4	U	13	4.4
108-90-7	Chlorobenzene	4.0	U	13	4.0
75-00-3	Chloroethane	19		13	5.1
67-66-3	Chloroform	3.9	U	13	3.9
74-87-3	Chloromethane	5.4	U	13	5.4
156-59-2	cis-1,2-Dichloroethene	17		13	3.8
10061-01-5	cis-1,3-Dichloropropene	3.3	U	13	3.3
110-82-7	Cyclohexane	5.5	U	13	5.5
124-48-1	Chlorodibromomethane	3.1	U	13	3.1
75-71-8	Dichlorodifluoromethane	6.3	U	13	6.3
100-41-4	Ethylbenzene	3.3	U	13	3.3
98-82-8	Isopropylbenzene	2.6	U	13	2.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW98B-042017 | Lab Sample ID: 240-78454-3

Matrix: Water | Lab File ID: UXM2015.D

Analysis Method: 8260C | Date Collected: 04/20/2017 10:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 16:15

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	18	U	130	18
1634-04-4	Methyl tert-butyl ether	3.4	U	13	3.4
108-87-2	Methylcyclohexane	5.6	U	13	5.6
75-09-2	Methylene Chloride	6.6	U	13	6.6
100-42-5	Styrene	2.9	U	13	2.9
127-18-4	Tetrachloroethene	4.0	J	13	3.8
108-88-3	Toluene	2.9	U	13	2.9
156-60-5	trans-1,2-Dichloroethene	3.6	U	13	3.6
10061-02-6	trans-1,3-Dichloropropene	3.9	U	13	3.9
79-01-6	Trichloroethene	350		13	4.1
75-69-4	Trichlorofluoromethane	6.3	U	13	6.3
75-01-4	Vinyl chloride	5.6	U	13	5.6
1330-20-7	Xylenes, Total	3.0	U	25	3.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	88		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW111A-042017 | Lab Sample ID: 240-78454-4

Matrix: Water | Lab File ID: UXM2016.D

Analysis Method: 8260C | Date Collected: 04/20/2017 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 16:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW111A-042017 | Lab Sample ID: 240-78454-4

Matrix: Water | Lab File ID: UXM2016.D

Analysis Method: 8260C | Date Collected: 04/20/2017 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 16:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	88		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW111B-042017 | Lab Sample ID: 240-78454-5

Matrix: Water | Lab File ID: UXM2017.D

Analysis Method: 8260C | Date Collected: 04/20/2017 13:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 17:01

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.9	U	13	2.9
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	13	4.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.1	U	13	5.1
79-00-5	1,1,2-Trichloroethane	4.3	U	13	4.3
75-34-3	1,1-Dichloroethane	43		13	3.1
75-35-4	1,1-Dichloroethene	170		13	3.4
120-82-1	1,2,4-Trichlorobenzene	3.4	U	13	3.4
96-12-8	1,2-Dibromo-3-Chloropropane	5.9	U	25	5.9
106-93-4	Ethylene Dibromide	2.9	U	13	2.9
95-50-1	1,2-Dichlorobenzene	3.3	U	13	3.3
107-06-2	1,2-Dichloroethane	3.8	U	13	3.8
78-87-5	1,2-Dichloropropane	3.8	U	13	3.8
541-73-1	1,3-Dichlorobenzene	4.0	U	13	4.0
106-46-7	1,4-Dichlorobenzene	2.9	U	13	2.9
78-93-3	2-Butanone (MEK)	13	U	130	13
591-78-6	2-Hexanone	15	U	130	15
108-10-1	4-Methyl-2-pentanone (MIBK)	8.9	U	130	8.9
67-64-1	Acetone	22	U	130	22
71-43-2	Benzene	3.5	U	13	3.5
75-27-4	Dichlorobromomethane	3.8	U	13	3.8
75-25-2	Bromoform	5.4	U	13	5.4
74-83-9	Bromomethane	5.3	U	13	5.3
75-15-0	Carbon disulfide	4.3	U	13	4.3
56-23-5	Carbon tetrachloride	4.4	U	13	4.4
108-90-7	Chlorobenzene	4.0	U	13	4.0
75-00-3	Chloroethane	5.1	U	13	5.1
67-66-3	Chloroform	3.9	U	13	3.9
74-87-3	Chloromethane	5.4	U	13	5.4
156-59-2	cis-1,2-Dichloroethene	41		13	3.8
10061-01-5	cis-1,3-Dichloropropene	3.3	U	13	3.3
110-82-7	Cyclohexane	5.5	U	13	5.5
124-48-1	Chlorodibromomethane	3.1	U	13	3.1
75-71-8	Dichlorodifluoromethane	6.3	U	13	6.3
100-41-4	Ethylbenzene	3.3	U	13	3.3
98-82-8	Isopropylbenzene	2.6	U	13	2.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW111B-042017 | Lab Sample ID: 240-78454-5

Matrix: Water | Lab File ID: UXM2017.D

Analysis Method: 8260C | Date Collected: 04/20/2017 13:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 17:01

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	18	U	130	18
1634-04-4	Methyl tert-butyl ether	3.4	U	13	3.4
108-87-2	Methylcyclohexane	5.6	U	13	5.6
75-09-2	Methylene Chloride	6.6	U	13	6.6
100-42-5	Styrene	2.9	U	13	2.9
127-18-4	Tetrachloroethene	3.8	U	13	3.8
108-88-3	Toluene	2.9	U	13	2.9
156-60-5	trans-1,2-Dichloroethene	3.6	U	13	3.6
10061-02-6	trans-1,3-Dichloropropene	3.9	U	13	3.9
79-01-6	Trichloroethene	410		13	4.1
75-69-4	Trichlorofluoromethane	6.3	U	13	6.3
75-01-4	Vinyl chloride	5.6	U	13	5.6
1330-20-7	Xylenes, Total	3.0	U	25	3.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	89		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: TB-042117 | Lab Sample ID: 240-78519-1

Matrix: Water | Lab File ID: U1256807.D

Analysis Method: 8260C | Date Collected: 04/21/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/28/2017 02:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276598 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: TB-042117 | Lab Sample ID: 240-78519-1

Matrix: Water | Lab File ID: U1256807.D

Analysis Method: 8260C | Date Collected: 04/21/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/28/2017 02:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276598 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	92		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW25A-042117 | Lab Sample ID: 240-78519-2

Matrix: Water | Lab File ID: U1256808.D

Analysis Method: 8260C | Date Collected: 04/21/2017 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/28/2017 02:28

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276598 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1.2	U	5.0	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.6	U	5.0	1.6
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.1	U	5.0	2.1
79-00-5	1,1,2-Trichloroethane	1.7	U	5.0	1.7
75-34-3	1,1-Dichloroethane	1.3	U	5.0	1.3
75-35-4	1,1-Dichloroethene	1.4	U	5.0	1.4
120-82-1	1,2,4-Trichlorobenzene	1.4	U	5.0	1.4
96-12-8	1,2-Dibromo-3-Chloropropane	2.4	U	10	2.4
106-93-4	Ethylene Dibromide	1.2	U	5.0	1.2
95-50-1	1,2-Dichlorobenzene	1.3	U	5.0	1.3
107-06-2	1,2-Dichloroethane	1.5	U	5.0	1.5
78-87-5	1,2-Dichloropropane	1.5	U	5.0	1.5
541-73-1	1,3-Dichlorobenzene	1.6	U	5.0	1.6
106-46-7	1,4-Dichlorobenzene	1.2	U	5.0	1.2
78-93-3	2-Butanone (MEK)	5.1	U	50	5.1
591-78-6	2-Hexanone	6.2	U	50	6.2
108-10-1	4-Methyl-2-pentanone (MIBK)	3.6	U	50	3.6
67-64-1	Acetone	8.8	U	50	8.8
71-43-2	Benzene	1.4	U	5.0	1.4
75-27-4	Dichlorobromomethane	1.5	U	5.0	1.5
75-25-2	Bromoform	2.2	U	5.0	2.2
74-83-9	Bromomethane	2.1	U	5.0	2.1
75-15-0	Carbon disulfide	1.7	U	5.0	1.7
56-23-5	Carbon tetrachloride	1.8	U	5.0	1.8
108-90-7	Chlorobenzene	1.6	U	5.0	1.6
75-00-3	Chloroethane	2.1	U	5.0	2.1
67-66-3	Chloroform	1.6	U	5.0	1.6
74-87-3	Chloromethane	2.2	U	5.0	2.2
156-59-2	cis-1,2-Dichloroethene	7.2		5.0	1.5
10061-01-5	cis-1,3-Dichloropropene	1.3	U	5.0	1.3
110-82-7	Cyclohexane	2.2	U	5.0	2.2
124-48-1	Chlorodibromomethane	1.3	U	5.0	1.3
75-71-8	Dichlorodifluoromethane	2.5	U	5.0	2.5
100-41-4	Ethylbenzene	1.3	U	5.0	1.3
98-82-8	Isopropylbenzene	1.1	U	5.0	1.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW25A-042117 | Lab Sample ID: 240-78519-2

Matrix: Water | Lab File ID: U1256808.D

Analysis Method: 8260C | Date Collected: 04/21/2017 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/28/2017 02:28

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276598 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	7.2	U	50	7.2
1634-04-4	Methyl tert-butyl ether	1.4	U	5.0	1.4
108-87-2	Methylcyclohexane	2.3	U	5.0	2.3
75-09-2	Methylene Chloride	2.7	U F2	5.0	2.7
100-42-5	Styrene	1.2	U	5.0	1.2
127-18-4	Tetrachloroethene	1.5	U	5.0	1.5
108-88-3	Toluene	1.2	U	5.0	1.2
156-60-5	trans-1,2-Dichloroethene	1.5	U	5.0	1.5
10061-02-6	trans-1,3-Dichloropropene	1.6	U	5.0	1.6
79-01-6	Trichloroethene	170		5.0	1.7
75-69-4	Trichlorofluoromethane	2.5	U	5.0	2.5
75-01-4	Vinyl chloride	2.3	U	5.0	2.3
1330-20-7	Xylenes, Total	1.2	U	10	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-120
1868-53-7	Dibromofluoromethane (Surr)	90		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW08B-042117 | Lab Sample ID: 240-78519-3

Matrix: Water | Lab File ID: U1256809.D

Analysis Method: 8260C | Date Collected: 04/21/2017 13:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/28/2017 02:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276598 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW08B-042117 | Lab Sample ID: 240-78519-3

Matrix: Water | Lab File ID: U1256809.D

Analysis Method: 8260C | Date Collected: 04/21/2017 13:35

Sample wt/vol: 5(mL) | Date Analyzed: 04/28/2017 02:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276598 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.34	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	91		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW14B-041817 | Lab Sample ID: 240-78295-2

Matrix: Water | Lab File ID: Z24971_54.D

Analysis Method: 522 | Date Collected: 04/18/2017 08:45

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 08:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 20

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	180		4.0	1.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	70		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW100A-041817 | Lab Sample ID: 240-78295-3

Matrix: Water | Lab File ID: Z24971_42.D

Analysis Method: 522 | Date Collected: 04/18/2017 10:53

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 00:21

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.4		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	92		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW100B-041817 | Lab Sample ID: 240-78295-4

Matrix: Water | Lab File ID: Z24971_69.D

Analysis Method: 522 | Date Collected: 04/18/2017 12:43

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 12:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 6.667

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	89		1.3	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	89		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW72B-041817 | Lab Sample ID: 240-78295-5

Matrix: Water | Lab File ID: Z24971_44.D

Analysis Method: 522 | Date Collected: 04/18/2017 15:09

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 00:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.21		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	96		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-DUP11-041817 | Lab Sample ID: 240-78295-6

Matrix: Water | Lab File ID: Z24971_70.D

Analysis Method: 522 | Date Collected: 04/18/2017 00:00

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 12:48

Con. Extract Vol.: 2(mL) | Dilution Factor: 10

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	90		2.0	0.57

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	84		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW81B-041917 | Lab Sample ID: 240-78379-2

Matrix: Water | Lab File ID: Z24971_46.D

Analysis Method: 522 | Date Collected: 04/19/2017 10:04

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 01:25

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.9		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	90		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW92C-041917 | Lab Sample ID: 240-78379-3

Matrix: Water | Lab File ID: Z24971_47.D

Analysis Method: 522 | Date Collected: 04/19/2017 12:36

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 01:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.095	J	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	85		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW48A-041917 | Lab Sample ID: 240-78379-4

Matrix: Water | Lab File ID: Z24971_48.D

Analysis Method: 522 | Date Collected: 04/19/2017 13:53

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 01:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	6.0		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	92		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW98A-042017 | Lab Sample ID: 240-78454-2

Matrix: Water | Lab File ID: Z24971_49.D

Analysis Method: 522 | Date Collected: 04/20/2017 09:40

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 02:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.1		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	85		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW98B-042017 | Lab Sample ID: 240-78454-3

Matrix: Water | Lab File ID: Z24971_71.D

Analysis Method: 522 | Date Collected: 04/20/2017 10:40

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 13:04

Con. Extract Vol.: 2(mL) | Dilution Factor: 12.5

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	140		2.5	0.71

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	91		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW111A-042017 | Lab Sample ID: 240-78454-4

Matrix: Water | Lab File ID: Z24971_51.D

Analysis Method: 522 | Date Collected: 04/20/2017 11:45

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 02:44

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.64		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	92		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW111B-042017 | Lab Sample ID: 240-78454-5

Matrix: Water | Lab File ID: Z24985_77.D

Analysis Method: 522 | Date Collected: 04/20/2017 13:00

Extract. Method: 3535A | Date Extracted: 05/04/2017 11:00

Sample wt/vol: 100(mL) | Date Analyzed: 05/05/2017 09:41

Con. Extract Vol.: 2(mL) | Dilution Factor: 16.667

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116397 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	170		3.3	0.95

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	111		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW25A-042117 | Lab Sample ID: 240-78519-2

Matrix: Water | Lab File ID: Z24985_48.D

Analysis Method: 522 | Date Collected: 04/21/2017 11:20

Extract. Method: 3535A | Date Extracted: 05/04/2017 11:00

Sample wt/vol: 100(mL) | Date Analyzed: 05/05/2017 02:08

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116397 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	4.5		0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	114		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW08B-042117 | Lab Sample ID: 240-78519-3

Matrix: Water | Lab File ID: Z24985_49.D

Analysis Method: 522 | Date Collected: 04/21/2017 13:35

Extract. Method: 3535A | Date Extracted: 05/04/2017 11:00

Sample wt/vol: 100(mL) | Date Analyzed: 05/05/2017 02:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116397 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.17	J	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	107		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-DUP13-042117 | Lab Sample ID: 240-78519-4

Matrix: Water | Lab File ID: Z24985_50.D

Analysis Method: 522 | Date Collected: 04/21/2017 00:00

Extract. Method: 3535A | Date Extracted: 05/04/2017 11:00

Sample wt/vol: 100(mL) | Date Analyzed: 05/05/2017 02:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116397 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.13	J	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	103		46-130

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW14B-041817 Lab Sample ID: 240-78295-2

Matrix: Water Lab File ID: RSK0428016.D

Analysis Method: RSK-175 Date Collected: 04/18/2017 08:45

Sample wt/vol: 33(mL) Date Analyzed: 04/28/2017 16:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 276683 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	22		0.50	0.14
74-85-1	Ethylene	4.2		0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	76		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW14B-041817 Lab Sample ID: 240-78295-2

Matrix: Water Lab File ID: RSK0501006.D

Analysis Method: RSK-175 Date Collected: 04/18/2017 08:45

Sample wt/vol: 33(mL) Date Analyzed: 05/01/2017 15:44

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 276952 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	4000		5.0	0.80

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	87		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW72B-041817 Lab Sample ID: 240-78295-5

Matrix: Water Lab File ID: RSK0428017.D

Analysis Method: RSK-175 Date Collected: 04/18/2017 15:09

Sample wt/vol: 33(mL) Date Analyzed: 04/28/2017 16:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 276683 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	1.2		0.50	0.080
74-84-0	Ethane	0.14	U	0.50	0.14
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	82		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW81B-041917 | Lab Sample ID: 240-78379-2

Matrix: Water | Lab File ID: RSK0503020.D

Analysis Method: RSK-175 | Date Collected: 04/19/2017 10:04

Sample wt/vol: 33(mL) | Date Analyzed: 05/03/2017 16:21

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 277266 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	3600		2.5	0.40
74-84-0	Ethane	24		2.5	0.70
74-85-1	Ethylene	170		2.5	0.65

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	79		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW48A-041917 Lab Sample ID: 240-78379-4

Matrix: Water Lab File ID: RSK0502023.D

Analysis Method: RSK-175 Date Collected: 04/19/2017 13:53

Sample wt/vol: 33(mL) Date Analyzed: 05/02/2017 19:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 277132 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	7.5		0.50	0.14
74-85-1	Ethylene	48		0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	77		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW48A-041917 | Lab Sample ID: 240-78379-4

Matrix: Water | Lab File ID: RSK0503021.D

Analysis Method: RSK-175 | Date Collected: 04/19/2017 13:53

Sample wt/vol: 33(mL) | Date Analyzed: 05/03/2017 16:38

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 277266 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	4300		2.5	0.40

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	78		76-121

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Client Sample ID: MRC-MW25A-042117 Lab Sample ID: 240-78519-2

Matrix: Water Lab File ID: RSK0504007.D

Analysis Method: RSK-175 Date Collected: 04/21/2017 11:20

Sample wt/vol: 33(mL) Date Analyzed: 05/04/2017 14:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 277484 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-85-1	Ethene	0.13	U	0.50	0.13
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	12		0.50	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	86		76-121

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW14B-041817 Lab Sample ID: 240-78295-2

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2017 08:45

Reporting Basis: WET Date Received: 04/19/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW14B-041817 Lab Sample ID: 240-78295-2

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2017 08:45

Reporting Basis: WET Date Received: 04/19/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	12000	5000	710	ug/L			1	6010C
7439-89-6	Iron	64000	100	25	ug/L			1	6010C
7440-09-7	Potassium	2900	5000	70	ug/L	J		1	6010C
7439-95-4	Magnesium	12000	5000	230	ug/L			1	6010C
7439-96-5	Manganese	2000	15	5.1	ug/L			1	6010C
7440-23-5	Sodium	300000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	12000	1100	140	ug/L			1	6010C
7440-36-0	Antimony	0.46	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	4.4	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	150	5.0	0.52	ug/L			1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	26	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	1.2	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.94	2.0	0.36	ug/L	J		1	6020A
7439-98-7	Molybdenum	1.2	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	34	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.64	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.67	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	5.6	5.0	0.54	ug/L			1	6020A
7440-66-6	Zinc	6.5	20	6.2	ug/L	J		1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW72B-041817 Lab Sample ID: 240-78295-5

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2017 15:09

Reporting Basis: WET Date Received: 04/19/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW72B-041817 Lab Sample ID: 240-78295-5

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2017 15:09

Reporting Basis: WET Date Received: 04/19/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	2200	5000	710	ug/L	J		1	6010C
7439-89-6	Iron	250	100	25	ug/L			1	6010C
7440-09-7	Potassium	1500	5000	70	ug/L	J		1	6010C
7439-95-4	Magnesium	1000	5000	230	ug/L	J		1	6010C
7439-96-5	Manganese	43	15	5.1	ug/L			1	6010C
7440-23-5	Sodium	8300	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	8800	1100	140	ug/L			1	6010C
7440-36-0	Antimony	0.27	2.0	0.27	ug/L	U		1	6020A
7440-38-2	Arsenic	0.35	5.0	0.35	ug/L	U		1	6020A
7440-39-3	Barium	19	5.0	0.52	ug/L			1	6020A
7440-41-7	Beryllium	0.77	1.0	0.40	ug/L	J		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	7.0	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.55	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	1.3	2.0	0.36	ug/L	J		1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	12	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.59	1.0	0.16	ug/L	J		1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.80	5.0	0.54	ug/L	J		1	6020A
7440-66-6	Zinc	61	20	6.2	ug/L			1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW81B-041917 Lab Sample ID: 240-78379-2

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2017 10:04

Reporting Basis: WET Date Received: 04/20/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW81B-041917 Lab Sample ID: 240-78379-2

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2017 10:04

Reporting Basis: WET Date Received: 04/20/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	33000	5000	710	ug/L			1	6010C
7439-89-6	Iron	32000	100	25	ug/L			1	6010C
7440-09-7	Potassium	1500	5000	70	ug/L	J		1	6010C
7439-95-4	Magnesium	4600	5000	230	ug/L	J		1	6010C
7439-96-5	Manganese	1400	15	5.1	ug/L			1	6010C
7440-23-5	Sodium	76000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	14000	1100	140	ug/L			1	6010C
7440-36-0	Antimony	0.48	2.0	0.27	ug/L	J	B	1	6020A
7440-38-2	Arsenic	0.60	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	190	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.41	1.0	0.40	ug/L	J		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	13	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.49	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.36	2.0	0.36	ug/L	U		1	6020A
7439-98-7	Molybdenum	0.60	10	0.51	ug/L	J		1	6020A
7440-02-0	Nickel	24	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.53	1.0	0.16	ug/L	J	B	1	6020A
7782-49-2	Selenium	0.51	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	6.2	20	6.2	ug/L	U		1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW92C-041917 Lab Sample ID: 240-78379-3

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2017 12:36

Reporting Basis: WET Date Received: 04/20/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW92C-041917 Lab Sample ID: 240-78379-3

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2017 12:36

Reporting Basis: WET Date Received: 04/20/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.27	2.0	0.27	ug/L	U		1	6020A
7440-38-2	Arsenic	0.35	5.0	0.35	ug/L	U		1	6020A
7440-39-3	Barium	97	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	0.40	1.0	0.40	ug/L	U		1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	2.3	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	1.2	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.36	2.0	0.36	ug/L	U		1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	12	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.41	1.0	0.16	ug/L	J	B	1	6020A
7782-49-2	Selenium	0.48	5.0	0.48	ug/L	U		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	6.8	20	6.2	ug/L	J	B	1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW48A-041917 Lab Sample ID: 240-78379-4

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2017 13:53

Reporting Basis: WET Date Received: 04/20/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U	F1	1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW48A-041917 Lab Sample ID: 240-78379-4

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2017 13:53

Reporting Basis: WET Date Received: 04/20/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	1800	5000	710	ug/L	J		1	6010C
7439-89-6	Iron	84000	100	25	ug/L			1	6010C
7440-09-7	Potassium	330	5000	70	ug/L	J		1	6010C
7439-95-4	Magnesium	14000	5000	230	ug/L			1	6010C
7439-96-5	Manganese	11000	15	5.1	ug/L			1	6010C
7440-23-5	Sodium	51000	5000	330	ug/L			1	6010C
14808-60-7	SiO2, Silica	15000	1100	140	ug/L			1	6010C
7440-36-0	Antimony	0.43	2.0	0.27	ug/L	J		1	6020A
7440-38-2	Arsenic	2.9	5.0	0.35	ug/L	J		1	6020A
7440-39-3	Barium	150	5.0	0.52	ug/L		B	1	6020A
7440-41-7	Beryllium	2.3	1.0	0.40	ug/L			1	6020A
7440-43-9	Cadmium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-48-4	Cobalt	130	1.0	0.13	ug/L			1	6020A
7440-47-3	Chromium	0.38	2.0	0.26	ug/L	J		1	6020A
7440-50-8	Copper	0.43	2.0	0.36	ug/L	J	B	1	6020A
7439-98-7	Molybdenum	0.51	10	0.51	ug/L	U		1	6020A
7440-02-0	Nickel	34	2.0	0.28	ug/L			1	6020A
7439-92-1	Lead	0.41	1.0	0.16	ug/L	J	B	1	6020A
7782-49-2	Selenium	1.3	5.0	0.48	ug/L	J		1	6020A
7440-28-0	Thallium	0.28	1.0	0.28	ug/L	U		1	6020A
7440-62-2	Vanadium	0.54	5.0	0.54	ug/L	U		1	6020A
7440-66-6	Zinc	6.2	20	6.2	ug/L	U		1	6020A
7440-22-4	Silver	0.030	1.0	0.030	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW25A-042117 Lab Sample ID: 240-78519-2

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2017 11:20

Reporting Basis: WET Date Received: 04/22/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	15000	5000	710	ug/L			1	6010C
7439-89-6	Iron	25000	100	25	ug/L		B	1	6010C
7440-09-7	Potassium	2400	5000	70	ug/L	J		1	6010C
7439-95-4	Magnesium	7400	5000	230	ug/L			1	6010C
7439-96-5	Manganese	3900	15	5.1	ug/L			1	6010C
7440-23-5	Sodium	83000	5000	330	ug/L		B	1	6010C
14808-60-7	SiO2, Silica	11000	1100	140	ug/L			1	6010C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW14B-041817 Lab Sample ID: 240-78295-2

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2017 08:45

Reporting Basis: WET Date Received: 04/19/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	600	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	82	1.0	0.41	mg/L			1	300.0
14797-65-0	Nitrite as N	0.038	0.10	0.038	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.035	0.10	0.035	mg/L	U		1	300.0
14808-79-8	Sulfate	0.13	1.0	0.13	mg/L	U		1	300.0
	Orthophosphate as P	0.26	1.0	0.050	mg/L	J	B	10	4500 P E-1999
	Total Dissolved Solids	850	10	7.4	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW14B-041817 Lab Sample ID: 240-78295-2

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2017 08:45

Reporting Basis: WET Date Received: 04/19/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	15	1.0	0.080	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW72B-041817 Lab Sample ID: 240-78295-5

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2017 15:09

Reporting Basis: WET Date Received: 04/19/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	5.3	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	14	1.0	0.41	mg/L			1	300.0
14797-65-0	Nitrite as N	0.11	0.10	0.038	mg/L			1	300.0
14797-55-8	Nitrate as N	0.44	0.10	0.035	mg/L			1	300.0
14808-79-8	Sulfate	1.3	1.0	0.13	mg/L			1	300.0
	Orthophosphate as P	0.056	0.10	0.0050	mg/L	J	B	1	4500 P E-1999
	Total Dissolved Solids	22	10	7.4	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW72B-041817 Lab Sample ID: 240-78295-5

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2017 15:09

Reporting Basis: WET Date Received: 04/19/2017 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	0.27	1.0	0.080	mg/L	J		1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW81B-041917 Lab Sample ID: 240-78379-2

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2017 10:04

Reporting Basis: WET Date Received: 04/20/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	150	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	77	1.0	0.41	mg/L			1	300.0
14797-65-0	Nitrite as N	0.038	0.10	0.038	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.046	0.10	0.035	mg/L	J		1	300.0
14808-79-8	Sulfate	2.7	1.0	0.13	mg/L			1	300.0
	Orthophosphate as P	0.097	0.10	0.0050	mg/L	J		1	4500 P E-1999
	Total Dissolved Solids	290	10	7.4	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW81B-041917 Lab Sample ID: 240-78379-2

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2017 10:04

Reporting Basis: WET Date Received: 04/20/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	1.2	1.0	0.080	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW48A-041917 Lab Sample ID: 240-78379-4

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2017 13:53

Reporting Basis: WET Date Received: 04/20/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	79	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	120	1.0	0.41	mg/L			1	300.0
14797-65-0	Nitrite as N	0.038	0.10	0.038	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.31	0.10	0.035	mg/L			1	300.0
14808-79-8	Sulfate	6.6	1.0	0.13	mg/L			1	300.0
	Orthophosphate as P	0.035	0.10	0.0050	mg/L	J		1	4500 P E-1999
	Total Dissolved Solids	340	10	7.4	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW48A-041917 Lab Sample ID: 240-78379-4

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2017 13:53

Reporting Basis: WET Date Received: 04/20/2017 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	7.5	1.0	0.080	mg/L			1	9060

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MRC-MW25A-042117 Lab Sample ID: 240-78519-2

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2017 11:20

Reporting Basis: WET Date Received: 04/22/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.87	2.0	0.87	mg/L	U		1	4500 NH3 C-1997
	Alkalinity	26	5.0	1.9	mg/L			1	2320B-1997
16887-00-6	Chloride	170	1.0	0.41	mg/L			1	300.0
14797-65-0	Nitrite as N	0.038	0.10	0.038	mg/L	U		1	300.0
14797-55-8	Nitrate as N	0.035	0.10	0.035	mg/L	U		1	300.0
14808-79-8	Sulfate	3.9	1.0	0.13	mg/L			1	300.0
	Total Dissolved Solids	370	10	7.4	mg/L			1	SM 2540C
	Orthophosphate as P	0.050	1.0	0.050	mg/L	U		10	SM 4500 P E

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MRC-MW25A-042117 Lab Sample ID: 240-78519-2

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG ID.:

Matrix: Water Date Sampled: 04/21/2017 11:20

Reporting Basis: WET Date Received: 04/22/2017 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	1.0	1.0	0.080	mg/L			1	9060

Appendix C

Support Documentation

ANALYTE	ORIGINAL MW-93A-041417 (SDG 78035-1)	DUPLICATE DUP12-041917	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2XRL
Carbon disulfide	0.42	0.34	1	21.053	FALSE	FALSE	FALSE	FALSE
cis-1,2-Dichloroethene	1.4	5.9	1	123.288	TRUE	FALSE	TRUE	TRUE
Trichloroethene	2.4	5.7	1	81.481	TRUE	TRUE	TRUE	TRUE

ANALYTE	ORIGINAL MW100B-041817	DUPLICATE DUP11-041817	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2XRL
1,4-Dioxane	89	90	1.3	1.117	FALSE	TRUE	TRUE	FALSE

ANALYTE	ORIGINAL MW08B-042117	DUPLICATE DUP13-042117	RL	RPD	RPD > 50%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2XRL
1,4-Dioxane	0.17	0.13	0.2	26.667	FALSE	FALSE	FALSE	FALSE

TestAmerica Canton
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Phone (330) 497-9396 Fax (330) 497-0772

4.6/C4.3

Chain of Custody Record

180325

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Payne	Lab PM: McFadden, John	Carrier Tracking No(s): BALTIMORE	COC No: 240-41091-17888.2
Client Contact: Mr. Stuart Cameron	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528 3022	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Middle River Center	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefol, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (5222)	Total metals (6020A)	MEE (RSK-175)	DOC Diss (9060)	Total Select metals (6010C)	Ammonia (SM4500NH3)	Alkalinity (2320B)	Anions - NO2,NO3 (300.0)	Anions - Cl, SO4 (300.0)	Calcd. TDS (2540C)	PE Ortho (4500)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A													
TB-041817	4/18/17	—	G	Water			2	-	-	-	-	-	-	-	-	-	-	-		
MRC-MW14B-041817		0845		Water			3	2	1	3	3	1		1	1					
MRC-MW100A-041817		1053					3	2	-	-	-	-	-	-	-	-	-	-		
MRC-MW100B-041817		1243					3	2	-	-	-	-	-	-	-	-	-	-		
MRC-MW72B-041817		1509					3	2	1	3	3	1		1	1					
MRC-DUP11-041817		0000					-	2	-	-	-	-	-	-	-	-	-	-		

240-78295 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Walt Payne	4/18/17 / 1550	D-INC		4-18-2017/1550	TestAmerica
Relinquished by	4-18-2017 / 1630	Company	Received by	4/19/17 930	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks

TestAmerica Canton Sample Receipt Form/Narrative Login # : 78795
Canton Facility

Client Tetra Tech Site Name MRC Cooler unpacked by: Heather Mygon

Cooler Received on 4/19/17 Opened on 4/19/17

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: ~~Bubble Wrap~~ Foam ~~Plastic Bag~~ None Other

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 4.6 °C Corrected Cooler Temp. 4.3 °C
   IR GUN #36 (CF **+0.8**°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? (Yes) No
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Are these work share samples? Yes (No)
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC? (Yes) No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes (No) NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Covered (Yes) No
15. Was a LL Hg or Me Hg trip blank present? ____ Yes (No)

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW14B-041817	240-78295-J-2	Amber Glass 250mL - hydrochloric			
MRC-MW14B-041817	240-78295-K-2	Amber Glass 250mL - hydrochloric			
MRC-MW14B-041817	240-78295-M-2	Plastic 250ml - with Sulfuric Acid	<2		
MRC-MW14B-041817	240-78295-O-2	Plastic 500ml - with Nitric Acid	<2		
MRC-MW14B-041817	240-78295-P-2	Plastic 500ml - with Nitric Acid	<2		
MRC-MW100A-041817	240-78295-D-3	Amber Glass 250mL - hydrochloric			
MRC-MW100A-041817	240-78295-E-3	Amber Glass 250mL - hydrochloric			
MRC-MW100B-041817	240-78295-D-4	Amber Glass 250mL - hydrochloric			
MRC-MW100B-041817	240-78295-E-4	Amber Glass 250mL - hydrochloric			
MRC-MW72B-041817	240-78295-J-5	Amber Glass 250mL - hydrochloric			
MRC-MW72B-041817	240-78295-K-5	Amber Glass 250mL - hydrochloric			
MRC-MW72B-041817	240-78295-M-5	Plastic 250ml - with Sulfuric Acid	<2		
MRC-MW72B-041817	240-78295-O-5	Plastic 500ml - with Nitric Acid	<2		
MRC-MW72B-041817	240-78295-P-5	Plastic 500ml - with Nitric Acid	<2		
MRC-DUP11-041817	240-78295-A-6	Amber Glass 250mL - hydrochloric			
MRC-DUP11-041817	240-78295-B-6	Amber Glass 250mL - hydrochloric			

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

1.2/C0.9

Chain of Custody Record

180325

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Walt Payor	Lab PM: McFadden, John	Carrier Tracking No(s): BALTIMORE	COC No: 240-41091-17888.1
Client Contact: Mr. Stuart Cameron	Phone: 301 528-3075	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3022	PO #: 1093454			
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: Middle River Center	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (522)	Total Metals (6020A)	MEE (RSK-175)	DOC (9060)	Total Select Metals (6010C)	Ammonia (SM4500NH3)	Alkalinity (2320B)	Anions - NO2, NO3 (300)	Anions - Cl, SO4 (300.0A)	Calcd TDS (2540C)	PE ONLY (4500)	Total Number of containers
				Preservation Code:															
TB-041917	4/19/17	—	G	Water			2	-	-	-	-	-	-	-	-	-	-	-	
MRC-MW61B-041917		1004		Water			3	4	1	3	3	1	1	1	1				
MRC MW 92C-041917		1236		Water			3	2	1	-	-	-	-	-	-	-	-	-	
MRC-MW48A-041917		1353		Water			3	2	1	3	3	1	1	1	1				
MRC Dup12-041917		0000		Water			3	-	-	-	-	-	-	-	-	-	-	-	
				~~Water~~															
				~~Water~~															
				~~Water~~															
				~~Water~~															
				~~Water~~															
				~~Water~~															

240-78379 Chain of Custody

Note:

Page 3449 of 3458

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Payor	4/19/17 1525	TT TMC		4-19-2017 1525	TestAmerica
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	4-19-2017 1605	TestAmerica		4/20/17 9:20	DANC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 78379**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by:

Cooler Received on 4/20/17 Opened on 4/20/17

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 1.2 °C Corrected Cooler Temp. 0.9 °C
   IR GUN #36 (CF **+0.8**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 11-15 have been checked at the originating laboratory.		
11. Were sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC682547**
12. Were VOAs on the COC?	Yes	No
13. Were air bubbles >6 mm in any VOA vials? ● ⇐ Larger than this.	Yes	No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # covered	Yes	No
15. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW81B-041917	240-78379-J-2	Amber Glass 250mL - hydrochloric	<2		
MRC-MW81B-041917	240-78379-K-2	Amber Glass 250mL - hydrochloric	<2		
MRC-MW81B-041917	240-78379-M-2	Plastic 250ml - with Sulfuric Acid	<2		
MRC-MW81B-041917	240-78379-O-2	Plastic 500ml - with Nitric Acid	<2		
MRC-MW81B-041917	240-78379-P-2	Plastic 500ml - with Nitric Acid	<2		
MRC-MW92C-041917	240-78379-D-3	Amber Glass 250mL - hydrochloric	<2		
MRC-MW92C-041917	240-78379-E-3	Amber Glass 250mL - hydrochloric	<2		
MRC-MW92C-041917	240-78379-F-3	Plastic 500ml - with Nitric Acid	<2		
MRC-MW48A-041917	240-78379-J-4	Amber Glass 250mL - hydrochloric			
MRC-MW48A-041917	240-78379-K-4	Amber Glass 250mL - hydrochloric			
MRC-MW48A-041917	240-78379-M-4	Plastic 250ml - with Sulfuric Acid	<2		
MRC-MW48A-041917	240-78379-O-4	Plastic 500ml - with Nitric Acid	<2		
MRC-MW48A-041917	240-78379-P-4	Plastic 500ml - with Nitric Acid	<2		

TestAmerica Baltimore
7526 Connelley Drive
Suite F
Hanover, MD 21076
Phone: 410.766.2516 Fax:

180325

Chain of Custody Record

1.4/C1.1

000483

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

BALTIMORE
Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Stuart Cameron	Site Contact: W. Pryor	Date: 4/20/17	COC No:
Company Name: Tetra Tech Inc	Tel/Fax: 301-528-3022	Lab Contact: J. McFadden	Carrier: FedEx	1 of 1 COCs
Address: 20251 Century Blvd. Ste. 200	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD, 20874	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 301-528-3022	TAT if different from Below			Walk-in Client:
Fax: —	☐ 2 weeks STANDARD			Lab Sampling:
Project Name: MRC GW 2017	☐ 1 week			Job / SDG No.:
Site: MRC, Middle River, MD	☐ 2 days			
PO # 112IC07776	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs (8260C) 14-day (522)		Sample Specific Notes:
TB-042017	4/20/17	0000	G	AQ	2			X		
MRC-MW98A-042017		0940			5			X	X	
MRC-MW98B-042017		1040			5			X	X	
MRC-MW111A-042017		1145			5			X	X	
MRC-MW111B-042017		1300			5			X	X	
								2	2	

240-78454 Chain of Custody

4/20/17

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: MRC GW 2017 112IC07776.

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
	Tetra Tech Inc	4/20/17 1525		TestAmerica	4-20-2017 / 1525
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
	TestAmerica	4-20-2017/1620		TANC	4/21/17 9:30
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 78453**

Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: BM

Cooler Received on 4/21/17 Opened on 4/21/17

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 1.4 °C Corrected Cooler Temp. 1.1 °C

IR GUN #36 (CF **+0.8**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No

-Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA

-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No

3. Shippers' packing slip attached to the cooler(s)? Yes No

4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels be reconciled with the COC? Yes No

9. Were correct bottle(s) used for the test(s) indicated? Yes No

10. Sufficient quantity received to perform indicated analyses? Yes No

11. Are these work share samples? Yes No

If yes, Questions 11-15 have been checked at the originating laboratory.

11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC682547**

12. Were VOAs on the COC? Yes No

13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA

14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Covered Yes No

15. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW98A-42017	240-78454-D-2	Amber Glass 250mL - hydrochloric	<2	_____	_____
MRC-MW98A-42017	240-78454-E-2	Amber Glass 250mL - hydrochloric	<2	_____	_____

TestAmerica Canton
4101 Shuffel Street NW
North Canton OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

24/C2.1

Chain of Custody Record

180325

TestAmerica

BALTIMORE

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No.:
Client Contact: Mr. Stuart Cameron	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com	COC No: 240-41091-17888.2
Company: Tetra Tech, Inc.			Page: Page 2 of 2
Address: 20251 Century Blvd, Suite 200	Due Date Requested:		Job #:
City: Germantown	TAT Requested (days): Standard		
State, Zip: MD, 20874			
Phone: 301 528-3022	PO #: 1093454		
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776		
Project Name: MRC 2017 GW	Project #: 24015639		
Site: Middle River Center	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wastewater, Sediment, Dissolved, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	1,4 Dioxane (522)	MEE (RSK-175)	DOC Diss (9060)	Ammonia (SM4520NH3)	Alkalinity (2320B)	Total Select metals (6010C)	Anions - NO2, NO3 (300)	Anions - Cl, SO4 (300.28D)	Calcd TDS (2540C)	PE Ortho (4500)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	A											X	
TB - 042117	4/21/17	—	G	Water			2	-	-	-	-	-	-	-	-	-	-		
MRC-MW25A - 042117	↓	1120	↓	Water			3	2	3	3	1	1	1	1	→	→	→		
MRC-MW08B - 042117	↓	1335	↓	↓			3	2	-	-	-	-	-	-	-	-	-		
MRC-D-p13 - 042117	↓	0000	↓	↓			3	2	-	-	-	-	-	-	-	-	-		Corrected 4/24/17 by S. Cameron
							MRC 4/24/17												

240-78519 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Walt Pryor	4/21/17 / 1545	17 INC	[signature]	4-21-2017 / 1545	TestAmerica
[signature]	4-21-2017 / 1649		[signature]	4/22/17 / 0x	[signature]

Custody Seals Intact: \ Yes \ No
Custody Seal No.:
Cooler Temperature(s): °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 78519**
Canton Facility

Client Tetra Tech Site Name MRC Cooler unpacked by:

Cooler Received on 4/22/17 Opened on 4/22/17

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box (Client Cooler) Box Other

Packing material used: ~~Bubble Wrap~~ Foam ~~Plastic Bag~~ None Other

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF -0.3 °C) Observed Cooler Temp. 2.4 °C Corrected Cooler Temp. 2.1 °C
   IR GUN #36 (CF +0.8°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? (Yes) No
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Are these work share samples? Yes (No)
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? (Yes) No NA pH Strip Lot# HC682547
12. Were VOAs on the COC? (Yes) No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes (No) NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 55320 (Yes) No
15. Was a LL Hg or Me Hg trip blank present? Yes ~~No~~

Contacted PM JWM Date 4/22/17 by JM via Verbal (Voice Mail) Other

Concerning #14

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

Missing VOC volume for MRC-Dup13-042217.

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW25A-042117	240-78519-I-2	Amber Glass 250mL - hydrochloric			
MRC-MW25A-042117	240-78519-J-2	Amber Glass 250mL - hydrochloric			
MRC-MW25A-042117	240-78519-L-2	Plastic 250ml - with Sulfuric Acid	<2		
MRC-MW25A-042117	240-78519-N-2	Plastic 500ml - with Nitric Acid	<2		
MRC-MW08B-042117	240-78519-D-3	Amber Glass 250mL - hydrochloric			
MRC-MW08B-042117	240-78519-E-3	Amber Glass 250mL - hydrochloric			
MRC-DUP13-042117	240-78519-A-4	Amber Glass 250mL - hydrochloric			
MRC-DUP13-042117	240-78519-B-4	Amber Glass 250mL - hydrochloric			

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-78295-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 1.4 Dioxane analysis was performed at TestAmerica Burlington Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 4/19/2017 9:30 AM, 4/20/2017 9:20 AM, 4/21/2017 9:30 AM and 4/22/2017 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.8º C, 1.1º C, 2.1º C and 4.3º C.

The following sample was listed on the Chain of Custody (COC) for VOCs; however, no VOC volume was received: MRC-DUP13-042117 (240-78519-4). The client was contacted and the client notified the laboratory that the COC was inadvertently marked wrong and there was no VOC volume collected for sample MRC-DUP13-042117 (240-78519-4). The client forwarded the laboratory a revised COC.

1,4-DIOXANE

Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW98A-042017 (240-78454-2), MRC-MW25A-042117 (240-78519-2), MRC-MW100A-041817 (240-78295-3), MRC-MW92C-041917 (240-78379-3), MRC-MW98B-042017 (240-78454-3), MRC-MW08B-042117 (240-78519-3), MRC-MW100B-041817 (240-78295-4), MRC-MW48A-041917 (240-78379-4), MRC-MW111A-042017 (240-78454-4), MRC-DUP13-042117 (240-78519-4), MRC-MW72B-041817 (240-78295-5), MRC-MW111B-042017 (240-78454-5) and MRC-DUP11-041817 (240-78295-6) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 05/02/2017 and 05/04/2017 and analyzed on 05/04/2017 and 05/05/2017.

Samples MRC-MW14B-041817 (240-78295-2)[20X], MRC-MW98B-042017 (240-78295-3)[12.5X], MRC-MW100B-041817 (240-78295-4)[6.67X], MRC-MW111B-042017 (240-78295-5)[16.67X] and MRC-DUP11-041817 (240-78295-6)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-041817 (240-78295-1), TB-041917 (240-78379-1), TB-042017 (240-78454-1), TB-042117 (240-78519-1), MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW98A-042017 (240-78454-2), MRC-MW25A-042117 (240-78519-2), MRC-MW100A-041817 (240-78295-3), MRC-MW92C-041917 (240-78379-3), MRC-MW98B-042017 (240-78454-3), MRC-MW08B-042117 (240-78519-3), MRC-MW100B-041817 (240-78295-4), MRC-MW48A-041917 (240-78379-4), MRC-MW111A-042017 (240-78454-4), MRC-MW72B-041817 (240-78295-5), MRC-DUP12-041917 (240-78379-5) and MRC-MW111B-042017 (240-78454-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/24/2017, 04/25/2017, 04/27/2017 and 04/28/2017.

Samples MRC-MW81B-041917 (240-78295-2)[10X], MRC-MW25A-042117 (240-78295-2)[5X], MRC-MW98B-042017 (240-78295-3) [12.5X], MRC-MW100B-041817 (240-78295-4)[5X], MRC-MW48A-041917 (240-78295-4)[50X], MRC-MW72B-041817 (240-78295-5) [100X] and MRC-MW111B-042017 (240-78295-5)[12.5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 240-275993 was outside the method criteria for multiple analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

The continuing calibration verification (CCV) associated with batch 240-276598 recovered above the upper control limit for difluorodichloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: TB-042117 (240-78519-1), MRC-MW25A-042117 (240-78519-2), MRC-MW08B-042117 (240-78519-3) and (CCVIS 240-276598/3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED GASES

Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW25A-042117 (240-78519-2), MRC-MW48A-041917 (240-78379-4) and MRC-MW72B-041817 (240-78295-5) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 04/28/2017, 05/01/2017, 05/02/2017, 05/03/2017 and 05/04/2017.

Samples MRC-MW14B-041817 (240-78295-2)[10X], MRC-MW81B-041917 (240-78295-2)[5X] and MRC-MW48A-041917 (240-78295-4) [5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

MS/MSD analyzed but not reported due to surrogate failure. The parent /MS/MSD will be re-analyzed. MRC-MW14B-041817 (240-78295-2)

The matrix spike duplicate (MSD) recoveries for analytical batch 240-277266 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICP)

Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW25A-042117 (240-78519-2), MRC-MW48A-041917 (240-78379-4) and MRC-MW72B-041817 (240-78295-5) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 04/20/2017, 04/21/2017 and 04/26/2017 and analyzed on 04/21/2017, 04/22/2017 and 04/27/2017.

Iron and Sodium were detected in method blank MB 240-276308/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)

Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW92C-041917 (240-78379-3), MRC-MW48A-041917 (240-78379-4) and MRC-MW72B-041817 (240-78295-5) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 04/20/2017 and 04/21/2017 and analyzed on 04/25/2017 and 04/27/2017.

Manganese was detected in method blank MB 240-275590/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Barium, Copper, Iron, Lead and Manganese were detected in method blank MB 240-275710/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY

Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW92C-041917 (240-78379-3), MRC-MW48A-041917 (240-78379-4) and MRC-MW72B-041817 (240-78295-5) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 04/20/2017 and 04/21/2017 and analyzed on 04/21/2017 and 04/24/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW25A-042117 (240-78519-2),

MRC-MW48A-041917 (240-78379-4) and MRC-MW72B-041817 (240-78295-5) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 04/29/2017, 05/03/2017 and 05/04/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL DISSOLVED SOLIDS
Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW25A-042117 (240-78519-2), MRC-MW48A-041917 (240-78379-4) and MRC-MW72B-041817 (240-78295-5) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 04/25/2017 and 04/28/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS
Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW25A-042117 (240-78519-2), MRC-MW48A-041917 (240-78379-4) and MRC-MW72B-041817 (240-78295-5) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/19/2017, 04/20/2017 and 04/22/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS
Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW25A-042117 (240-78519-2), MRC-MW48A-041917 (240-78379-4) and MRC-MW72B-041817 (240-78295-5) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 04/19/2017, 04/20/2017 and 04/22/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ORTHOPHOSPHATE AS P
Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW25A-042117 (240-78519-2), MRC-MW48A-041917 (240-78379-4) and MRC-MW72B-041817 (240-78295-5) were analyzed for orthophosphate as P in accordance with SM 4500 P E. The samples were analyzed on 04/19/2017, 04/20/2017 and 04/22/2017.

Orthophosphate as P was detected in method blank MB 240-275410/3 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Samples MRC-MW14B-041817 (240-78295-2)[10X] and MRC-MW25A-042117 (240-78295-2)[10X] required dilution prior to analysis due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED ORGANIC CARBON
Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW25A-042117 (240-78519-2), MRC-MW48A-041917 (240-78379-4) and MRC-MW72B-041817 (240-78295-5) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 04/26/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA TITRATION
Samples MRC-MW14B-041817 (240-78295-2), MRC-MW81B-041917 (240-78379-2), MRC-MW25A-042117 (240-78519-2), MRC-MW48A-041917 (240-78379-4) and MRC-MW72B-041817 (240-78295-5) were analyzed for Ammonia Titration in accordance with Standard Methods 4500 NH3-C. The samples were prepared and analyzed on 05/01/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-78295-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
6010C	Metals (ICP)	SW846	TAL CAN
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
4500 NH3 C-1997	Ammonia	SM	TAL CAN
4500 P E-1999	Orthophosphate	SM	TAL CAN
9060	Organic Carbon, Dissolved (DOC)	SW846	TAL CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN
SM 4500 P E	Orthophosphate	SM	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-78295-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-78295-1	TB-041817	Water	04/18/17 00:00	04/19/17 09:30
240-78295-2	MRC-MW14B-041817	Water	04/18/17 08:45	04/19/17 09:30
240-78295-3	MRC-MW100A-041817	Water	04/18/17 10:53	04/19/17 09:30
240-78295-4	MRC-MW100B-041817	Water	04/18/17 12:43	04/19/17 09:30
240-78295-5	MRC-MW72B-041817	Water	04/18/17 15:09	04/19/17 09:30
240-78295-6	MRC-DUP11-041817	Water	04/18/17 00:00	04/19/17 09:30
240-78379-1	TB-041917	Water	04/19/17 00:00	04/20/17 09:20
240-78379-2	MRC-MW81B-041917	Water	04/19/17 10:04	04/20/17 09:20
240-78379-3	MRC-MW92C-041917	Water	04/19/17 12:36	04/20/17 09:20
240-78379-4	MRC-MW48A-041917	Water	04/19/17 13:53	04/20/17 09:20
240-78379-5	MRC-DUP12-041917	Water	04/19/17 00:00	04/20/17 09:20
240-78454-1	TB-042017	Water	04/20/17 00:00	04/21/17 09:30
240-78454-2	MRC-MW98A-042017	Water	04/20/17 09:40	04/21/17 09:30
240-78454-3	MRC-MW98B-042017	Water	04/20/17 10:40	04/21/17 09:30
240-78454-4	MRC-MW111A-042017	Water	04/20/17 11:45	04/21/17 09:30
240-78454-5	MRC-MW111B-042017	Water	04/20/17 13:00	04/21/17 09:30
240-78519-1	TB-042117	Water	04/21/17 00:00	04/22/17 10:15
240-78519-2	MRC-MW25A-042117	Water	04/21/17 11:20	04/22/17 10:15
240-78519-3	MRC-MW08B-042117	Water	04/21/17 13:35	04/22/17 10:15
240-78519-4	MRC-DUP13-042117	Water	04/21/17 00:00	04/22/17 10:15

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-041817	240-78295-1	92	93	95	93
MRC-MW14B-041817	240-78295-2	97	96	98	97
MRC-MW100A-041817	240-78295-3	97	98	100	95
MRC-MW100B-041817	240-78295-4	95	98	98	96
MRC-MW72B-041817	240-78295-5	97	98	99	96
TB-041917	240-78379-1	88	86	101	100
MRC-MW81B-041917	240-78379-2	88	88	100	98
MRC-MW92C-041917	240-78379-3	86	86	101	99
MRC-MW48A-041917	240-78379-4	86	87	99	97
MRC-DUP12-041917	240-78379-5	86	87	100	99
TB-042017	240-78454-1	90	92	103	95
MRC-MW98A-042017	240-78454-2	89	89	99	92
MRC-MW98B-042017	240-78454-3	88	89	100	91
MRC-MW111A-042017	240-78454-4	88	90	99	91
MRC-MW111B-042017	240-78454-5	89	90	101	97
TB-042117	240-78519-1	92	96	96	96
MRC-MW25A-042117	240-78519-2	90	93	97	93
MRC-MW08B-042117	240-78519-3	91	98	96	97
	MB 240-275993/7	90	93	94	94
	MB 240-276055/7	83	87	100	98
	MB 240-276429/7	85	87	100	97
	MB 240-276598/7	95	95	96	95
	LCS 240-275993/4	95	95	101	97
	LCS 240-276055/4	86	85	104	101
	LCS 240-276429/4	86	87	102	103
	LCS 240-276598/4	95	99	99	100
MRC-MW25A-042117 MS	240-78519-2 MS	97	108	97	99
	240-78241-E-9 MS	96	95	100	96
	240-78330-B-5 MS	90	86	104	105
	240-78458-A-6 MS	87	88	101	97
MRC-MW25A-042117 MSD	240-78519-2 MSD	94	94	97	99
	240-78241-H-9 MSD	93	96	100	97
	240-78330-B-5 MSD	89	86	103	104

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
	240-78458-A-6 MSD	90	87	103	99

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1866.D

Lab ID: LCS 240-275993/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.9	104	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.2	101	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	26.5	132	65-144	
1,1,2-Trichloroethane	20.0	20.1	101	76-121	
1,1-Dichloroethane	20.0	20.8	104	74-120	
1,1-Dichloroethene	20.0	21.9	109	65-127	
1,2,4-Trichlorobenzene	20.0	19.5	97	34-141	
1,2-Dibromo-3-Chloropropane	20.0	19.0	95	50-130	
Ethylene Dibromide	20.0	19.5	97	80-120	
1,2-Dichlorobenzene	20.0	20.3	102	80-120	
1,2-Dichloroethane	20.0	19.0	95	68-133	
1,2-Dichloropropane	20.0	20.3	102	78-127	
1,3-Dichlorobenzene	20.0	19.5	97	80-120	
1,4-Dichlorobenzene	20.0	19.2	96	80-120	
2-Butanone (MEK)	40.0	34.3	86	43-149	
2-Hexanone	40.0	36.6	91	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	35.9	90	53-144	
Acetone	40.0	30.7	77	35-131	
Benzene	20.0	20.0	100	79-120	
Dichlorobromomethane	20.0	18.9	94	79-125	
Bromoform	20.0	18.3	92	55-145	
Bromomethane	20.0	21.4	107	17-158	
Carbon disulfide	20.0	22.4	112	49-141	
Carbon tetrachloride	20.0	20.7	104	55-171	
Chlorobenzene	20.0	19.7	99	80-120	
Chloroethane	20.0	24.5	123	10-149	
Chloroform	20.0	19.5	97	80-120	
Chloromethane	20.0	20.1	101	59-124	
cis-1,2-Dichloroethene	20.0	20.0	100	77-120	
cis-1,3-Dichloropropene	20.0	19.2	96	75-120	
Cyclohexane	20.0	25.1	126	66-135	
Chlorodibromomethane	20.0	19.0	95	64-129	
Dichlorodifluoromethane	20.0	25.8	129	42-141	
Ethylbenzene	20.0	20.8	104	80-120	
Isopropylbenzene	20.0	20.3	102	80-128	
Methyl acetate	40.0	40.0	100	63-137	
Methyl tert-butyl ether	20.0	19.4	97	73-120	
Methylcyclohexane	20.0	23.8	119	63-141	
Methylene Chloride	20.0	19.7	98	64-140	
Styrene	20.0	19.8	99	80-121	
Tetrachloroethene	20.0	20.3	101	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1866.D

Lab ID: LCS 240-275993/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.2	101	78-120	
trans-1,2-Dichloroethene	20.0	20.8	104	74-124	
trans-1,3-Dichloropropene	20.0	19.1	95	67-120	
Trichloroethene	20.0	18.9	94	76-124	
Trichlorofluoromethane	20.0	24.1	121	27-176	
Vinyl chloride	20.0	23.6	118	65-124	
Xylenes, Total	40.0	40.8	102	80-120	
m-Xylene & p-Xylene	20.0	20.1	100	80-120	
o-Xylene	20.0	20.7	103	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1896.D

Lab ID: LCS 240-276055/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.0	90	64-147	
1,1,2,2-Tetrachloroethane	20.0	21.9	109	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.5	93	65-144	
1,1,2-Trichloroethane	20.0	21.1	106	76-121	
1,1-Dichloroethane	20.0	18.6	93	74-120	
1,1-Dichloroethene	20.0	18.4	92	65-127	
1,2,4-Trichlorobenzene	20.0	21.3	106	34-141	
1,2-Dibromo-3-Chloropropane	20.0	19.4	97	50-130	
Ethylene Dibromide	20.0	20.8	104	80-120	
1,2-Dichlorobenzene	20.0	21.5	108	80-120	
1,2-Dichloroethane	20.0	17.6	88	68-133	
1,2-Dichloropropane	20.0	18.6	93	78-127	
1,3-Dichlorobenzene	20.0	21.3	106	80-120	
1,4-Dichlorobenzene	20.0	20.7	103	80-120	
2-Butanone (MEK)	40.0	31.9	80	43-149	
2-Hexanone	40.0	41.2	103	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	35.6	89	53-144	
Acetone	40.0	29.3	73	35-131	
Benzene	20.0	18.5	92	79-120	
Dichlorobromomethane	20.0	17.1	86	79-125	
Bromoform	20.0	16.9	85	55-145	
Bromomethane	20.0	18.6	93	17-158	
Carbon disulfide	20.0	19.0	95	49-141	
Carbon tetrachloride	20.0	16.8	84	55-171	
Chlorobenzene	20.0	20.3	102	80-120	
Chloroethane	20.0	21.0	105	10-149	
Chloroform	20.0	17.7	88	80-120	
Chloromethane	20.0	17.6	88	59-124	
cis-1,2-Dichloroethene	20.0	18.2	91	77-120	
cis-1,3-Dichloropropene	20.0	16.9	84	75-120	
Cyclohexane	20.0	18.0	90	66-135	
Chlorodibromomethane	20.0	18.8	94	64-129	
Dichlorodifluoromethane	20.0	16.6	83	42-141	
Ethylbenzene	20.0	21.1	106	80-120	
Isopropylbenzene	20.0	20.5	102	80-128	
Methyl acetate	40.0	37.2	93	63-137	
Methyl tert-butyl ether	20.0	18.0	90	73-120	
Methylcyclohexane	20.0	16.0	80	63-141	
Methylene Chloride	20.0	17.0	85	64-140	
Styrene	20.0	20.4	102	80-121	
Tetrachloroethene	20.0	20.5	102	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1896.D

Lab ID: LCS 240-276055/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	21.2	106	78-120	
trans-1,2-Dichloroethene	20.0	18.7	94	74-124	
trans-1,3-Dichloropropene	20.0	19.1	96	67-120	
Trichloroethene	20.0	17.3	87	76-124	
Trichlorofluoromethane	20.0	17.6	88	27-176	
Vinyl chloride	20.0	19.7	98	65-124	
Xylenes, Total	40.0	41.7	104	80-120	
m-Xylene & p-Xylene	20.0	20.6	103	80-120	
o-Xylene	20.0	21.1	106	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1998.D

Lab ID: LCS 240-276429/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	17.9	89	64-147	
1,1,2,2-Tetrachloroethane	20.0	22.7	113	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	15.5	78	65-144	
1,1,2-Trichloroethane	20.0	21.9	110	76-121	
1,1-Dichloroethane	20.0	19.0	95	74-120	
1,1-Dichloroethene	20.0	18.2	91	65-127	
1,2,4-Trichlorobenzene	20.0	20.8	104	34-141	
1,2-Dibromo-3-Chloropropane	20.0	19.4	97	50-130	
Ethylene Dibromide	20.0	20.8	104	80-120	
1,2-Dichlorobenzene	20.0	22.0	110	80-120	
1,2-Dichloroethane	20.0	18.3	92	68-133	
1,2-Dichloropropane	20.0	19.2	96	78-127	
1,3-Dichlorobenzene	20.0	21.2	106	80-120	
1,4-Dichlorobenzene	20.0	20.9	104	80-120	
2-Butanone (MEK)	40.0	34.4	86	43-149	
2-Hexanone	40.0	42.5	106	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	37.2	93	53-144	
Acetone	40.0	29.7	74	35-131	
Benzene	20.0	18.7	93	79-120	
Dichlorobromomethane	20.0	18.0	90	79-125	
Bromoform	20.0	17.8	89	55-145	
Bromomethane	20.0	17.9	90	17-158	
Carbon disulfide	20.0	18.8	94	49-141	
Carbon tetrachloride	20.0	16.0	80	55-171	
Chlorobenzene	20.0	20.4	102	80-120	
Chloroethane	20.0	21.6	108	10-149	
Chloroform	20.0	18.0	90	80-120	
Chloromethane	20.0	17.6	88	59-124	
cis-1,2-Dichloroethene	20.0	18.3	91	77-120	
cis-1,3-Dichloropropene	20.0	17.5	88	75-120	
Cyclohexane	20.0	15.6	78	66-135	
Chlorodibromomethane	20.0	19.4	97	64-129	
Dichlorodifluoromethane	20.0	16.3	81	42-141	
Ethylbenzene	20.0	21.3	107	80-120	
Isopropylbenzene	20.0	20.5	103	80-128	
Methyl acetate	40.0	38.4	96	63-137	
Methyl tert-butyl ether	20.0	18.5	93	73-120	
Methylcyclohexane	20.0	13.8	69	63-141	
Methylene Chloride	20.0	17.4	87	64-140	
Styrene	20.0	21.0	105	80-121	
Tetrachloroethene	20.0	19.9	99	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1998.D

Lab ID: LCS 240-276429/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	21.2	106	78-120	
trans-1,2-Dichloroethene	20.0	18.9	95	74-124	
trans-1,3-Dichloropropene	20.0	19.3	96	67-120	
Trichloroethene	20.0	17.4	87	76-124	
Trichlorofluoromethane	20.0	17.4	87	27-176	
Vinyl chloride	20.0	19.6	98	65-124	
Xylenes, Total	40.0	42.0	105	80-120	
m-Xylene & p-Xylene	20.0	20.8	104	80-120	
o-Xylene	20.0	21.2	106	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256786.D

Lab ID: LCS 240-276598/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	22.1	111	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.7	104	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.5	112	65-144	
1,1,2-Trichloroethane	20.0	20.4	102	76-121	
1,1-Dichloroethane	20.0	20.9	105	74-120	
1,1-Dichloroethene	20.0	21.4	107	65-127	
1,2,4-Trichlorobenzene	20.0	20.0	100	34-141	
1,2-Dibromo-3-Chloropropane	20.0	19.9	99	50-130	
Ethylene Dibromide	20.0	20.7	103	80-120	
1,2-Dichlorobenzene	20.0	21.1	106	80-120	
1,2-Dichloroethane	20.0	20.9	104	68-133	
1,2-Dichloropropane	20.0	21.0	105	78-127	
1,3-Dichlorobenzene	20.0	21.7	109	80-120	
1,4-Dichlorobenzene	20.0	21.2	106	80-120	
2-Butanone (MEK)	40.0	30.1	75	43-149	
2-Hexanone	40.0	35.4	88	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	35.8	89	53-144	
Acetone	40.0	22.6	57	35-131	
Benzene	20.0	20.9	104	79-120	
Dichlorobromomethane	20.0	23.0	115	79-125	
Bromoform	20.0	17.5	88	55-145	
Bromomethane	20.0	20.4	102	17-158	
Carbon disulfide	20.0	26.1	130	49-141	
Carbon tetrachloride	20.0	22.5	112	55-171	
Chlorobenzene	20.0	20.9	105	80-120	
Chloroethane	20.0	20.3	102	10-149	
Chloroform	20.0	21.1	105	80-120	
Chloromethane	20.0	21.3	107	59-124	
cis-1,2-Dichloroethene	20.0	20.5	103	77-120	
cis-1,3-Dichloropropene	20.0	22.1	111	75-120	
Cyclohexane	20.0	18.1	90	66-135	
Chlorodibromomethane	20.0	22.0	110	64-129	
Dichlorodifluoromethane	20.0	22.0	110	42-141	
Ethylbenzene	20.0	21.5	108	80-120	
Isopropylbenzene	20.0	22.7	113	80-128	
Methyl acetate	40.0	34.9	87	63-137	
Methyl tert-butyl ether	20.0	20.4	102	73-120	
Methylcyclohexane	20.0	21.4	107	63-141	
Methylene Chloride	20.0	18.4	92	64-140	
Styrene	20.0	21.8	109	80-121	
Tetrachloroethene	20.0	21.2	106	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256786.D

Lab ID: LCS 240-276598/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.6	103	78-120	
trans-1,2-Dichloroethene	20.0	21.7	109	74-124	
trans-1,3-Dichloropropene	20.0	19.4	97	67-120	
Trichloroethene	20.0	20.3	101	76-124	
Trichlorofluoromethane	20.0	25.0	125	27-176	
Vinyl chloride	20.0	20.9	104	65-124	
Xylenes, Total	40.0	43.2	108	80-120	
m-Xylene & p-Xylene	20.0	21.6	108	80-120	
o-Xylene	20.0	21.6	108	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256810.D

Lab ID: 240-78519-2 MS Client ID: MRC-MW25A-042117 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	100	1.2 U	102	102	57-156	
1,1,2,2-Tetrachloroethane	100	1.6 U	108	108	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	100	2.1 U	102	102	58-137	
1,1,2-Trichloroethane	100	1.7 U	103	103	68-127	
1,1-Dichloroethane	100	1.3 U	100	100	69-122	
1,1-Dichloroethene	100	1.4 U	105	105	62-127	
1,2,4-Trichlorobenzene	100	1.4 U	87.7	88	26-138	
1,2-Dibromo-3-Chloropropane	100	2.4 U	101	101	48-130	
Ethylene Dibromide	100	1.2 U	103	103	73-121	
1,2-Dichlorobenzene	100	1.3 U	96.1	96	70-120	
1,2-Dichloroethane	100	1.5 U	102	102	64-138	
1,2-Dichloropropane	100	1.5 U	97.9	98	72-131	
1,3-Dichlorobenzene	100	1.6 U	95.4	95	71-120	
1,4-Dichlorobenzene	100	1.2 U	93.6	94	72-120	
2-Butanone (MEK)	200	5.1 U	176	88	34-153	
2-Hexanone	200	6.2 U	212	106	21-184	
4-Methyl-2-pentanone (MIBK)	200	3.6 U	207	103	53-147	
Acetone	200	8.8 U	146	73	19-133	
Benzene	100	1.4 U	102	102	69-127	
Dichlorobromomethane	100	1.5 U	109	109	75-128	
Bromoform	100	2.2 U	71.2	71	61-135	
Bromomethane	100	2.1 U	95.8	96	10-148	
Carbon disulfide	100	1.7 U	120	120	46-143	
Carbon tetrachloride	100	1.8 U	101	101	53-175	
Chlorobenzene	100	1.6 U	95.6	96	76-120	
Chloroethane	100	2.1 U	101	101	10-141	
Chloroform	100	1.6 U	103	103	74-125	
Chloromethane	100	2.2 U	105	105	34-127	
cis-1,2-Dichloroethene	100	7.2	108	101	69-127	
cis-1,3-Dichloropropene	100	1.3 U	106	106	68-120	
Cyclohexane	100	2.2 U	75.7	76	56-135	
Chlorodibromomethane	100	1.3 U	97.6	98	62-131	
Dichlorodifluoromethane	100	2.5 U	96.7	97	45-130	
Ethylbenzene	100	1.3 U	98.9	99	72-121	
Isopropylbenzene	100	1.1 U	100	100	70-132	
Methyl acetate	200	7.2 U	211	106	52-139	
Methyl tert-butyl ether	100	1.4 U	110	110	67-125	
Methylcyclohexane	100	2.3 U	91.4	91	46-139	
Methylene Chloride	100	2.7 U	77.8	78	52-137	
Styrene	100	1.2 U	101	101	74-125	
Tetrachloroethene	100	1.5 U	93.8	94	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256810.D

Lab ID: 240-78519-2 MS Client ID: MRC-MW25A-042117 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	100	1.2 U	93.8	94	69-125	
trans-1,2-Dichloroethene	100	1.5 U	102	102	66-131	
trans-1,3-Dichloropropene	100	1.6 U	89.8	90	59-120	
Trichloroethene	100	170	280	111	68-129	
Trichlorofluoromethane	100	2.5 U	110	110	28-172	
Vinyl chloride	100	2.3 U	97.0	97	55-123	
Xylenes, Total	200	1.2 U	195	97	71-122	
m-Xylene & p-Xylene	100	1.2 U	98.0	98	70-121	
o-Xylene	100	1.4 U	96.6	97	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1889.D

Lab ID: 240-78241-E-9 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	5000	610	5330	94	57-156	
1,1-Dichloroethane	5000	990	5740	95	69-122	
1,1-Dichloroethene	5000	68 U	5170	103	62-127	
Benzene	5000	70 U	4810	96	69-127	
Chloroethane	5000	100 U	5470	109	10-141	
cis-1,2-Dichloroethene	5000	10000	12600	46	69-127	F1
Ethylbenzene	5000	65 U	4750	95	72-121	
Tetrachloroethene	5000	75 U	4810	96	69-126	
Toluene	5000	58 U	4850	97	69-125	
trans-1,2-Dichloroethene	5000	73 U	4910	98	66-131	
Trichloroethene	5000	83 U	4500	90	68-129	
Vinyl chloride	5000	2500	7350	96	55-123	
Xylenes, Total	10000	60 U	9480	95	71-122	
m-Xylene & p-Xylene	5000	60 U	4740	95	70-121	
o-Xylene	5000	70 U	4740	95	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1917.D

Lab ID: 240-78330-B-5 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	200	2.3 U	188	94	57-156	
1,1-Dichloroethane	200	2.5 U	193	96	69-122	
1,1-Dichloroethene	200	2.7 U	192	96	62-127	
Benzene	200	2.8 U	187	93	69-127	
Chloroethane	200	4.1 U	223	112	10-141	
cis-1,2-Dichloroethene	200	330	534	104	69-127	
Ethylbenzene	200	2.6 U	205	103	72-121	
Tetrachloroethene	200	3.0 U	192	96	69-126	
Toluene	200	2.3 U	207	103	69-125	
trans-1,2-Dichloroethene	200	10	207	98	66-131	
Trichloroethene	200	4.6 J	176	86	68-129	
Vinyl chloride	200	270	466	99	55-123	
Xylenes, Total	400	2.4 U	410	103	71-122	
m-Xylene & p-Xylene	200	2.4 U	204	102	70-121	
o-Xylene	200	2.8 U	206	103	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

Sample not included in SDG.

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM2019.D

Lab ID: 240-78458-A-6 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	200	2.3 U	185	93	57-156	
1,1-Dichloroethane	200	8.5 J	193	92	69-122	
1,1-Dichloroethene	200	7.7 J	198	95	62-127	
Benzene	200	2.8 U	183	91	69-127	
Chloroethane	200	4.1 U	223	112	10-141	
Ethylbenzene	200	2.6 U	207	104	72-121	
Tetrachloroethene	200	3.0 U	196	98	69-126	
Toluene	200	2.3 U	206	103	69-125	
trans-1,2-Dichloroethene	200	26	215	94	66-131	
Trichloroethene	200	23	195	86	68-129	
Xylenes, Total	400	2.4 U	410	103	71-122	
m-Xylene & p-Xylene	200	2.4 U	204	102	70-121	
o-Xylene	200	2.8 U	206	103	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256811.D

Lab ID: 240-78519-2 MSD Client ID: MRC-MW25A-042117 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	100	103	103	1	13	57-156	
1,1,2,2-Tetrachloroethane	100	103	103	5	17	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	100	97.5	97	4	35	58-137	
1,1,2-Trichloroethane	100	103	103	1	11	68-127	
1,1-Dichloroethane	100	99.1	99	1	11	69-122	
1,1-Dichloroethene	100	101	101	4	14	62-127	
1,2,4-Trichlorobenzene	100	92.1	92	5	35	26-138	
1,2-Dibromo-3-Chloropropane	100	96.6	97	4	31	48-130	
Ethylene Dibromide	100	100	100	3	12	73-121	
1,2-Dichlorobenzene	100	96.5	97	0	19	70-120	
1,2-Dichloroethane	100	104	104	1	11	64-138	
1,2-Dichloropropane	100	100	100	2	12	72-131	
1,3-Dichlorobenzene	100	98.8	99	3	18	71-120	
1,4-Dichlorobenzene	100	96.4	96	3	17	72-120	
2-Butanone (MEK)	200	156	78	12	23	34-153	
2-Hexanone	200	195	97	9	12	21-184	
4-Methyl-2-pentanone (MIBK)	200	191	96	8	16	53-147	
Acetone	200	129	65	12	35	19-133	
Benzene	100	99.8	100	2	10	69-127	
Dichlorobromomethane	100	105	105	3	13	75-128	
Bromoform	100	75.6	76	6	13	61-135	
Bromomethane	100	100	100	5	35	10-148	
Carbon disulfide	100	122	122	2	18	46-143	
Carbon tetrachloride	100	99.2	99	2	17	53-175	
Chlorobenzene	100	99.0	99	4	12	76-120	
Chloroethane	100	100	100	0	35	10-141	
Chloroform	100	99.9	100	3	11	74-125	
Chloromethane	100	104	104	2	25	34-127	
cis-1,2-Dichloroethene	100	106	99	1	11	69-127	
cis-1,3-Dichloropropene	100	104	104	2	13	68-120	
Cyclohexane	100	76.9	77	2	35	56-135	
Chlorodibromomethane	100	101	101	4	15	62-131	
Dichlorodifluoromethane	100	92.6	93	4	34	45-130	
Ethylbenzene	100	104	104	5	15	72-121	
Isopropylbenzene	100	104	104	4	16	70-132	
Methyl acetate	200	192	96	10	14	52-139	
Methyl tert-butyl ether	100	104	104	5	12	67-125	
Methylcyclohexane	100	91.6	92	0	35	46-139	
Methylene Chloride	100	89.1	89	14	12	52-137	F2
Styrene	100	104	104	3	14	74-125	
Tetrachloroethene	100	95.8	96	2	18	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1256811.D

Lab ID: 240-78519-2 MSD Client ID: MRC-MW25A-042117 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	100	98.1	98	4	14	69-125	
trans-1,2-Dichloroethene	100	103	103	1	11	66-131	
trans-1,3-Dichloropropene	100	91.3	91	2	14	59-120	
Trichloroethene	100	278	110	1	12	68-129	
Trichlorofluoromethane	100	112	112	1	26	28-172	
Vinyl chloride	100	97.2	97	0	12	55-123	
Xylenes, Total	200	203	102	4	14	71-122	
m-Xylene & p-Xylene	100	101	101	3	15	70-121	
o-Xylene	100	102	102	5	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1890.D

Lab ID: 240-78241-H-9 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	5000	5350	95	0	13	57-156	
1,1-Dichloroethane	5000	5680	94	1	11	69-122	
1,1-Dichloroethene	5000	5220	104	1	14	62-127	
Benzene	5000	4770	95	1	10	69-127	
Chloroethane	5000	5510	110	1	35	10-141	
cis-1,2-Dichloroethene	5000	13000	54	3	11	69-127	F1
Ethylbenzene	5000	4770	95	0	15	72-121	
Tetrachloroethene	5000	4660	93	3	18	69-126	
Toluene	5000	4730	95	3	14	69-125	
trans-1,2-Dichloroethene	5000	4930	99	0	11	66-131	
Trichloroethene	5000	4530	91	1	12	68-129	
Vinyl chloride	5000	7500	99	2	12	55-123	
Xylenes, Total	10000	9370	94	1	14	71-122	
m-Xylene & p-Xylene	5000	4710	94	1	15	70-121	
o-Xylene	5000	4660	93	2	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1918.D

Lab ID: 240-78330-B-5 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	200	186	93	1	13	57-156	
1,1-Dichloroethane	200	181	90	7	11	69-122	
1,1-Dichloroethene	200	189	95	2	14	62-127	
Benzene	200	175	87	7	10	69-127	
Chloroethane	200	207	103	8	35	10-141	
cis-1,2-Dichloroethene	200	485	79	10	11	69-127	
Ethylbenzene	200	197	98	4	15	72-121	
Tetrachloroethene	200	193	97	0	18	69-126	
Toluene	200	197	98	5	14	69-125	
trans-1,2-Dichloroethene	200	192	91	7	11	66-131	
Trichloroethene	200	164	80	7	12	68-129	
Vinyl chloride	200	448	90	4	12	55-123	
Xylenes, Total	400	396	99	3	14	71-122	
m-Xylene & p-Xylene	200	197	98	3	15	70-121	
o-Xylene	200	199	99	4	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

Sample not included in SDG.

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM2020.D

Lab ID: 240-78458-A-6 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	200	187	94	1	13	57-156	
1,1-Dichloroethane	200	197	94	2	11	69-122	
1,1-Dichloroethene	200	198	95	0	14	62-127	
Benzene	200	184	92	1	10	69-127	
Chloroethane	200	219	109	2	35	10-141	
Ethylbenzene	200	209	104	1	15	72-121	
Tetrachloroethene	200	200	100	2	18	69-126	
Toluene	200	206	103	0	14	69-125	
trans-1,2-Dichloroethene	200	219	96	2	11	66-131	
Trichloroethene	200	190	84	2	12	68-129	
Xylenes, Total	400	408	102	0	14	71-122	
m-Xylene & p-Xylene	200	205	102	0	15	70-121	
o-Xylene	200	203	102	1	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab File ID: UXM1869.D Lab Sample ID: MB 240-275993/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 04/24/2017 18:20

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-275993/4	UXM1866.D	04/24/2017 17:10
TB-041817	240-78295-1	UXM1882.D	04/24/2017 23:21
MRC-MW14B-041817	240-78295-2	UXM1883.D	04/24/2017 23:43
MRC-MW100A-041817	240-78295-3	UXM1884.D	04/25/2017 00:44
MRC-MW100B-041817	240-78295-4	UXM1885.D	04/25/2017 01:07
MRC-MW72B-041817	240-78295-5	UXM1886.D	04/25/2017 01:30
	240-78241-E-9 MS	UXM1889.D	04/25/2017 02:39
	240-78241-H-9 MSD	UXM1890.D	04/25/2017 03:02

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-275993/7

Matrix: Water | Lab File ID: UXM1869.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/24/2017 18:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-275993/7

Matrix: Water | Lab File ID: UXM1869.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/24/2017 18:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 275993 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	90		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		61-138

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab File ID: UXM1899.D Lab Sample ID: MB 240-276055/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 04/25/2017 09:13

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-276055/4	UXM1896.D	04/25/2017 08:04
TB-041917	240-78379-1	UXM1912.D	04/25/2017 14:27
MRC-MW81B-041917	240-78379-2	UXM1913.D	04/25/2017 14:50
MRC-MW92C-041917	240-78379-3	UXM1914.D	04/25/2017 15:14
MRC-MW48A-041917	240-78379-4	UXM1915.D	04/25/2017 15:36
MRC-DUP12-041917	240-78379-5	UXM1916.D	04/25/2017 15:59
	240-78330-B-5 MS	UXM1917.D	04/25/2017 16:22
	240-78330-B-5 MSD	UXM1918.D	04/25/2017 16:45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-276055/7

Matrix: Water | Lab File ID: UXM1899.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 09:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-276055/7

Matrix: Water | Lab File ID: UXM1899.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/25/2017 09:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276055 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	83		69-124
460-00-4	4-Bromofluorobenzene (Surr)	98		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		61-138

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab File ID: UXM2001.D Lab Sample ID: MB 240-276429/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 04/27/2017 10:33

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-276429/4	UXM1998.D	04/27/2017 09:23
TB-042017	240-78454-1	UXM2013.D	04/27/2017 15:29
MRC-MW98A-042017	240-78454-2	UXM2014.D	04/27/2017 15:52
MRC-MW98B-042017	240-78454-3	UXM2015.D	04/27/2017 16:15
MRC-MW111A-042017	240-78454-4	UXM2016.D	04/27/2017 16:38
MRC-MW111B-042017	240-78454-5	UXM2017.D	04/27/2017 17:01
	240-78458-A-6 MS	UXM2019.D	04/27/2017 17:48
	240-78458-A-6 MSD	UXM2020.D	04/27/2017 18:11

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-276429/7

Matrix: Water | Lab File ID: UXM2001.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 10:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-276429/7

Matrix: Water | Lab File ID: UXM2001.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 10:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276429 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		61-138

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab File ID: U1256789.D Lab Sample ID: MB 240-276598/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 04/27/2017 18:46

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-276598/4	U1256786.D	04/27/2017 17:36
TB-042117	240-78519-1	U1256807.D	04/28/2017 02:03
MRC-MW25A-042117	240-78519-2	U1256808.D	04/28/2017 02:28
MRC-MW08B-042117	240-78519-3	U1256809.D	04/28/2017 02:52
MRC-MW25A-042117 MS	240-78519-2 MS	U1256810.D	04/28/2017 03:17
MRC-MW25A-042117 MSD	240-78519-2 MSD	U1256811.D	04/28/2017 03:41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-276598/7

Matrix: Water | Lab File ID: U1256789.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 18:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276598 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-276598/7

Matrix: Water | Lab File ID: U1256789.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/27/2017 18:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 276598 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab File ID: BFB3508.D BFB Injection Date: 03/30/2017

Instrument ID: A3UX12 BFB Injection Time: 12:55

Analysis Batch No.: 272636

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.8	
75	30.0 - 60.0 % of mass 95	44.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	80.3	
175	5.0 - 9.0 % of mass 174	6.1	(7.7) 1
176	95.0 - 101.0 % of mass 174	79.2	(98.6) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272636/6	U1256165.D	03/30/2017	14:15
	STD8260 240-272636/7	U1256166.D	03/30/2017	14:40
	STD8260 240-272636/8	U1256167.D	03/30/2017	15:04
	ICIS 240-272636/9	U1256168a.D	03/30/2017	15:28
	STD8260 240-272636/10	U1256169.D	03/30/2017	15:53
	STD8260 240-272636/11	U1256170.D	03/30/2017	16:17
	ICV 240-272636/19	U1256172.D	03/30/2017	17:09

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272636/6	U1256165.D
Level 2	STD8260 240-272636/7	U1256166.D
Level 3	STD8260 240-272636/8	U1256167.D
Level 4	ICIS 240-272636/9	U1256168a.D
Level 5	STD8260 240-272636/10	U1256169.D
Level 6	STD8260 240-272636/11	U1256170.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3798 0.4766	0.3214	0.4275	0.4725	0.4854	Ave		0.4272			0.1000	15.3		20.0			
Chloromethane	0.5018 0.5166	0.4950	0.5342	0.5144	0.5206	Ave		0.5137			0.1000	2.7		20.0			
Vinyl chloride	0.4946 0.5486	0.4759	0.5444	0.5327	0.5490	Ave		0.5242			0.1000	6.0		20.0			
Butadiene	0.4937 0.5211	0.4355	0.5011	0.5174	0.5331	Ave		0.5003				6.9		20.0			
Bromomethane	0.2405 0.2668	0.2512	0.2726	0.2645	0.2780	Ave		0.2623			0.0500	5.3		20.0			
Chloroethane	0.3009 0.3306	0.2714	0.3204	0.3113	0.3307	Ave		0.3109			0.0500	7.2		20.0			
Dichlorofluoromethane	0.6919 0.6606	0.5826	0.6566	0.6472	0.6648	Ave		0.6506				5.6		20.0			
Trichlorofluoromethane	0.3709 0.5153	0.3240	0.4721	0.4860	0.5147	Ave		0.4471			0.1000	18.0		20.0			
Ethyl ether	0.2324 0.2745	0.2641	0.2762	0.2765	0.2741	Ave		0.2663				6.5		20.0			
Acrolein	0.0343 0.0441	0.0286	0.0455	0.0441	0.0446	Ave		0.0402				17.5		20.0			
1,1-Dichloroethene	0.5546 0.6162	0.5673	0.6038	0.5773	0.6104	Ave		0.5883			0.1000	4.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2905 0.3480	0.2826	0.3105	0.3279	0.3444	Ave		0.3173			0.0500	8.6		20.0			
Acetone	+++++ 0.1200	0.1724	0.1041	0.1083	0.1221	Lin1	0.0734	0.1166			0.0100				0.9960		0.9900
Iodomethane	0.4944 0.5532	0.5254	0.5564	0.5281	0.5503	Ave		0.5346				4.4		20.0			
Carbon disulfide	1.2572 1.0916	1.1908	1.0252	1.0345	1.0856	Ave		1.1141			0.1000	8.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	+++++ 0.3042	0.2591	0.3130	0.4835	0.3622	Ave		0.3444				25.0	*	20.0			
Methyl acetate	0.1773 0.2193	0.2236	0.2275	0.2192	0.2190	Ave		0.2143			0.1000	8.6		20.0			
Methylene Chloride	+++++ 0.4872	1.5296	0.5897	0.4995	0.4909	Lin1	1.0661	0.4653			0.1000				1.0000		0.9900
2-Methyl-2-propanol	0.0268 0.0310	0.0250	0.0313	0.0301	0.0314	Ave		0.0293				9.3		20.0			
Acrylonitrile	0.1181 0.1255	0.1222	0.1281	0.1254	0.1256	Ave		0.1241				2.8		20.0			
trans-1,2-Dichloroethene	0.4332 0.4658	0.4192	0.4531	0.4396	0.4597	Ave		0.4451			0.1000	4.0		20.0			
Methyl tert-butyl ether	0.8236 0.8305	0.7263	0.8018	0.7920	0.8238	Ave		0.7997			0.1000	4.9		20.0			
Hexane	0.3388 0.3851	0.3177	0.3437	0.3710	0.3907	Ave		0.3578				8.1		20.0			
1,1-Dichloroethane	0.5402 0.5652	0.5243	0.5659	0.5564	0.5697	Ave		0.5536			0.2000	3.2		20.0			
Vinyl acetate	0.3784 0.4974	0.3781	0.4477	0.4491	0.4815	Ave		0.4387				11.5		20.0			
2,2-Dichloropropane	0.2093 0.2395	0.1974	0.2246	0.2389	0.2510	Ave		0.2268				9.0		20.0			
cis-1,2-Dichloroethene	0.4743 0.4849	0.4668	0.4920	0.4699	0.4886	Ave		0.4794			0.1000	2.2		20.0			
2-Butanone (MEK)	0.1508 0.1552	0.1393	0.1388	0.1470	0.1592	Ave		0.1484			0.0100	5.6		20.0			
Chlorobromomethane	0.2661 0.2642	0.2938	0.2616	0.2701	0.2615	Ave		0.2696				4.6		20.0			
Tetrahydrofuran	0.0903 0.0898	0.0892	0.0934	0.0887	0.0899	Ave		0.0902				1.8		20.0			
Chloroform	0.4815 0.5310	0.5015	0.5333	0.5232	0.5323	Ave		0.5171			0.2000	4.1		20.0			
1,1,1-Trichloroethane	0.3363 0.3596	0.2926	0.3480	0.3544	0.3724	Ave		0.3439			0.1000	8.1		20.0			
Cyclohexane	0.4286 0.5333	0.4700	0.4740	0.5035	0.5299	Ave		0.4899			0.1000	8.2		20.0			
1,1-Dichloropropene	0.4223 0.4484	0.4000	0.4370	0.4395	0.4522	Ave		0.4332				4.5		20.0			
Carbon tetrachloride	0.2426 0.3478	0.2568	0.3048	0.3164	0.3416	Ave		0.3017			0.1000	14.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0048 0.0087	0.0046	0.0074	0.0073	0.0083	Lin1	-0.070	0.0083							0.9960		0.9900
Benzene	1.3655 1.4239	1.3310	1.4028	1.3828	1.4152	Ave		1.3869			0.5000	2.5		20.0			
1,2-Dichloroethane	0.3799 0.4037	0.3568	0.4100	0.3873	0.4069	Ave		0.3908			0.1000	5.2		20.0			
n-Heptane	+++++ 0.1879	0.7476	0.2166	0.1987	0.1940	Lin1	0.5549	0.1767							0.9990		0.9900
Trichloroethene	0.3369 0.3552	0.3575	0.3489	0.3421	0.3532	Ave		0.3490			0.1500	2.3		20.0			
Methylcyclohexane	0.4044 0.4857	0.4143	0.4244	0.4604	0.4774	Ave		0.4444			0.1000	7.8		20.0			
1,2-Dichloropropane	0.3108 0.3459	0.3005	0.3509	0.3385	0.3477	Ave		0.3324			0.1000	6.4		20.0			
Dibromomethane	0.2333 0.2211	0.1946	0.2240	0.2228	0.2234	Ave		0.2199				6.0		20.0			
1,4-Dioxane	+++++ 0.0041	0.0019	0.0037	0.0032	0.0037	Lin1	-0.049	0.0039							0.9930		0.9900
Dichlorobromomethane	0.3381 0.3950	0.3299	0.3717	0.3674	0.3851	Ave		0.3645			0.1500	7.1		20.0			
2-Chloroethyl vinyl ether	0.1131 0.1401	0.0993	0.1215	0.1256	0.1330	Ave		0.1221				11.9		20.0			
cis-1,3-Dichloropropene	0.3667 0.5663	0.3833	0.5045	0.5069	0.5488	Ave		0.4794			0.1500	17.6		20.0			
4-Methyl-2-pentanone (MIBK)	0.2894 0.2768	0.2436	0.2688	0.2683	0.2778	Ave		0.2708			0.0500	5.7		20.0			
Toluene	2.0480 1.9258	1.7897	1.9470	1.8851	1.9530	Ave		1.9248			0.4000	4.4		20.0			
trans-1,3-Dichloropropene	0.3721 0.6229	0.4055	0.5396	0.5651	0.6185	Lin1	-0.171	0.6116			0.1000				0.9980		0.9900
Ethyl methacrylate	0.4494 0.5770	0.4203	0.5309	0.5432	0.5842	Ave		0.5175				13.1		20.0			
1,1,2-Trichloroethane	0.3870 0.3781	0.3892	0.3805	0.3799	0.3820	Ave		0.3828			0.1000	1.1		20.0			
Tetrachloroethene	0.4069 0.4429	0.3989	0.4345	0.4265	0.4538	Ave		0.4272			0.1500	4.9		20.0			
1,3-Dichloropropane	0.6108 0.7292	0.7360	0.7395	0.7235	0.7318	Ave		0.7118				7.0		20.0			
2-Hexanone	0.2236 0.2785	0.2173	0.2442	0.2563	0.2893	Ave		0.2515			0.0500	11.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2610 0.3862	0.2876	0.3315	0.3494	0.3776	Ave		0.3322				14.9		20.0			
Ethylene Dibromide	0.3559 0.3752	0.3561	0.3754	0.3729	0.3887	Ave		0.3707				3.4		20.0			
Chlorobenzene	1.2636 1.2675	1.2242	1.2644	1.2368	1.2814	Ave		1.2563			0.3000	1.7		20.0			
1,1,1,2-Tetrachloroethane	0.3125 0.4030	0.3124	0.3651	0.3716	0.3961	Ave		0.3601				11.0		20.0			
Ethylbenzene	0.5804 0.6750	0.5503	0.6585	0.6500	0.6848	Ave		0.6332				8.7		20.0			
m-Xylene & p-Xylene	0.7334 0.8442	0.7084	0.8197	0.8178	0.8584	Ave		0.7970				7.7		20.0			
o-Xylene	0.7700 0.8411	0.7261	0.8165	0.8054	0.8545	Ave		0.8023				5.9		20.0			
Styrene	1.2532 1.4940	1.2081	1.4153	1.4240	1.4954	Ave		1.3817			0.3000	8.9		20.0			
Bromoform	+++++ 0.2534	0.1295	0.2001	0.2131	0.2471	Lin1	-0.158	0.2463			0.1000				0.9950		0.9900
Isopropylbenzene	1.6354 1.9795	1.6278	1.8819	1.8811	1.9883	Ave		1.8323			0.1000	8.8		20.0			
1,1,2,2-Tetrachloroethane	1.0080 0.9169	0.9231	0.9165	0.9466	0.9451	Ave		0.9427			0.3000	3.7		20.0			
Bromobenzene	0.9563 0.9487	0.8895	0.9650	0.9256	0.9585	Ave		0.9406				3.0		20.0			
1,2,3-Trichloropropane	0.3010 0.3043	0.2803	0.3217	0.3117	0.3130	Ave		0.3053				4.7		20.0			
trans-1,4-Dichloro-2-butene	0.0997 0.2140	0.0769	0.1379	0.1646	0.1937	Qua	-0.093	0.1481	0.0011338						1.0000		0.9900
N-Propylbenzene	0.8059 0.9528	0.8174	0.9052	0.9203	0.9591	Ave		0.8934				7.4		20.0			
2-Chlorotoluene	0.6908 0.8373	0.7954	0.8286	0.8369	0.8618	Ave		0.8085				7.6		20.0			
1,3,5-Trimethylbenzene	2.5646 2.8894	2.4958	2.7445	2.8008	2.8865	Ave		2.7303				6.1		20.0			
4-Chlorotoluene	0.8868 0.9055	0.8747	0.8883	0.8823	0.9172	Ave		0.8925				1.8		20.0			
tert-Butylbenzene	2.1890 2.3837	2.1160	2.3291	2.3301	2.3973	Ave		2.2909				4.9		20.0			
1,2,4-Trimethylbenzene	2.7829 3.0685	2.6833	2.9725	3.0191	3.1020	Ave		2.9381				5.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.1279 3.4067	2.9456	3.2539	3.2645	3.4405	Ave		3.2398				5.7		20.0			
1,3-Dichlorobenzene	1.6949 1.7509	1.5897	1.7326	1.7351	1.7754	Ave		1.7131			0.6000	3.8		20.0			
4-Isopropyltoluene	2.6277 3.0158	2.5390	2.8553	2.9315	3.0317	Ave		2.8335				7.3		20.0			
1,4-Dichlorobenzene	1.9156 1.8053	1.7885	1.8271	1.7914	1.8188	Ave		1.8245			0.5000	2.6		20.0			
n-Butylbenzene	2.1422 2.4570	2.0092	2.2766	2.3454	2.4687	Ave		2.2832				7.9		20.0			
1,2-Dichlorobenzene	1.7500 1.6992	1.5453	1.7047	1.6996	1.6947	Ave		1.6822			0.4000	4.2		20.0			
1,2-Dibromo-3-Chloropropane	0.1586 0.1963	0.1312	0.1751	0.1838	0.1849	Ave		0.1717			0.0500	13.7		20.0			
1,2,4-Trichlorobenzene	1.0232 1.0048	0.9198	0.9750	0.9843	0.9997	Ave		0.9845			0.2000	3.6		20.0			
Hexachlorobutadiene	0.3806 0.4187	0.3870	0.3865	0.4120	0.4151	Ave		0.4000				4.3		20.0			
Naphthalene	2.3168 2.7476	2.1622	2.5637	2.6125	2.7152	Ave		2.5196				9.2		20.0			
1,2,3-Trichlorobenzene	0.7700 0.8915	0.8371	0.8678	0.8716	0.8989	Ave		0.8562				5.5		20.0			
Dibromofluoromethane (Surr)	0.2719 0.2850	0.2713	0.2984	0.2826	0.2860	Ave		0.2825				3.6		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2948 0.3335	0.3199	0.3468	0.3381	0.3394	Ave		0.3288				5.7		20.0			
Toluene-d8 (Surr)	1.5231 1.6132	1.4413	1.6273	1.5894	1.6540	Ave		1.5747				5.0		20.0			
4-Bromofluorobenzene (Surr)	0.6141 0.6057	0.5506	0.5970	0.5845	0.6185	Ave		0.5951				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272636/6	U1256165.D
Level 2	STD8260 240-272636/7	U1256166.D
Level 3	STD8260 240-272636/8	U1256167.D
Level 4	ICIS 240-272636/9	U1256168a.D
Level 5	STD8260 240-272636/10	U1256169.D
Level 6	STD8260 240-272636/11	U1256170.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	10387 1650287	17839	235715	534631	1098536	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	13723 1788898	27472	294496	581996	1178332	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	13526 1899662	26414	300158	602769	1242700	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	13502 1804705	24171	276298	585437	1206701	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	6579 923902	13942	150267	299338	629294	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	8229 1144935	15063	176666	352205	748424	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	18923 2287612	32335	362021	732298	1504661	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	10144 1784382	17979	260281	549866	1164887	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	6357 950495	14655	152304	312881	620302	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	4697 764019	7933	125410	249497	504481	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	15167 2133861	31484	332896	653227	1381644	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	7945 1204999	15684	171203	370990	779604	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 830965	19136	114791	245099	552506	+++++ 120	2.00	20.0	40.0	80.0
Iodomethane	FB	Ave	13521 1915748	29160	306746	597576	1245440	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	34383 3780141	66086	565210	1170503	2457140	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	+++++ 1053418	14380	172555	547135	819846	+++++ 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	24249 3797795	62045	627057	1240291	2478483	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 1687046	84889	325118	565167	1111089	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	7324 1075117	13878	172788	340488	711546	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	32298 4347478	67809	706144	1418757	2842913	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	11847 1612990	23263	249807	497410	1040360	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	22525 2875968	40307	442072	896129	1864615	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	9266 1333542	17632	189493	419744	884309	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	14774 1957094	29099	311990	629544	1289355	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	10348 1722538	20984	246848	508114	1089728	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	5725 829293	10957	123828	270341	568012	0.500 60.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	12972 1679268	25905	271231	531666	1105827	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	8248 1075178	15462	153041	332648	720540	1.00 120	2.00	20.0	40.0	80.0
Chlorobromomethane	FB	Ave	7278 914991	16307	144237	305608	591827	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	4938 622053	9902	102964	200739	407113	1.00 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	13170 1838957	27833	294036	592002	1204689	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9198 1245133	16241	191882	401055	842911	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	11722 1846652	26086	261356	569743	1199249	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	11551 1552863	22197	240930	497325	1023540	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6636 1204546	14253	168073	357956	773225	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Lin1	3253 751277	6419	102122	206287	467963	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	37345 4930791	73866	773422	1564666	3203116	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	10390 1398059	19800	226066	438267	921018	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 650720	41488	119441	224871	439104	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	9214 1230146	19841	192375	387112	799417	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	11059 1682038	22993	234011	520952	1080435	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	8499 1197727	16679	193443	383036	787005	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	6381 765740	10802	123502	252142	505669	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Lin1	+++++ 285936	2096	40650	72125	169169	+++++ 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	9247 1367766	18309	204920	415700	871673	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	6185 970153	11027	133993	284141	602023	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	10029 1960941	21274	278147	573509	1242172	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	15831 1917228	27041	296409	607266	1257360	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	43807 5280190	76383	828912	1653258	3422673	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Lin1	7960 1707811	17307	229724	495584	1083933	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	9613 1581912	17937	226009	476390	1023750	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	8278 1036571	16609	162001	333197	669446	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	8704 1214415	17024	184978	374049	795236	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	13066 1999329	31412	314820	634561	1282513	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	9567 1527118	18549	207948	449600	1014120	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5583 1058792	12276	141147	306443	661817	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	7613 1028718	15200	159806	327076	681222	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	27030 3475296	52251	538292	1084683	2245655	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6685 1104795	13335	155424	325930	694093	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	12415 1850668	23485	280352	570063	1200205	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	15688 2314565	30235	348963	717251	1504343	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	16470 2305969	30992	347623	706332	1497591	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	26807 4096172	51564	602549	1248847	2620789	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Lin1	+++++ 694726	5529	85175	186912	433002	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	34982 5427334	69474	801190	1649820	3484538	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	11227 1432255	21199	217877	460551	947934	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	10651 1481916	20428	229390	450310	961374	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	3353 475412	6438	76463	151635	313890	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Qua	1110 334219	1766	32776	80087	194314	0.500 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8976 1488380	18773	215188	447718	961912	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7694 1307965	18267	196972	407166	864345	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	28564 4513521	57317	652407	1362650	2895067	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	9877 1414436	20087	211167	429267	919908	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	24381 3723651	48595	553654	1133610	2404451	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	30996 4793394	61623	706613	1468834	3111231	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	34839 5321557	67647	773502	1588217	3450738	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	18878 2735053	36509	411862	844145	1780637	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	29267 4710996	58310	678759	1426220	3040661	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	21336 2820044	41074	434337	871537	1824241	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272636

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2017 14:15 Calibration End Date: 03/30/2017 16:17 Calibration ID: 39201

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	23860 3838102	46143	541188	1141046	2476002	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	19492 2654255	35489	405223	826882	1699733	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1766 306679	3014	41633	89401	185467	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	11396 1569667	21123	231770	478896	1002639	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4239 654019	8887	91885	200466	416337	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	25804 4291977	49656	609427	1271025	2723259	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	8576 1392618	19225	206293	424049	901567	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	7436 986969	15056	164528	319763	647426	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	8064 1154935	17754	191226	382566	768244	0.500 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	32581 4423100	61514	692795	1393905	2898691	0.500 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	13137 1660750	23498	254145	512659	1083953	0.500 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICV 240-272636/19 Calibration Date: 03/30/2017 17:09

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256172.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4272	0.3938	0.1000	0.0184	0.0200	-7.8	20.0
Chloromethane	Ave	0.5137	0.4827	0.1000	0.0188	0.0200	-6.0	20.0
Vinyl chloride	Ave	0.5242	0.5142	0.1000	0.0196	0.0200	-1.9	20.0
Butadiene	Ave	0.5003	0.4863		0.0194	0.0200	-2.8	30.0
Bromomethane	Ave	0.2623	0.2562	0.0500	0.0195	0.0200	-2.3	20.0
Chloroethane	Ave	0.3109	0.3181	0.0500	0.0205	0.0200	2.3	20.0
Dichlorofluoromethane	Ave	0.6506	0.6495		0.0200	0.0200	-0.2	20.0
Trichlorofluoromethane	Ave	0.4471	0.4961	0.1000	0.0222	0.0200	10.9	20.0
Ethyl ether	Ave	0.2663	0.2843		0.0214	0.0200	6.8	20.0
Acrolein	Ave	0.0402	0.0521		0.130	0.100	29.6	50.0
1,1-Dichloroethene	Ave	0.5883	0.6308	0.1000	0.0214	0.0200	7.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3173	0.3503	0.0500	0.0221	0.0200	10.4	20.0
Acetone	Lin1		0.0856	0.0100	0.0287	0.0400	-28.2	50.0
Iodomethane	Ave	0.5346	0.5663		0.0212	0.0200	5.9	20.0
Carbon disulfide	Ave	1.114	1.153	0.1000	0.0207	0.0200	3.5	20.0
3-Chloro-1-propene	Ave	0.3444	0.4503		0.0261	0.0200	30.7*	20.0
Methyl acetate	Ave	0.2143	0.2225	0.1000	0.0415	0.0400	3.8	20.0
Methylene Chloride	Lin1		0.4987	0.1000	0.0191	0.0200	-4.3	50.0
2-Methyl-2-propanol	Ave	0.0293	0.0332		0.226	0.200	13.2	50.0
Acrylonitrile	Ave	0.1241	0.1275		0.205	0.200	2.7	20.0
Methyl tert-butyl ether	Ave	0.7997	0.8122	0.1000	0.0203	0.0200	1.6	20.0
trans-1,2-Dichloroethene	Ave	0.4451	0.4745	0.1000	0.0213	0.0200	6.6	20.0
Hexane	Ave	0.3578	0.4036		0.0226	0.0200	12.8	20.0
1,1-Dichloroethane	Ave	0.5536	0.5725	0.2000	0.0207	0.0200	3.4	20.0
Vinyl acetate	Ave	0.4387	0.5577		0.0254	0.0200	27.1	50.0
2,2-Dichloropropane	Ave	0.2268	0.2373		0.0209	0.0200	4.6	20.0
cis-1,2-Dichloroethene	Ave	0.4794	0.4835	0.1000	0.0202	0.0200	0.9	20.0
2-Butanone (MEK)	Ave	0.1484	0.1404	0.0100	0.0379	0.0400	-5.4	20.0
Chlorobromomethane	Ave	0.2696	0.2593		0.0192	0.0200	-3.8	20.0
Tetrahydrofuran	Ave	0.0902	0.0914		0.0405	0.0400	1.3	20.0
Chloroform	Ave	0.5171	0.5274	0.2000	0.0204	0.0200	2.0	20.0
1,1,1-Trichloroethane	Ave	0.3439	0.3578	0.1000	0.0208	0.0200	4.0	20.0
Cyclohexane	Ave	0.4899	0.5377	0.1000	0.0220	0.0200	9.8	20.0
1,1-Dichloropropene	Ave	0.4332	0.4507		0.0208	0.0200	4.0	20.0
Carbon tetrachloride	Ave	0.3017	0.3282	0.1000	0.0218	0.0200	8.8	20.0
Isobutyl alcohol	Lin1		0.0085		0.518	0.500	3.7	20.0
Benzene	Ave	1.387	1.441	0.5000	0.0208	0.0200	3.9	20.0
1,2-Dichloroethane	Ave	0.3908	0.3964	0.1000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.2109		0.0207	0.0200	3.6	20.0
Trichloroethene	Ave	0.3490	0.3498	0.1500	0.0200	0.0200	0.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICV 240-272636/19 Calibration Date: 03/30/2017 17:09

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256172.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4444	0.4784	0.1000	0.0215	0.0200	7.6	20.0
1,2-Dichloropropane	Ave	0.3324	0.3500	0.1000	0.0211	0.0200	5.3	20.0
Dibromomethane	Ave	0.2199	0.2198		0.0200	0.0200	-0.0	20.0
1,4-Dioxane	Lin1		0.0043		0.451	0.400	12.8	50.0
Dichlorobromomethane	Ave	0.3645	0.3873	0.1500	0.0212	0.0200	6.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1221	0.1307		0.0214	0.0200	7.1	20.0
cis-1,3-Dichloropropene	Ave	0.4794	0.5432	0.1500	0.0227	0.0200	13.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2708	0.2766	0.0500	0.0409	0.0400	2.2	20.0
Toluene	Ave	1.925	1.934	0.4000	0.0201	0.0200	0.5	20.0
trans-1,3-Dichloropropene	Lin1		0.5770	0.1000	0.0191	0.0200	-4.3	20.0
Ethyl methacrylate	Ave	0.5175	0.5589		0.0216	0.0200	8.0	20.0
1,1,2-Trichloroethane	Ave	0.3828	0.3860	0.1000	0.0202	0.0200	0.9	20.0
Tetrachloroethene	Ave	0.4272	0.4388	0.1500	0.0205	0.0200	2.7	20.0
1,3-Dichloropropane	Ave	0.7118	0.7163		0.0201	0.0200	0.6	20.0
2-Hexanone	Ave	0.2515	0.2513	0.0500	0.0400	0.0400	-0.1	20.0
Chlorodibromomethane	Ave	0.3322	0.3621		0.0218	0.0200	9.0	20.0
Ethylene Dibromide	Ave	0.3707	0.3784		0.0204	0.0200	2.1	20.0
Chlorobenzene	Ave	1.256	1.257	0.3000	0.0200	0.0200	0.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3601	0.3845		0.0214	0.0200	6.8	20.0
Ethylbenzene	Ave	0.6332	0.6610		0.0209	0.0200	4.4	20.0
m-Xylene & p-Xylene	Ave	0.7970	0.8258		0.0207	0.0200	3.6	20.0
o-Xylene	Ave	0.8023	0.8155		0.0203	0.0200	1.6	20.0
Styrene	Ave	1.382	1.434	0.3000	0.0208	0.0200	3.8	20.0
Bromoform	Lin1		0.2314	0.1000	0.0194	0.0200	-2.9	20.0
Isopropylbenzene	Ave	1.832	1.928	0.1000	0.0210	0.0200	5.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9427	0.9583	0.3000	0.0203	0.0200	1.7	20.0
Bromobenzene	Ave	0.9406	0.9531		0.0203	0.0200	1.3	20.0
1,2,3-Trichloropropane	Ave	0.3053	0.3246		0.0213	0.0200	6.3	20.0
trans-1,4-Dichloro-2-butene	Qua		0.2010		0.0235	0.0200	17.6	20.0
N-Propylbenzene	Ave	0.8934	0.9509		0.0213	0.0200	6.4	20.0
2-Chlorotoluene	Ave	0.8085	0.8388		0.0207	0.0200	3.7	20.0
1,3,5-Trimethylbenzene	Ave	2.730	2.854		0.0209	0.0200	4.5	20.0
4-Chlorotoluene	Ave	0.8925	0.9150		0.0205	0.0200	2.5	20.0
tert-Butylbenzene	Ave	2.291	2.381		0.0208	0.0200	3.9	20.0
1,2,4-Trimethylbenzene	Ave	2.938	3.006		0.0205	0.0200	2.3	20.0
sec-Butylbenzene	Ave	3.240	3.368		0.0208	0.0200	4.0	20.0
1,3-Dichlorobenzene	Ave	1.713	1.763	0.6000	0.0206	0.0200	2.9	20.0
4-Isopropyltoluene	Ave	2.833	3.028		0.0214	0.0200	6.9	20.0
1,4-Dichlorobenzene	Ave	1.824	1.819	0.5000	0.0199	0.0200	-0.3	20.0
n-Butylbenzene	Ave	2.283	2.368		0.0207	0.0200	3.7	20.0
1,2-Dichlorobenzene	Ave	1.682	1.709	0.4000	0.0203	0.0200	1.6	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab File ID: BFB3530.D BFB Injection Date: 04/27/2017

Instrument ID: A3UX12 BFB Injection Time: 16:48

Analysis Batch No.: 276598

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.5	
75	30.0 - 60.0 % of mass 95	48.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	76.7	
175	5.0 - 9.0 % of mass 174	5.5	(7.1) 1
176	95.0 - 101.0 % of mass 174	75.0	(97.7) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-276598/3	U1256785.D	04/27/2017	17:12
	LCS 240-276598/4	U1256786.D	04/27/2017	17:36
	CCV 240-276598/5	U1256787.D	04/27/2017	17:59
	MB 240-276598/7	U1256789.D	04/27/2017	18:46
TB-042117	240-78519-1	U1256807.D	04/28/2017	02:03
MRC-MW25A-042117	240-78519-2	U1256808.D	04/28/2017	02:28
MRC-MW08B-042117	240-78519-3	U1256809.D	04/28/2017	02:52
MRC-MW25A-042117 MS	240-78519-2 MS	U1256810.D	04/28/2017	03:17
MRC-MW25A-042117 MSD	240-78519-2 MSD	U1256811.D	04/28/2017	03:41

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-276598/3 Calibration Date: 04/27/2017 17:12

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256785.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4272	0.5130	0.1000	0.0240	0.0200	20.1*	20.0
Chloromethane	Ave	0.5137	0.5200	0.1000	0.0202	0.0200	1.2	20.0
Vinyl chloride	Ave	0.5242	0.5292	0.1000	0.0202	0.0200	1.0	20.0
Butadiene	Ave	0.5003	0.5089		0.0203	0.0200	1.7	20.0
Bromomethane	Ave	0.2623	0.2545	0.0500	0.0194	0.0200	-3.0	20.0
Chloroethane	Ave	0.3109	0.3019	0.0500	0.0194	0.0200	-2.9	20.0
Dichlorofluoromethane	Ave	0.6506	0.6471		0.0199	0.0200	-0.5	20.0
Trichlorofluoromethane	Ave	0.4471	0.5244	0.1000	0.0235	0.0200	17.3	20.0
Ethyl ether	Ave	0.2663	0.2567		0.0193	0.0200	-3.6	20.0
Acrolein	Ave	0.0402	0.0461		0.115	0.100	14.7	50.0
1,1-Dichloroethene	Ave	0.5883	0.5607	0.1000	0.0191	0.0200	-4.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3173	0.3268	0.0500	0.0206	0.0200	3.0	20.0
Acetone	Lin1		0.1015	0.0100	0.0342	0.0400	-14.6	50.0
Iodomethane	Ave	0.5346	0.5615		0.0210	0.0200	5.0	20.0
Carbon disulfide	Ave	1.114	0.9752	0.1000	0.0175	0.0200	-12.5	20.0
3-Chloro-1-propene	Ave	0.3444	0.4429		0.0257	0.0200	28.6*	20.0
Methyl acetate	Ave	0.2143	0.1748	0.1000	0.0815	0.100	-18.5	20.0
Methylene Chloride	Lin1		0.4675	0.1000	0.0178	0.0200	-11.0	50.0
2-Methyl-2-propanol	Ave	0.0293	0.0191		0.131	0.200	-34.6	50.0
Acrylonitrile	Ave	0.1241	0.1030		0.166	0.200	-17.0	20.0
Methyl tert-butyl ether	Ave	0.7997	0.7860	0.1000	0.0197	0.0200	-1.7	20.0
trans-1,2-Dichloroethene	Ave	0.4451	0.4359	0.1000	0.0196	0.0200	-2.1	20.0
Hexane	Ave	0.3578	0.3595		0.0201	0.0200	0.5	20.0
1,1-Dichloroethane	Ave	0.5536	0.5502	0.2000	0.0199	0.0200	-0.6	20.0
Vinyl acetate	Ave	0.4387	0.4623		0.0211	0.0200	5.4	50.0
2,2-Dichloropropane	Ave	0.2268	0.2368		0.0209	0.0200	4.4	20.0
cis-1,2-Dichloroethene	Ave	0.4794	0.4818	0.1000	0.0201	0.0200	0.5	20.0
2-Butanone (MEK)	Ave	0.1484	0.1324	0.0100	0.0357	0.0400	-10.7	20.0
Chlorobromomethane	Ave	0.2696	0.2499		0.0185	0.0200	-7.3	20.0
Tetrahydrofuran	Ave	0.0902	0.0684		0.0303	0.0400	-24.2*	20.0
Chloroform	Ave	0.5171	0.5338	0.2000	0.0206	0.0200	3.2	20.0
1,1,1-Trichloroethane	Ave	0.3439	0.3725	0.1000	0.0217	0.0200	8.3	20.0
Cyclohexane	Ave	0.4899	0.4726	0.1000	0.0193	0.0200	-3.5	20.0
1,1-Dichloropropene	Ave	0.4332	0.4331		0.0200	0.0200	-0.0	20.0
Carbon tetrachloride	Ave	0.3017	0.3318	0.1000	0.0220	0.0200	10.0	20.0
Isobutyl alcohol	Lin1		0.0058		0.359	0.500	-28.2*	20.0
Benzene	Ave	1.387	1.373	0.5000	0.0198	0.0200	-1.0	20.0
1,2-Dichloroethane	Ave	0.3908	0.3994	0.1000	0.0204	0.0200	2.2	20.0
n-Heptane	Lin1		0.1952		0.0190	0.0200	-5.2	20.0
Trichloroethene	Ave	0.3490	0.3332	0.1500	0.0191	0.0200	-4.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-276598/3 Calibration Date: 04/27/2017 17:12

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256785.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4444	0.4456	0.1000	0.0201	0.0200	0.3	20.0
1,2-Dichloropropane	Ave	0.3324	0.3369	0.1000	0.0203	0.0200	1.4	20.0
Dibromomethane	Ave	0.2199	0.2018		0.0184	0.0200	-8.2	20.0
1,4-Dioxane	Lin1		0.0031		0.330	0.400	-17.4	50.0
Dichlorobromomethane	Ave	0.3645	0.3811	0.1500	0.0209	0.0200	4.5	20.0
2-Chloroethyl vinyl ether	Ave	0.1221	0.1138		0.0373	0.0400	-6.8	20.0
cis-1,3-Dichloropropene	Ave	0.4794	0.5233	0.1500	0.0218	0.0200	9.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2708	0.2400	0.0500	0.0355	0.0400	-11.4	20.0
Toluene	Ave	1.925	1.940	0.4000	0.0202	0.0200	0.8	20.0
trans-1,3-Dichloropropene	Lin1		0.5925	0.1000	0.0197	0.0200	-1.7	20.0
Ethyl methacrylate	Ave	0.5175	0.5174		0.0200	0.0200	-0.0	20.0
1,1,2-Trichloroethane	Ave	0.3828	0.3799	0.1000	0.0198	0.0200	-0.8	20.0
Tetrachloroethene	Ave	0.4272	0.4428	0.1500	0.0207	0.0200	3.6	20.0
1,3-Dichloropropane	Ave	0.7118	0.7300		0.0205	0.0200	2.6	20.0
2-Hexanone	Ave	0.2515	0.2657	0.0500	0.0422	0.0400	5.6	20.0
Chlorodibromomethane	Ave	0.3322	0.3666		0.0221	0.0200	10.4	20.0
Ethylene Dibromide	Ave	0.3707	0.3680		0.0199	0.0200	-0.7	20.0
Chlorobenzene	Ave	1.256	1.301	0.3000	0.0207	0.0200	3.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3601	0.3969		0.0220	0.0200	10.2	20.0
Ethylbenzene	Ave	0.6332	0.6748		0.0213	0.0200	6.6	20.0
m-Xylene & p-Xylene	Ave	0.7970	0.8414		0.0211	0.0200	5.6	20.0
o-Xylene	Ave	0.8023	0.8335		0.0208	0.0200	3.9	20.0
Styrene	Ave	1.382	1.484	0.3000	0.0215	0.0200	7.4	20.0
Bromoform	Lin1		0.2150	0.1000	0.0181	0.0200	-9.5	20.0
Isopropylbenzene	Ave	1.832	2.017	0.1000	0.0220	0.0200	10.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9427	0.9342	0.3000	0.0198	0.0200	-0.9	20.0
Bromobenzene	Ave	0.9406	0.9650		0.0205	0.0200	2.6	20.0
1,2,3-Trichloropropane	Ave	0.3053	0.3094		0.0203	0.0200	1.3	20.0
trans-1,4-Dichloro-2-butene	Qua		0.1566		0.0190	0.0200	-5.0	20.0
N-Propylbenzene	Ave	0.8934	0.9531		0.0213	0.0200	6.7	20.0
2-Chlorotoluene	Ave	0.8085	0.8586		0.0212	0.0200	6.2	20.0
1,3,5-Trimethylbenzene	Ave	2.730	2.924		0.0214	0.0200	7.1	20.0
4-Chlorotoluene	Ave	0.8925	0.9358		0.0210	0.0200	4.9	20.0
tert-Butylbenzene	Ave	2.291	2.434		0.0212	0.0200	6.2	20.0
1,2,4-Trimethylbenzene	Ave	2.938	3.155		0.0215	0.0200	7.4	20.0
sec-Butylbenzene	Ave	3.240	3.430		0.0212	0.0200	5.9	20.0
1,3-Dichlorobenzene	Ave	1.713	1.808	0.6000	0.0211	0.0200	5.5	20.0
4-Isopropyltoluene	Ave	2.833	3.022		0.0213	0.0200	6.6	20.0
1,4-Dichlorobenzene	Ave	1.824	1.836	0.5000	0.0201	0.0200	0.6	20.0
n-Butylbenzene	Ave	2.283	2.450		0.0215	0.0200	7.3	20.0
1,2-Dichlorobenzene	Ave	1.682	1.708	0.4000	0.0203	0.0200	1.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-276598/3 Calibration Date: 04/27/2017 17:12

Instrument ID: A3UX12 Calib Start Date: 03/30/2017 14:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2017 16:17

Lab File ID: U1256785.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1717	0.1647	0.0500	0.0192	0.0200	-4.0	50.0
1,2,4-Trichlorobenzene	Ave	0.9845	0.9431	0.2000	0.0192	0.0200	-4.2	50.0
Hexachlorobutadiene	Ave	0.4000	0.3744		0.0187	0.0200	-6.4	20.0
Naphthalene	Ave	2.520	2.496		0.0198	0.0200	-0.9	50.0
1,2,3-Trichlorobenzene	Ave	0.8562	0.8336		0.0195	0.0200	-2.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2825	0.2637		0.0154	0.0165	-6.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3288	0.3301		0.0166	0.0165	0.4	20.0
Toluene-d8 (Surr)	Ave	1.575	1.550		0.0163	0.0165	-1.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5951	0.6036		0.0168	0.0165	1.4	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab File ID: BFB5200.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX16 BFB Injection Time: 13:36

Analysis Batch No.: 272263

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	76.3	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272263/6	UXM1388.D	03/29/2017	14:02
	STD8260 240-272263/7	UXM1389.D	03/29/2017	14:25
	STD8260 240-272263/8	UXM1390.D	03/29/2017	14:48
	ICIS 240-272263/9	UXM1391.D	03/29/2017	15:11
	STD8260 240-272263/10	UXM1392.D	03/29/2017	15:34
	STD8260 240-272263/11	UXM1393.D	03/29/2017	15:56
	ICV 240-272263/20	UXM1402.D	03/29/2017	19:27

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2774 0.3284	0.2911	0.3262	0.3261	0.3503	Ave		0.3166			0.1000	8.5		20.0			
Chloromethane	0.4243 0.3631	0.3916	0.3790	0.3773	0.3916	Ave		0.3878			0.1000	5.4		20.0			
Vinyl chloride	0.4087 0.3605	0.3465	0.3612	0.3711	0.3829	Ave		0.3718			0.1000	5.8		20.0			
Butadiene	0.2591 0.3141	0.2556	0.2954	0.3159	0.3217	Ave		0.2937				10.0		20.0			
Bromomethane	0.2462 0.2319	0.2336	0.2325	0.2219	0.2327	Ave		0.2332			0.0500	3.3		20.0			
Chloroethane	0.2194 0.2239	0.1843	0.2273	0.2249	0.2316	Ave		0.2186			0.0500	7.9		20.0			
Dichlorofluoromethane	0.6271 0.5827	0.5458	0.5988	0.5826	0.6147	Ave		0.5919				4.8		20.0			
Trichlorofluoromethane	0.3569 0.4333	0.3855	0.4259	0.4347	0.4592	Ave		0.4159			0.1000	9.0		20.0			
Ethyl ether	0.2759 0.2366	0.2379	0.2543	0.2398	0.2563	Ave		0.2501				6.1		20.0			
Acrolein	0.0384 0.0319	0.0312	0.0336	0.0327	0.0346	Ave		0.0337				7.6		20.0			
1,1-Dichloroethene	0.3099 0.2842	0.2647	0.2795	0.2888	0.2999	Ave		0.2878			0.1000	5.5		20.0			
Acetone	+++++ 0.0788	0.1310	0.0907	0.0866	0.0925	Lin1	0.1043	0.0835			0.0100				0.9940		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0921 0.1845	0.1404	0.1678	0.1754	0.1718	Lin1	-0.045	0.1793			0.0500				0.9990		0.9900
Iodomethane	0.4817 0.4537	0.4441	0.4516	0.4592	0.4825	Ave		0.4621				3.5		20.0			
Carbon disulfide	1.0384 0.9437	0.8950	0.9260	0.9397	0.9657	Ave		0.9514			0.1000	5.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2088 0.1945	0.1889	0.2169	0.1917	0.2068	Ave		0.2013				5.5		20.0			
Methyl acetate	0.1785 0.1542	0.1585	0.1607	0.1601	0.1623	Ave		0.1624			0.1000	5.1		20.0			
Methylene Chloride	+++++ 0.3133	0.8626	0.3413	0.3195	0.3388	Lin1	0.5333	0.3080			0.1000				0.9980		0.9900
2-Methyl-2-propanol	0.0315 0.0189	0.0213	0.0195	0.0198	0.0198	Lin1	0.0481	0.0192							0.9990		0.9900
Acrylonitrile	0.0953 0.0828	0.0857	0.0840	0.0837	0.0870	Ave		0.0864				5.4		20.0			
trans-1,2-Dichloroethene	0.3210 0.3162	0.2997	0.3159	0.3101	0.3333	Ave		0.3161			0.1000	3.5		20.0			
Methyl tert-butyl ether	0.8745 0.8162	0.7894	0.8187	0.8126	0.8733	Ave		0.8308			0.1000	4.2		20.0			
Hexane	0.2939 0.2948	0.2970	0.2722	0.2810	0.2994	Ave		0.2897				3.7		20.0			
1,1-Dichloroethane	0.5521 0.5175	0.4733	0.5210	0.5179	0.5529	Ave		0.5224			0.2000	5.6		20.0			
Vinyl acetate	0.4516 0.4009	0.3877	0.4037	0.3918	0.4198	Ave		0.4093				5.8		20.0			
2,2-Dichloropropane	0.3794 0.3532	0.3453	0.3576	0.3513	0.3722	Ave		0.3598				3.7		20.0			
2-Butanone (MEK)	0.1322 0.0875	0.0867	0.0946	0.0931	0.0992	Ave		0.0989			0.0100	17.1		20.0			
cis-1,2-Dichloroethene	0.3587 0.3537	0.3367	0.3467	0.3429	0.3721	Ave		0.3518			0.1000	3.6		20.0			
Chlorobromomethane	0.1291 0.1502	0.1431	0.1505	0.1467	0.1612	Ave		0.1468				7.2		20.0			
Tetrahydrofuran	+++++ 0.0556	0.0583	0.0569	0.0577	0.0598	Ave		0.0577				2.7		20.0			
Chloroform	0.5471 0.5284	0.5180	0.5158	0.5179	0.5629	Ave		0.5317			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.4142 0.4390	0.4248	0.4405	0.4404	0.4618	Ave		0.4368			0.1000	3.7		20.0			
Cyclohexane	0.4351 0.4326	0.4108	0.4111	0.4328	0.4318	Ave		0.4257			0.1000	2.7		20.0			
1,1-Dichloropropene	0.3936 0.4033	0.3495	0.3997	0.4002	0.4212	Ave		0.3946				6.1		20.0			
Carbon tetrachloride	0.3835 0.3598	0.3382	0.3513	0.3550	0.3753	Ave		0.3605			0.1000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0065 0.0062	0.0053	0.0067	0.0067	0.0067	Ave		0.0063				8.6		20.0			
Benzene	1.3724 1.2227	1.1219	1.2218	1.2050	1.2842	Ave		1.2380			0.5000	6.8		20.0			
1,2-Dichloroethane	0.3910 0.3932	0.3705	0.4014	0.3955	0.4214	Ave		0.3955			0.1000	4.2		20.0			
n-Heptane	+++++ 0.1323	0.7828	0.1743	0.1452	0.1373	Lin1	0.6515	0.1191							0.9980		0.9900
Trichloroethene	0.3404 0.3089	0.2946	0.3129	0.3013	0.3193	Ave		0.3129			0.1500	5.1		20.0			
Methylcyclohexane	0.3962 0.4020	0.4164	0.3842	0.3811	0.4140	Ave		0.3990			0.1000	3.7		20.0			
1,2-Dichloropropane	0.2659 0.2739	0.2677	0.2805	0.2770	0.2933	Ave		0.2764			0.1000	3.6		20.0			
Dibromomethane	0.1841 0.1580	0.1557	0.1636	0.1609	0.1664	Ave		0.1648				6.2		20.0			
1,4-Dioxane	0.0022 0.0024	0.0021	0.0025	0.0025	0.0025	Ave		0.0024				6.7		20.0			
Dichlorobromomethane	0.3832 0.3821	0.3551	0.3780	0.3743	0.4067	Ave		0.3799			0.1500	4.4		20.0			
2-Chloroethyl vinyl ether	0.1585 0.1357	0.1250	0.1429	0.1377	0.1476	Ave		0.1413				8.0		20.0			
cis-1,3-Dichloropropene	0.4496 0.4653	0.4268	0.4592	0.4537	0.4927	Ave		0.4579			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.2293 0.1854	0.2069	0.2005	0.2004	0.2030	Ave		0.2043			0.0500	7.0		20.0			
Toluene	1.5034 1.5997	1.3726	1.5269	1.5051	1.6319	Ave		1.5233			0.4000	6.0		20.0			
trans-1,3-Dichloropropene	0.4548 0.4818	0.4333	0.4674	0.4569	0.4997	Ave		0.4656			0.1000	5.0		20.0			
Ethyl methacrylate	0.3803 0.3740	0.3185	0.3922	0.3811	0.3898	Ave		0.3726				7.3		20.0			
1,1,2-Trichloroethane	0.2635 0.2687	0.2498	0.2723	0.2568	0.2811	Ave		0.2654			0.1000	4.2		20.0			
1,3-Dichloropropane	0.5065 0.4731	0.4472	0.4815	0.4621	0.4985	Ave		0.4781				4.6		20.0			
Tetrachloroethene	0.2542 0.2756	0.2173	0.2564	0.2573	0.2785	Ave		0.2566			0.1500	8.5		20.0			
2-Hexanone	0.2078 0.1535	0.1472	0.1718	0.1662	0.1729	Ave		0.1699			0.0500	12.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2932 0.3159	0.2671	0.2991	0.3025	0.3261	Ave		0.3007				6.8		20.0			
Ethylene Dibromide	0.2219 0.2665	0.2582	0.2665	0.2598	0.2776	Ave		0.2584				7.4		20.0			
Chlorobenzene	1.0529 0.9678	0.8811	0.9699	0.9300	1.0081	Ave		0.9683			0.3000	6.2		20.0			
1,1,1,2-Tetrachloroethane	0.3063 0.3556	0.3094	0.3415	0.3391	0.3631	Ave		0.3358				7.0		20.0			
Ethylbenzene	0.4877 0.5488	0.4527	0.5317	0.5213	0.5696	Ave		0.5186				8.2		20.0			
m-Xylene & p-Xylene	0.6411 0.6835	0.5972	0.6660	0.6424	0.7068	Ave		0.6562				5.8		20.0			
o-Xylene	0.6365 0.7126	0.5894	0.6714	0.6629	0.7222	Ave		0.6658				7.4		20.0			
Styrene	1.1100 1.1992	0.9655	1.1476	1.1234	1.2429	Ave		1.1314			0.3000	8.4		20.0			
Bromoform	+++++ 0.1965	0.1499	0.1847	0.1835	0.2004	Ave		0.1830			0.1000	10.9		20.0			
Isopropylbenzene	1.5431 1.7556	1.4920	1.6914	1.6192	1.7882	Ave		1.6482			0.1000	7.1		20.0			
1,1,2,2-Tetrachloroethane	0.6083 0.5668	0.5706	0.5874	0.5668	0.5898	Ave		0.5816			0.3000	2.8		20.0			
Bromobenzene	0.7214 0.6938	0.6411	0.6888	0.6748	0.7324	Ave		0.6921				4.7		20.0			
1,2,3-Trichloropropane	0.1987 0.1777	0.1412	0.1899	0.1788	0.1886	Ave		0.1791				11.2		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1649	0.1477	0.1661	0.1620	0.1691	Ave		0.1620				5.2		20.0			
N-Propylbenzene	0.6918 0.7372	0.6194	0.7268	0.7170	0.7728	Ave		0.7108				7.3		20.0			
2-Chlorotoluene	0.5891 0.6524	0.6072	0.6547	0.6350	0.6848	Ave		0.6372				5.4		20.0			
1,3,5-Trimethylbenzene	2.0957 2.3598	2.0166	2.3008	2.2541	2.4702	Ave		2.2495				7.5		20.0			
4-Chlorotoluene	0.6633 0.6930	0.6450	0.6920	0.6739	0.7178	Ave		0.6808				3.8		20.0			
tert-Butylbenzene	1.7635 1.9140	1.6247	1.8363	1.8095	2.0418	Ave		1.8316				7.7		20.0			
1,2,4-Trimethylbenzene	2.3247 2.5091	2.1504	2.4221	2.3653	2.6095	Ave		2.3968				6.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.5150 2.6729	2.2201	2.4881	2.5159	2.6914	Ave		2.5172				6.7		20.0			
1,3-Dichlorobenzene	1.4670 1.3679	1.2338	1.3477	1.3117	1.4211	Ave		1.3582			0.6000	6.0		20.0			
4-Isopropyltoluene	2.1129 2.3459	1.8695	2.2357	2.2077	2.3896	Ave		2.1935				8.5		20.0			
1,4-Dichlorobenzene	1.4955 1.4123	1.3794	1.3886	1.3663	1.4845	Ave		1.4211			0.5000	3.9		20.0			
n-Butylbenzene	1.7339 1.9743	1.5905	1.8048	1.8379	1.9843	Ave		1.8210				8.2		20.0			
1,2-Dichlorobenzene	1.2562 1.3098	1.1778	1.2902	1.2925	1.3695	Ave		1.2827			0.4000	4.9		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1052	0.0364	0.0995	0.1035	0.1060	Lin1	-0.070	0.1069			0.0500				1.0000		0.9900
1,2,4-Trichlorobenzene	0.6877 0.6736	0.5503	0.6622	0.6682	0.6940	Ave		0.6560			0.2000	8.1		20.0			
Hexachlorobutadiene	0.2877 0.2599	0.2632	0.2675	0.2544	0.2579	Ave		0.2651				4.5		20.0			
Naphthalene	1.6027 1.5994	1.4701	1.5619	1.6108	1.6507	Ave		1.5826				3.9		20.0			
1,2,3-Trichlorobenzene	0.6150 0.5347	0.5152	0.5434	0.5219	0.5373	Ave		0.5446				6.6		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2685	0.2395	0.2729	0.2637	0.2857	Ave		0.2661				6.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3228	0.3015	0.3260	0.3254	0.3428	Ave		0.3237				4.5		20.0			
Toluene-d8 (Surr)	+++++ 1.3214	1.1456	1.2974	1.2474	1.3716	Ave		1.2767				6.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5071	0.4952	0.5030	0.4775	0.5277	Ave		0.5021				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5179 847120	11017	128360	253224	550892	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	7922 936755	14820	149125	293002	615885	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7630 930046	13114	142124	288166	602218	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	4838 810331	9674	116239	245302	505876	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4597 598347	8841	91460	172325	365990	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4096 577536	6974	89417	174639	364276	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11708 1503160	20654	235601	452370	966660	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	6664 1117927	14588	167580	337517	722089	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5151 610299	9003	100039	186234	403120	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	3583 411959	5902	66140	127012	271894	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	5786 733110	10015	109963	224216	471677	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 406505	9915	71393	134509	291061	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin1	1719 475836	5314	66002	136175	270113	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	8993 1170460	16807	177685	356561	758795	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19388 2434531	33870	364318	729668	1518632	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	3898 501808	7147	85345	148857	325226	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	16660 1988424	29982	316228	621600	1276312	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 808307	32644	134304	248096	532778	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Lin1	5873 488818	8043	76560	153795	312048	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	17798 2135402	32438	330543	649564	1367386	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	5994 815699	11343	124281	240825	524179	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	16327 2105680	29872	322103	631005	1373337	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	5487 760574	11238	107113	218153	470888	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10307 1334943	17911	204999	402129	869459	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	8432 1034200	14672	158843	304201	660178	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7083 911074	13066	140701	272751	585273	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	4935 451516	6565	74473	144524	312018	1.00 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	6697 912453	12740	136411	266288	585132	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	2410 387412	5415	59207	113893	253511	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 286982	4411	44754	89633	188065	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	10215 1363021	19603	202957	402177	885179	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	7733 1132620	16074	173321	341980	726229	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	8124 1115970	15546	161743	336024	679066	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7348 1040465	13224	157266	310724	662295	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7160 928150	12799	138203	275660	590240	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3024 400360	5010	65708	129156	263648	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	25623 3154247	42454	480702	935627	2019515	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	7301 1014431	14020	157922	307103	662756	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 341428	29623	68593	112761	215843	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6355 796803	11148	123108	233955	502151	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7397 1037120	15758	151173	295935	651030	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4964 706657	10130	110357	215114	461237	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3437 407486	5893	64377	124908	261655	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	834 123335	1605	19655	38426	78547	10.0 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7155 985845	13436	148706	290638	639618	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5918 700370	9463	112468	213909	464280	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8395 1200301	16151	180675	352263	774818	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8562 956773	15661	157774	311153	638574	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	24459 3381801	43972	506034	999549	2175973	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7400 1018460	13881	154908	303427	666263	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6188 790543	10204	129971	253071	519797	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4287 568086	8004	90248	170548	374844	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8240 1000041	14327	159567	306909	664700	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	4136 582643	6962	84984	170857	371340	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	6760 648844	9432	113881	220698	461028	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	4770 667908	8556	99130	200923	434766	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	3610 563465	8273	88330	172552	370102	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	17130 2045855	28228	321425	617603	1344142	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	4983 751801	9911	113169	225209	484147	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	7935 1160183	14503	176218	346211	759461	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10431 1444911	19132	220713	426620	942436	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10356 1506460	18882	222497	440251	962956	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	18059 2535054	30930	380327	746075	1657306	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 415424	4801	61205	121879	267228	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25106 3711391	47797	560540	1075361	2384274	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	5713 737968	10448	115737	225373	475002	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	6775 903324	11739	135717	268325	589896	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1866 231422	2585	37411	71109	151875	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 214760	2705	32721	64414	136212	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6497 959812	11342	143202	285089	622432	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	5533 849427	11118	129000	252467	551504	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	19682 3072471	36925	453357	896247	1989434	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	6229 902216	11811	136344	267964	578143	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	16562 2492024	29749	361820	719500	1644461	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	21832 3266809	39375	477256	940469	2101646	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	23620 3480080	40652	490263	1000351	2167632	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13777 1780923	22592	265561	521548	1144570	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	19843 3054252	34232	440532	877803	1924581	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	14045 1838844	25258	273613	543264	1195580	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	16284 2570482	29124	355628	730792	1598143	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	11798 1705302	21566	254218	513920	1102993	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 136942	667	19605	41171	85385	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	6459 876963	10076	130479	265671	558939	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	2702 338447	4820	52710	101162	207737	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	15052 2082436	26918	307761	640457	1329426	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	5776 696197	9433	107067	207510	432770	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 692751	9065	107373	204745	449310	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 832640	11411	128256	252642	539067	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2793316	36701	429977	828458	1828800	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1072081	15864	166696	317105	703668	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2754	0.1000	0.0174	0.0200	-13.0	20.0
Chloromethane	Ave	0.3878	0.3485	0.1000	0.0180	0.0200	-10.1	20.0
Vinyl chloride	Ave	0.3718	0.3559	0.1000	0.0191	0.0200	-4.3	20.0
Butadiene	Ave	0.2937	0.2643		0.0180	0.0200	-10.0	30.0
Bromomethane	Ave	0.2332	0.2350	0.0500	0.0202	0.0200	0.8	20.0
Chloroethane	Ave	0.2186	0.2331	0.0500	0.0213	0.0200	6.7	20.0
Dichlorofluoromethane	Ave	0.5919	0.5918		0.0200	0.0200	-0.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.4116	0.1000	0.0198	0.0200	-1.1	20.0
Ethyl ether	Ave	0.2501	0.2556		0.0204	0.0200	2.2	20.0
Acrolein	Ave	0.0337	0.0396		0.117	0.100	17.5	50.0
1,1-Dichloroethene	Ave	0.2878	0.2795	0.1000	0.0194	0.0200	-2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1533	0.0500	0.0174	0.0200	-13.2	20.0
Acetone	Lin1		0.0696	0.0100	0.0321	0.0400	-19.8	50.0
Iodomethane	Ave	0.4621	0.4372		0.0189	0.0200	-5.4	20.0
Carbon disulfide	Ave	0.9514	0.8428	0.1000	0.0177	0.0200	-11.4	20.0
3-Chloro-1-propene	Ave	0.2013	0.2425		0.0241	0.0200	20.5*	20.0
Methyl acetate	Ave	0.1624	0.1554	0.1000	0.0957	0.100	-4.3	20.0
Methylene Chloride	Lin1		0.3421	0.1000	0.0205	0.0200	2.4	50.0
2-Methyl-2-propanol	Lin1		0.0196		0.202	0.200	0.8	50.0
Acrylonitrile	Ave	0.0864	0.0848		0.196	0.200	-1.9	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.3170	0.1000	0.0201	0.0200	0.3	20.0
Methyl tert-butyl ether	Ave	0.8308	0.8348	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2897	0.2684		0.0185	0.0200	-7.4	20.0
1,1-Dichloroethane	Ave	0.5224	0.5289	0.2000	0.0202	0.0200	1.2	20.0
Vinyl acetate	Ave	0.4093	0.4128		0.0202	0.0200	0.9	50.0
2,2-Dichloropropane	Ave	0.3598	0.3379		0.0188	0.0200	-6.1	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3547	0.1000	0.0202	0.0200	0.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0855	0.0100	0.0346	0.0400	-13.6	20.0
Chlorobromomethane	Ave	0.1468	0.1543		0.0210	0.0200	5.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0579		0.0401	0.0400	0.3	20.0
Chloroform	Ave	0.5317	0.5428	0.2000	0.0204	0.0200	2.1	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4432	0.1000	0.0203	0.0200	1.5	20.0
Cyclohexane	Ave	0.4257	0.3980	0.1000	0.0187	0.0200	-6.5	20.0
1,1-Dichloropropene	Ave	0.3946	0.4168		0.0211	0.0200	5.6	20.0
Carbon tetrachloride	Ave	0.3605	0.3553	0.1000	0.0197	0.0200	-1.4	20.0
Isobutyl alcohol	Ave	0.0063	0.0067		0.531	0.500	6.3	20.0
1,2-Dichloroethane	Ave	0.3955	0.4072	0.1000	0.0206	0.0200	2.9	20.0
Benzene	Ave	1.238	1.256	0.5000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.1419		0.0184	0.0200	-8.2	20.0
Trichloroethene	Ave	0.3129	0.3131	0.1500	0.0200	0.0200	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3824	0.1000	0.0192	0.0200	-4.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2828	0.1000	0.0205	0.0200	2.3	20.0
Dibromomethane	Ave	0.1648	0.1637		0.0199	0.0200	-0.6	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.396	0.400	-1.0	50.0
Dichlorobromomethane	Ave	0.3799	0.3911	0.1500	0.0206	0.0200	3.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1427		0.0202	0.0200	1.0	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4754	0.1500	0.0208	0.0200	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2065	0.0500	0.0404	0.0400	1.1	20.0
Toluene	Ave	1.523	1.556	0.4000	0.0204	0.0200	2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4662	0.1000	0.0200	0.0200	0.1	20.0
Ethyl methacrylate	Ave	0.3726	0.3982		0.0214	0.0200	6.8	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2798	0.1000	0.0211	0.0200	5.4	20.0
1,3-Dichloropropane	Ave	0.4781	0.4821		0.0202	0.0200	0.8	20.0
Tetrachloroethene	Ave	0.2566	0.2648	0.1500	0.0206	0.0200	3.2	20.0
2-Hexanone	Ave	0.1699	0.1662	0.0500	0.0391	0.0400	-2.2	20.0
Chlorodibromomethane	Ave	0.3007	0.3087		0.0205	0.0200	2.7	20.0
Ethylene Dibromide	Ave	0.2584	0.2744		0.0212	0.0200	6.2	20.0
Chlorobenzene	Ave	0.9683	0.9766	0.3000	0.0202	0.0200	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3543		0.0211	0.0200	5.5	20.0
Ethylbenzene	Ave	0.5186	0.5447		0.0210	0.0200	5.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6832		0.0208	0.0200	4.1	20.0
o-Xylene	Ave	0.6658	0.6969		0.0209	0.0200	4.7	20.0
Styrene	Ave	1.131	1.212	0.3000	0.0214	0.0200	7.1	20.0
Bromoform	Ave	0.1830	0.1912	0.1000	0.0209	0.0200	4.5	20.0
Isopropylbenzene	Ave	1.648	1.723	0.1000	0.0209	0.0200	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6059	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.6921	0.7158		0.0207	0.0200	3.4	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1976		0.0221	0.0200	10.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1763		0.0218	0.0200	8.8	20.0
N-Propylbenzene	Ave	0.7108	0.7354		0.0207	0.0200	3.5	20.0
2-Chlorotoluene	Ave	0.6372	0.6789		0.0213	0.0200	6.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.355		0.0209	0.0200	4.7	20.0
4-Chlorotoluene	Ave	0.6808	0.7194		0.0211	0.0200	5.7	20.0
tert-Butylbenzene	Ave	1.832	1.861		0.0203	0.0200	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.511		0.0210	0.0200	4.8	20.0
sec-Butylbenzene	Ave	2.517	2.551		0.0203	0.0200	1.3	20.0
1,3-Dichlorobenzene	Ave	1.358	1.413	0.6000	0.0208	0.0200	4.0	20.0
4-Isopropyltoluene	Ave	2.194	2.236		0.0204	0.0200	1.9	20.0
1,4-Dichlorobenzene	Ave	1.421	1.444	0.5000	0.0203	0.0200	1.6	20.0
n-Butylbenzene	Ave	1.821	1.891		0.0208	0.0200	3.8	20.0
1,2-Dichlorobenzene	Ave	1.283	1.343	0.4000	0.0209	0.0200	4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1071	0.0500	0.0207	0.0200	3.4	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6678	0.2000	0.0204	0.0200	1.8	50.0
Hexachlorobutadiene	Ave	0.2651	0.2451		0.0185	0.0200	-7.6	20.0
Naphthalene	Ave	1.583	1.643		0.0208	0.0200	3.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5563		0.0204	0.0200	2.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2578		0.0194	0.0200	-3.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3176		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.277	1.236		0.0194	0.0200	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4880		0.0194	0.0200	-2.8	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab File ID: BFB5221.D BFB Injection Date: 04/24/2017

Instrument ID: A3UX16 BFB Injection Time: 16:15

Analysis Batch No.: 275993

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	50.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.8	(1.0) 1
174	50.0 - 120.00 % of mass 95	78.1	
175	5.0 - 9.0 % of mass 174	5.5	(7.1) 1
176	95.0 - 101.0 % of mass 174	78.2	(100.2) 1
177	5.0 - 9.0 % of mass 176	5.8	(7.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-275993/3	UXM1865.D	04/24/2017	16:46
	LCS 240-275993/4	UXM1866.D	04/24/2017	17:10
	CCV 240-275993/5	UXM1867.D	04/24/2017	17:33
	MB 240-275993/7	UXM1869.D	04/24/2017	18:20
TB-041817	240-78295-1	UXM1882.D	04/24/2017	23:21
MRC-MW14B-041817	240-78295-2	UXM1883.D	04/24/2017	23:43
MRC-MW100A-041817	240-78295-3	UXM1884.D	04/25/2017	00:44
MRC-MW100B-041817	240-78295-4	UXM1885.D	04/25/2017	01:07
MRC-MW72B-041817	240-78295-5	UXM1886.D	04/25/2017	01:30
	240-78241-E-9 MS	UXM1889.D	04/25/2017	02:39
	240-78241-H-9 MSD	UXM1890.D	04/25/2017	03:02

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-275993/3 Calibration Date: 04/24/2017 16:46

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1865.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.4422	0.1000	0.0279	0.0200	39.7*	20.0
Chloromethane	Ave	0.3878	0.4023	0.1000	0.0207	0.0200	3.7	20.0
Vinyl chloride	Ave	0.3718	0.4421	0.1000	0.0238	0.0200	18.9	20.0
Butadiene	Ave	0.2937	0.4320		0.0294	0.0200	47.1*	20.0
Bromomethane	Ave	0.2332	0.2437	0.0500	0.0209	0.0200	4.5	20.0
Chloroethane	Ave	0.2186	0.2601	0.0500	0.0238	0.0200	19.0	20.0
Dichlorofluoromethane	Ave	0.5919	0.5749		0.0194	0.0200	-2.9	20.0
Trichlorofluoromethane	Ave	0.4159	0.5014	0.1000	0.0241	0.0200	20.5*	20.0
Ethyl ether	Ave	0.2501	0.2476		0.0198	0.0200	-1.0	20.0
Acrolein	Ave	0.0337	0.0328		0.0972	0.100	-2.8	50.0
1,1-Dichloroethene	Ave	0.2878	0.2881	0.1000	0.0200	0.0200	0.0	20.0
Acetone	Lin1		0.0968	0.0100	0.0451	0.0400	12.7	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.2225	0.0500	0.0251	0.0200	25.4*	20.0
Iodomethane	Ave	0.4621	0.4535		0.0196	0.0200	-1.9	20.0
Carbon disulfide	Ave	0.9514	0.9430	0.1000	0.0198	0.0200	-0.9	20.0
3-Chloro-1-propene	Ave	0.2013	0.1928		0.0192	0.0200	-4.2	20.0
Methyl acetate	Ave	0.1624	0.1601	0.1000	0.0986	0.100	-1.4	20.0
Methylene Chloride	Lin1		0.3232	0.1000	0.0193	0.0200	-3.7	50.0
2-Methyl-2-propanol	Lin1		0.0195		0.201	0.200	0.3	50.0
Acrylonitrile	Ave	0.0864	0.0847		0.196	0.200	-2.0	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.3130	0.1000	0.0198	0.0200	-1.0	20.0
Methyl tert-butyl ether	Ave	0.8308	0.7974	0.1000	0.0192	0.0200	-4.0	20.0
Hexane	Ave	0.2897	0.3445		0.0238	0.0200	18.9	20.0
1,1-Dichloroethane	Ave	0.5224	0.5346	0.2000	0.0205	0.0200	2.3	20.0
Vinyl acetate	Ave	0.4093	0.4013		0.0196	0.0200	-1.9	50.0
2,2-Dichloropropane	Ave	0.3598	0.3932		0.0219	0.0200	9.3	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3377	0.1000	0.0192	0.0200	-4.0	20.0
2-Butanone (MEK)	Ave	0.0989	0.0986	0.0100	0.0399	0.0400	-0.3	20.0
Chlorobromomethane	Ave	0.1468	0.1484		0.0202	0.0200	1.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0585		0.0406	0.0400	1.4	20.0
Chloroform	Ave	0.5317	0.5232	0.2000	0.0197	0.0200	-1.6	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4506	0.1000	0.0206	0.0200	3.2	20.0
Cyclohexane	Ave	0.4257	0.5071	0.1000	0.0238	0.0200	19.1	20.0
1,1-Dichloropropene	Ave	0.3946	0.4145		0.0210	0.0200	5.1	20.0
Carbon tetrachloride	Ave	0.3605	0.3657	0.1000	0.0203	0.0200	1.4	20.0
Isobutyl alcohol	Ave	0.0063	0.0063		0.495	0.500	-1.0	20.0
1,2-Dichloroethane	Ave	0.3955	0.3774	0.1000	0.0191	0.0200	-4.6	20.0
Benzene	Ave	1.238	1.192	0.5000	0.0193	0.0200	-3.7	20.0
n-Heptane	Lin1		0.1765		0.0242	0.0200	20.8*	20.0
Trichloroethene	Ave	0.3129	0.2896	0.1500	0.0185	0.0200	-7.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-275993/3 Calibration Date: 04/24/2017 16:46

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1865.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.4539	0.1000	0.0228	0.0200	13.8	20.0
1,2-Dichloropropane	Ave	0.2764	0.2761	0.1000	0.0200	0.0200	-0.1	20.0
Dibromomethane	Ave	0.1648	0.1503		0.0182	0.0200	-8.8	20.0
1,4-Dioxane	Ave	0.0024	0.0022		0.376	0.400	-6.0	50.0
Dichlorobromomethane	Ave	0.3799	0.3484	0.1500	0.0183	0.0200	-8.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1313		0.0372	0.0400	-7.1	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4348	0.1500	0.0190	0.0200	-5.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.1842	0.0500	0.0361	0.0400	-9.8	20.0
Toluene	Ave	1.523	1.508	0.4000	0.0198	0.0200	-1.0	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4526	0.1000	0.0194	0.0200	-2.8	20.0
Ethyl methacrylate	Ave	0.3726	0.3681		0.0198	0.0200	-1.2	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2575	0.1000	0.0194	0.0200	-3.0	20.0
1,3-Dichloropropane	Ave	0.4781	0.4712		0.0197	0.0200	-1.5	20.0
Tetrachloroethene	Ave	0.2566	0.2637	0.1500	0.0206	0.0200	2.8	20.0
2-Hexanone	Ave	0.1699	0.1667	0.0500	0.0392	0.0400	-1.9	20.0
Chlorodibromomethane	Ave	0.3007	0.2864		0.0190	0.0200	-4.8	20.0
Ethylene Dibromide	Ave	0.2584	0.2530		0.0196	0.0200	-2.1	20.0
Chlorobenzene	Ave	0.9683	0.9547	0.3000	0.0197	0.0200	-1.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3300		0.0197	0.0200	-1.7	20.0
Ethylbenzene	Ave	0.5186	0.5310		0.0205	0.0200	2.4	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6427		0.0196	0.0200	-2.0	20.0
o-Xylene	Ave	0.6658	0.6679		0.0201	0.0200	0.3	20.0
Styrene	Ave	1.131	1.105	0.3000	0.0195	0.0200	-2.3	20.0
Bromoform	Ave	0.1830	0.1635	0.1000	0.0179	0.0200	-10.6	20.0
Isopropylbenzene	Ave	1.648	1.650	0.1000	0.0200	0.0200	0.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.5581	0.3000	0.0192	0.0200	-4.0	20.0
Bromobenzene	Ave	0.6921	0.6508		0.0188	0.0200	-6.0	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1773		0.0198	0.0200	-1.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1508		0.0186	0.0200	-6.9	20.0
N-Propylbenzene	Ave	0.7108	0.7248		0.0204	0.0200	2.0	20.0
2-Chlorotoluene	Ave	0.6372	0.6315		0.0198	0.0200	-0.9	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.243		0.0199	0.0200	-0.3	20.0
4-Chlorotoluene	Ave	0.6808	0.6745		0.0198	0.0200	-0.9	20.0
tert-Butylbenzene	Ave	1.832	1.899		0.0207	0.0200	3.7	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.375		0.0198	0.0200	-0.9	20.0
sec-Butylbenzene	Ave	2.517	2.522		0.0200	0.0200	0.2	20.0
1,3-Dichlorobenzene	Ave	1.358	1.276	0.6000	0.0188	0.0200	-6.1	20.0
4-Isopropyltoluene	Ave	2.194	2.208		0.0201	0.0200	0.7	20.0
1,4-Dichlorobenzene	Ave	1.421	1.336	0.5000	0.0188	0.0200	-6.0	20.0
n-Butylbenzene	Ave	1.821	1.831		0.0201	0.0200	0.5	20.0
1,2-Dichlorobenzene	Ave	1.283	1.252	0.4000	0.0195	0.0200	-2.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-275993/3 Calibration Date: 04/24/2017 16:46

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1865.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.0979	0.0500	0.0190	0.0200	-5.1	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6071	0.2000	0.0185	0.0200	-7.5	50.0
Hexachlorobutadiene	Ave	0.2651	0.2256		0.0170	0.0200	-14.9	20.0
Naphthalene	Ave	1.583	1.463		0.0185	0.0200	-7.6	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.4808		0.0177	0.0200	-11.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2643		0.0199	0.0200	-0.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3109		0.0192	0.0200	-3.9	20.0
Toluene-d8 (Surr)	Ave	1.277	1.305		0.0204	0.0200	2.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4946		0.0197	0.0200	-1.5	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab File ID: BFB5222.D BFB Injection Date: 04/25/2017

Instrument ID: A3UX16 BFB Injection Time: 07:10

Analysis Batch No.: 276055

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.2	
75	30.0 - 60.0 % of mass 95	49.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.2	
173	Less than 2.0 % of mass 174	1.1	(1.4) 1
174	50.0 - 120.00 % of mass 95	77.7	
175	5.0 - 9.0 % of mass 174	5.6	(7.2) 1
176	95.0 - 101.0 % of mass 174	75.4	(97.0) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-276055/3	UXM1895.D	04/25/2017	07:41
	LCS 240-276055/4	UXM1896.D	04/25/2017	08:04
	CCV 240-276055/5	UXM1897.D	04/25/2017	08:27
	MB 240-276055/7	UXM1899.D	04/25/2017	09:13
TB-041917	240-78379-1	UXM1912.D	04/25/2017	14:27
MRC-MW81B-041917	240-78379-2	UXM1913.D	04/25/2017	14:50
MRC-MW92C-041917	240-78379-3	UXM1914.D	04/25/2017	15:14
MRC-MW48A-041917	240-78379-4	UXM1915.D	04/25/2017	15:36
MRC-DUP12-041917	240-78379-5	UXM1916.D	04/25/2017	15:59
	240-78330-B-5 MS	UXM1917.D	04/25/2017	16:22
	240-78330-B-5 MSD	UXM1918.D	04/25/2017	16:45

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-276055/3 Calibration Date: 04/25/2017 07:41

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1895.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.3143	0.1000	0.0199	0.0200	-0.7	20.0
Chloromethane	Ave	0.3878	0.3378	0.1000	0.0174	0.0200	-12.9	20.0
Vinyl chloride	Ave	0.3718	0.3568	0.1000	0.0192	0.0200	-4.1	20.0
Butadiene	Ave	0.2937	0.3428		0.0233	0.0200	16.7	20.0
Bromomethane	Ave	0.2332	0.1918	0.0500	0.0165	0.0200	-17.7	20.0
Chloroethane	Ave	0.2186	0.2146	0.0500	0.0196	0.0200	-1.8	20.0
Dichlorofluoromethane	Ave	0.5919	0.4834		0.0163	0.0200	-18.3	20.0
Trichlorofluoromethane	Ave	0.4159	0.3692	0.1000	0.0178	0.0200	-11.2	20.0
Ethyl ether	Ave	0.2501	0.2304		0.0184	0.0200	-7.9	20.0
Acrolein	Ave	0.0337	0.0272		0.0807	0.100	-19.3	50.0
1,1-Dichloroethene	Ave	0.2878	0.2588	0.1000	0.0180	0.0200	-10.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1701	0.0500	0.0192	0.0200	-3.9	20.0
Acetone	Lin1		0.0695	0.0100	0.0321	0.0400	-19.8	50.0
Iodomethane	Ave	0.4621	0.3953		0.0171	0.0200	-14.5	20.0
Carbon disulfide	Ave	0.9514	0.7940	0.1000	0.0167	0.0200	-16.5	20.0
3-Chloro-1-propene	Ave	0.2013	0.1557		0.0155	0.0200	-22.6*	20.0
Methyl acetate	Ave	0.1624	0.1512	0.1000	0.0931	0.100	-6.9	20.0
Methylene Chloride	Lin1		0.2818	0.1000	0.0166	0.0200	-17.2	50.0
2-Methyl-2-propanol	Lin1		0.0180		0.185	0.200	-7.6	50.0
Acrylonitrile	Ave	0.0864	0.0778		0.180	0.200	-10.0	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.2720	0.1000	0.0172	0.0200	-13.9	20.0
Methyl tert-butyl ether	Ave	0.8308	0.7375	0.1000	0.0178	0.0200	-11.2	20.0
Hexane	Ave	0.2897	0.2478		0.0171	0.0200	-14.5	20.0
1,1-Dichloroethane	Ave	0.5224	0.4828	0.2000	0.0185	0.0200	-7.6	20.0
Vinyl acetate	Ave	0.4093	0.3868		0.0189	0.0200	-5.5	50.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3143	0.1000	0.0179	0.0200	-10.7	20.0
2,2-Dichloropropane	Ave	0.3598	0.3203		0.0178	0.0200	-11.0	20.0
2-Butanone (MEK)	Ave	0.0989	0.0849	0.0100	0.0344	0.0400	-14.1	20.0
Chlorobromomethane	Ave	0.1468	0.1334		0.0182	0.0200	-9.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0547		0.0380	0.0400	-5.1	20.0
Chloroform	Ave	0.5317	0.4724	0.2000	0.0178	0.0200	-11.2	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.3860	0.1000	0.0177	0.0200	-11.6	20.0
Cyclohexane	Ave	0.4257	0.3843	0.1000	0.0181	0.0200	-9.7	20.0
1,1-Dichloropropene	Ave	0.3946	0.3634		0.0184	0.0200	-7.9	20.0
Carbon tetrachloride	Ave	0.3605	0.3072	0.1000	0.0170	0.0200	-14.8	20.0
Isobutyl alcohol	Ave	0.0063	0.0060		0.476	0.500	-4.8	20.0
1,2-Dichloroethane	Ave	0.3955	0.3623	0.1000	0.0183	0.0200	-8.4	20.0
Benzene	Ave	1.238	1.102	0.5000	0.0178	0.0200	-11.0	20.0
n-Heptane	Lin1		0.1279		0.0160	0.0200	-20.0	20.0
Trichloroethene	Ave	0.3129	0.2665	0.1500	0.0170	0.0200	-14.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-276055/3 Calibration Date: 04/25/2017 07:41

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1895.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3328	0.1000	0.0167	0.0200	-16.6	20.0
1,2-Dichloropropane	Ave	0.2764	0.2557	0.1000	0.0185	0.0200	-7.5	20.0
Dibromomethane	Ave	0.1648	0.1434		0.0174	0.0200	-13.0	20.0
1,4-Dioxane	Ave	0.0024	0.0019		0.322	0.400	-19.4	50.0
Dichlorobromomethane	Ave	0.3799	0.3222	0.1500	0.0170	0.0200	-15.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1247		0.0353	0.0400	-11.7	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.3876	0.1500	0.0169	0.0200	-15.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.1850	0.0500	0.0362	0.0400	-9.4	20.0
Toluene	Ave	1.523	1.603	0.4000	0.0210	0.0200	5.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4662	0.1000	0.0200	0.0200	0.1	20.0
Ethyl methacrylate	Ave	0.3726	0.4209		0.0226	0.0200	13.0	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2829	0.1000	0.0213	0.0200	6.6	20.0
1,3-Dichloropropane	Ave	0.4781	0.5207		0.0218	0.0200	8.9	20.0
Tetrachloroethene	Ave	0.2566	0.2616	0.1500	0.0204	0.0200	1.9	20.0
2-Hexanone	Ave	0.1699	0.1803	0.0500	0.0425	0.0400	6.2	20.0
Chlorodibromomethane	Ave	0.3007	0.3008		0.0200	0.0200	0.0	20.0
Ethylene Dibromide	Ave	0.2584	0.2800		0.0217	0.0200	8.3	20.0
Chlorobenzene	Ave	0.9683	1.018	0.3000	0.0210	0.0200	5.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3416		0.0203	0.0200	1.7	20.0
Ethylbenzene	Ave	0.5186	0.5567		0.0215	0.0200	7.3	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6907		0.0211	0.0200	5.3	20.0
o-Xylene	Ave	0.6658	0.7058		0.0212	0.0200	6.0	20.0
Styrene	Ave	1.131	1.170	0.3000	0.0207	0.0200	3.4	20.0
Bromoform	Ave	0.1830	0.1704	0.1000	0.0186	0.0200	-6.9	20.0
Isopropylbenzene	Ave	1.648	1.708	0.1000	0.0207	0.0200	3.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6450	0.3000	0.0222	0.0200	10.9	20.0
Bromobenzene	Ave	0.6921	0.7141		0.0206	0.0200	3.2	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.2035		0.0227	0.0200	13.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1025		0.0127	0.0200	-36.7*	20.0
N-Propylbenzene	Ave	0.7108	0.7718		0.0217	0.0200	8.6	20.0
2-Chlorotoluene	Ave	0.6372	0.6912		0.0217	0.0200	8.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.415		0.0215	0.0200	7.3	20.0
4-Chlorotoluene	Ave	0.6808	0.7101		0.0209	0.0200	4.3	20.0
tert-Butylbenzene	Ave	1.832	1.992		0.0218	0.0200	8.8	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.582		0.0215	0.0200	7.7	20.0
sec-Butylbenzene	Ave	2.517	2.642		0.0210	0.0200	5.0	20.0
1,3-Dichlorobenzene	Ave	1.358	1.398	0.6000	0.0206	0.0200	2.9	20.0
4-Isopropyltoluene	Ave	2.194	2.298		0.0210	0.0200	4.8	20.0
1,4-Dichlorobenzene	Ave	1.421	1.436	0.5000	0.0202	0.0200	1.0	20.0
n-Butylbenzene	Ave	1.821	1.919		0.0211	0.0200	5.4	20.0
1,2-Dichlorobenzene	Ave	1.283	1.360	0.4000	0.0212	0.0200	6.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-276055/3 Calibration Date: 04/25/2017 07:41

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1895.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.0952	0.0500	0.0185	0.0200	-7.7	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6694	0.2000	0.0204	0.0200	2.0	50.0
Hexachlorobutadiene	Ave	0.2651	0.2315		0.0175	0.0200	-12.7	20.0
Naphthalene	Ave	1.583	1.682		0.0213	0.0200	6.3	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5467		0.0201	0.0200	0.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2364		0.0178	0.0200	-11.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.2940		0.0182	0.0200	-9.2	20.0
Toluene-d8 (Surr)	Ave	1.277	1.366		0.0214	0.0200	7.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.5244		0.0209	0.0200	4.4	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab File ID: BFB5227.D BFB Injection Date: 04/27/2017

Instrument ID: A3UX16 BFB Injection Time: 08:35

Analysis Batch No.: 276429

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.9	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.2	
173	Less than 2.0 % of mass 174	0.8	(1.1) 1
174	50.0 - 120.00 % of mass 95	73.4	
175	5.0 - 9.0 % of mass 174	5.3	(7.2) 1
176	95.0 - 101.0 % of mass 174	71.5	(97.4) 1
177	5.0 - 9.0 % of mass 176	5.0	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-276429/3	UXM1997.D	04/27/2017	09:00
	LCS 240-276429/4	UXM1998.D	04/27/2017	09:23
	CCV 240-276429/5	UXM1999.D	04/27/2017	09:46
	MB 240-276429/7	UXM2001.D	04/27/2017	10:33
TB-042017	240-78454-1	UXM2013.D	04/27/2017	15:29
MRC-MW98A-042017	240-78454-2	UXM2014.D	04/27/2017	15:52
MRC-MW98B-042017	240-78454-3	UXM2015.D	04/27/2017	16:15
MRC-MW111A-042017	240-78454-4	UXM2016.D	04/27/2017	16:38
MRC-MW111B-042017	240-78454-5	UXM2017.D	04/27/2017	17:01
	240-78458-A-6 MS	UXM2019.D	04/27/2017	17:48
	240-78458-A-6 MSD	UXM2020.D	04/27/2017	18:11

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-276429/3 Calibration Date: 04/27/2017 09:00

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1997.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.3224	0.1000	0.0204	0.0200	1.8	20.0
Chloromethane	Ave	0.3878	0.3638	0.1000	0.0188	0.0200	-6.2	20.0
Vinyl chloride	Ave	0.3718	0.3919	0.1000	0.0211	0.0200	5.4	20.0
Butadiene	Ave	0.2937	0.3542		0.0241	0.0200	20.6*	20.0
Bromomethane	Ave	0.2332	0.2121	0.0500	0.0182	0.0200	-9.0	20.0
Chloroethane	Ave	0.2186	0.2371	0.0500	0.0217	0.0200	8.5	20.0
Dichlorofluoromethane	Ave	0.5919	0.5291		0.0179	0.0200	-10.6	20.0
Trichlorofluoromethane	Ave	0.4159	0.3917	0.1000	0.0188	0.0200	-5.8	20.0
Ethyl ether	Ave	0.2501	0.2384		0.0191	0.0200	-4.7	20.0
Acrolein	Ave	0.0337	0.0383		0.114	0.100	13.6	50.0
1,1-Dichloroethene	Ave	0.2878	0.2626	0.1000	0.0182	0.0200	-8.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1704	0.0500	0.0193	0.0200	-3.7	20.0
Acetone	Lin1		0.0819	0.0100	0.0380	0.0400	-5.1	50.0
Iodomethane	Ave	0.4621	0.4089		0.0177	0.0200	-11.5	20.0
Carbon disulfide	Ave	0.9514	0.8564	0.1000	0.0180	0.0200	-10.0	20.0
3-Chloro-1-propene	Ave	0.2013	0.1732		0.0172	0.0200	-14.0	20.0
Methyl acetate	Ave	0.1624	0.1531	0.1000	0.0943	0.100	-5.7	20.0
Methylene Chloride	Lin1		0.2925	0.1000	0.0173	0.0200	-13.7	50.0
2-Methyl-2-propanol	Lin1		0.0184		0.188	0.200	-5.8	50.0
Acrylonitrile	Ave	0.0864	0.0800		0.185	0.200	-7.4	20.0
Methyl tert-butyl ether	Ave	0.8308	0.7449	0.1000	0.0179	0.0200	-10.3	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.2884	0.1000	0.0183	0.0200	-8.7	20.0
Hexane	Ave	0.2897	0.2516		0.0174	0.0200	-13.2	20.0
1,1-Dichloroethane	Ave	0.5224	0.5015	0.2000	0.0192	0.0200	-4.0	20.0
Vinyl acetate	Ave	0.4093	0.3904		0.0191	0.0200	-4.6	50.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3262	0.1000	0.0185	0.0200	-7.3	20.0
2,2-Dichloropropane	Ave	0.3598	0.3168		0.0176	0.0200	-12.0	20.0
2-Butanone (MEK)	Ave	0.0989	0.0928	0.0100	0.0375	0.0400	-6.2	20.0
Chlorobromomethane	Ave	0.1468	0.1368		0.0186	0.0200	-6.8	20.0
Tetrahydrofuran	Ave	0.0577	0.0567		0.0393	0.0400	-1.7	20.0
Chloroform	Ave	0.5317	0.4852	0.2000	0.0183	0.0200	-8.7	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.3972	0.1000	0.0182	0.0200	-9.1	20.0
Cyclohexane	Ave	0.4257	0.3893	0.1000	0.0183	0.0200	-8.6	20.0
1,1-Dichloropropene	Ave	0.3946	0.3826		0.0194	0.0200	-3.0	20.0
Carbon tetrachloride	Ave	0.3605	0.3169	0.1000	0.0176	0.0200	-12.1	20.0
Isobutyl alcohol	Ave	0.0063	0.0063		0.500	0.500	-0.0	20.0
1,2-Dichloroethane	Ave	0.3955	0.3673	0.1000	0.0186	0.0200	-7.1	20.0
Benzene	Ave	1.238	1.149	0.5000	0.0186	0.0200	-7.2	20.0
n-Heptane	Lin1		0.1375		0.0176	0.0200	-11.9	20.0
Trichloroethene	Ave	0.3129	0.2784	0.1500	0.0178	0.0200	-11.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-276429/3 Calibration Date: 04/27/2017 09:00

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1997.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3437	0.1000	0.0172	0.0200	-13.9	20.0
1,2-Dichloropropane	Ave	0.2764	0.2649	0.1000	0.0192	0.0200	-4.1	20.0
Dibromomethane	Ave	0.1648	0.1432		0.0174	0.0200	-13.1	20.0
1,4-Dioxane	Ave	0.0024	0.0023		0.387	0.400	-3.2	50.0
Dichlorobromomethane	Ave	0.3799	0.3328	0.1500	0.0175	0.0200	-12.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1302		0.0369	0.0400	-7.8	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4090	0.1500	0.0179	0.0200	-10.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.1962	0.0500	0.0384	0.0400	-4.0	20.0
Toluene	Ave	1.523	1.632	0.4000	0.0214	0.0200	7.1	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4740	0.1000	0.0204	0.0200	1.8	20.0
Ethyl methacrylate	Ave	0.3726	0.4266		0.0229	0.0200	14.5	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2837	0.1000	0.0214	0.0200	6.9	20.0
1,3-Dichloropropane	Ave	0.4781	0.5241		0.0219	0.0200	9.6	20.0
Tetrachloroethene	Ave	0.2566	0.2755	0.1500	0.0215	0.0200	7.4	20.0
2-Hexanone	Ave	0.1699	0.1872	0.0500	0.0441	0.0400	10.2	20.0
Chlorodibromomethane	Ave	0.3007	0.3107		0.0207	0.0200	3.4	20.0
Ethylene Dibromide	Ave	0.2584	0.2853		0.0221	0.0200	10.4	20.0
Chlorobenzene	Ave	0.9683	1.026	0.3000	0.0212	0.0200	6.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3501		0.0208	0.0200	4.2	20.0
Ethylbenzene	Ave	0.5186	0.5672		0.0219	0.0200	9.4	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.7141		0.0218	0.0200	8.8	20.0
o-Xylene	Ave	0.6658	0.7053		0.0212	0.0200	5.9	20.0
Styrene	Ave	1.131	1.213	0.3000	0.0214	0.0200	7.2	20.0
Bromoform	Ave	0.1830	0.1735	0.1000	0.0190	0.0200	-5.2	20.0
Isopropylbenzene	Ave	1.648	1.758	0.1000	0.0213	0.0200	6.7	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6561	0.3000	0.0226	0.0200	12.8	20.0
Bromobenzene	Ave	0.6921	0.7518		0.0217	0.0200	8.6	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1966		0.0220	0.0200	9.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1297		0.0160	0.0200	-20.0	20.0
N-Propylbenzene	Ave	0.7108	0.8272		0.0233	0.0200	16.4	20.0
2-Chlorotoluene	Ave	0.6372	0.6905		0.0217	0.0200	8.4	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.488		0.0221	0.0200	10.6	20.0
4-Chlorotoluene	Ave	0.6808	0.7535		0.0221	0.0200	10.7	20.0
tert-Butylbenzene	Ave	1.832	2.072		0.0226	0.0200	13.1	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.671		0.0223	0.0200	11.5	20.0
sec-Butylbenzene	Ave	2.517	2.745		0.0218	0.0200	9.0	20.0
1,3-Dichlorobenzene	Ave	1.358	1.437	0.6000	0.0212	0.0200	5.8	20.0
4-Isopropyltoluene	Ave	2.194	2.384		0.0217	0.0200	8.7	20.0
1,4-Dichlorobenzene	Ave	1.421	1.502	0.5000	0.0211	0.0200	5.7	20.0
n-Butylbenzene	Ave	1.821	2.004		0.0220	0.0200	10.0	20.0
1,2-Dichlorobenzene	Ave	1.283	1.391	0.4000	0.0217	0.0200	8.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVIS 240-276429/3 Calibration Date: 04/27/2017 09:00

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1997.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1084	0.0500	0.0209	0.0200	4.7	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6944	0.2000	0.0212	0.0200	5.9	50.0
Hexachlorobutadiene	Ave	0.2651	0.2398		0.0181	0.0200	-9.6	20.0
Naphthalene	Ave	1.583	1.711		0.0216	0.0200	8.1	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5669		0.0208	0.0200	4.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2325		0.0175	0.0200	-12.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.2976		0.0184	0.0200	-8.1	20.0
Toluene-d8 (Surr)	Ave	1.277	1.348		0.0211	0.0200	5.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.5205		0.0207	0.0200	3.7	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: ICIS 240-272636/9 Date Analyzed: 03/30/2017 15:28

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1256168a.D Heated Purge: (Y/N) N

Calibration ID: 39201

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1131500	5.17	877028	7.82	486514	10.03
UPPER LIMIT		2263000	5.67	1754056	8.32	973028	10.53
LOWER LIMIT		565750	4.67	438514	7.32	243257	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272636/19		1156798	5.17	900454	7.82	499033	10.03
CCVIS 240-276598/3		1114904	5.16	860201	7.82	489819	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: CCVIS 240-276598/3 Date Analyzed: 04/27/2017 17:12

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1256785.D Heated Purge: (Y/N) N

Calibration ID: 39201

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1114904	5.16	860201	7.82	489819	10.03
UPPER LIMIT		2229808	5.66	1720402	8.32	979638	10.53
LOWER LIMIT		557452	4.66	430101	7.32	244910	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-276598/4		1127854	5.16	879974	7.82	486883	10.03
CCV 240-276598/5		1127518	5.17	894518	7.82	466617	10.03
MB 240-276598/7		1059957	5.17	846055	7.82	449135	10.03
240-78519-1	TB-042117	1051329	5.17	813270	7.82	433205	10.03
240-78519-2	MRC-MW25A-042117	1041025	5.17	808758	7.82	429243	10.03
240-78519-3	MRC-MW08B-042117	1022917	5.17	802941	7.82	424798	10.03
240-78519-2 MS	MRC-MW25A-042117 MS	1052008	5.17	833443	7.82	470568	10.03
240-78519-2 MSD	MRC-MW25A-042117 MSD	1079678	5.17	827807	7.82	477880	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: ICIS 240-272263/9 Date Analyzed: 03/29/2017 15:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1391.D Heated Purge: (Y/N) N

Calibration ID: 39180

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		776481	5.24	664123	7.92	397614	10.16
UPPER LIMIT		1552962	5.74	1328246	8.42	795228	10.66
LOWER LIMIT		388241	4.74	332062	7.42	198807	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272263/20		753863	5.24	641867	7.92	381510	10.16
CCVIS 240-275993/3		896346	5.25	724372	7.93	428765	10.16
CCVIS 240-276055/3		941435	5.25	661771	7.93	384700	10.16
CCVIS 240-276429/3		910010	5.25	660706	7.93	376032	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: CCVIS 240-275993/3 Date Analyzed: 04/24/2017 16:46

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1865.D Heated Purge: (Y/N) N

Calibration ID: 39171

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		896346	5.25	724372	7.93	428765	10.16
UPPER LIMIT		1792692	5.75	1448744	8.43	857530	10.66
LOWER LIMIT		448173	4.75	362186	7.43	214383	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-275993/4		879631	5.24	703411	7.92	409956	10.16
CCV 240-275993/5		850683	5.24	691738	7.92	386037	10.16
MB 240-275993/7		830040	5.24	674854	7.93	374791	10.16
240-78295-1	TB-041817	790641	5.24	647087	7.92	353267	10.16
240-78295-2	MRC-MW14B-041817	761107	5.24	622268	7.92	344305	10.16
240-78295-3	MRC-MW100A-041817	766062	5.25	628042	7.93	352461	10.16
240-78295-4	MRC-MW100B-041817	775831	5.24	639425	7.92	345464	10.16
240-78295-5	MRC-MW72B-041817	755142	5.24	614264	7.92	347877	10.16
240-78241-E-9 MS		816864	5.24	654694	7.92	385413	10.16
240-78241-H-9 MSD		828963	5.24	669549	7.92	388652	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: CCVIS 240-276055/3 Date Analyzed: 04/25/2017 07:41

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1895.D Heated Purge: (Y/N) N

Calibration ID: 39171

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		941435	5.25	661771	7.93	384700	10.16
UPPER LIMIT		1882870	5.75	1323542	8.43	769400	10.66
LOWER LIMIT		470718	4.75	330886	7.43	192350	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-276055/4		946243	5.24	675832	7.92	378279	10.16
CCV 240-276055/5		904559	5.24	647884	7.92	357082	10.16
MB 240-276055/7		892741	5.24	650206	7.92	349555	10.16
240-78379-1	TB-041917	855546	5.25	628309	7.93	336392	10.16
240-78379-2	MRC-MW81B-041917	841577	5.25	637148	7.93	330075	10.16
240-78379-3	MRC-MW92C-041917	845664	5.25	619867	7.93	334031	10.16
240-78379-4	MRC-MW48A-041917	846699	5.25	625522	7.92	333804	10.16
240-78379-5	MRC-DUP12-041917	816564	5.25	610385	7.93	330403	10.16
240-78330-B-5 MS		834303	5.25	608267	7.93	337171	10.16
240-78330-B-5 MSD		885612	5.24	638186	7.92	361826	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: CCVIS 240-276429/3 Date Analyzed: 04/27/2017 09:00

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1997.D Heated Purge: (Y/N) N

Calibration ID: 39171

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		910010	5.25	660706	7.93	376032	10.16
UPPER LIMIT		1820020	5.75	1321412	8.43	752064	10.66
LOWER LIMIT		455005	4.75	330353	7.43	188016	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-276429/4		922426	5.24	672678	7.93	375185	10.16
CCV 240-276429/5		905047	5.24	664231	7.93	346809	10.16
MB 240-276429/7		879037	5.25	656760	7.92	341399	10.16
240-78454-1	TB-042017	822819	5.25	619272	7.93	315302	10.16
240-78454-2	MRC-MW98A-042017	815593	5.25	620872	7.93	326189	10.16
240-78454-3	MRC-MW98B-042017	806953	5.25	616931	7.93	315387	10.16
240-78454-4	MRC-MW111A-042017	809814	5.25	619090	7.93	322885	10.16
240-78454-5	MRC-MW111B-042017	814295	5.25	606420	7.93	319751	10.16
240-78458-A-6 MS		884506	5.25	659907	7.93	365610	10.16
240-78458-A-6 MSD		880830	5.25	647984	7.93	356982	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: A3UX16 Start Date: 03/29/2017 13:36

Analysis Batch Number: 272263 End Date: 03/29/2017 21:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272263/1		03/29/2017 13:36	1	BFB5200.D	DB-624 0.18(mm)
STD8260 240-272263/6 IC		03/29/2017 14:02	1	UXM1388.D	DB-624 0.18(mm)
STD8260 240-272263/7 IC		03/29/2017 14:25	1	UXM1389.D	DB-624 0.18(mm)
STD8260 240-272263/8 IC		03/29/2017 14:48	1	UXM1390.D	DB-624 0.18(mm)
ICIS 240-272263/9		03/29/2017 15:11	1	UXM1391.D	DB-624 0.18(mm)
STD8260 240-272263/10 IC		03/29/2017 15:34	1	UXM1392.D	DB-624 0.18(mm)
STD8260 240-272263/11 IC		03/29/2017 15:56	1	UXM1393.D	DB-624 0.18(mm)
STDA9 240-272263/13 IC		03/29/2017 16:47	1		DB-624 0.18(mm)
STDA9 240-272263/14 IC		03/29/2017 17:10	1		DB-624 0.18(mm)
STDA9 240-272263/15 IC		03/29/2017 17:33	1		DB-624 0.18(mm)
STDA9 240-272263/16 IC		03/29/2017 17:55	1		DB-624 0.18(mm)
STDA9 240-272263/17 IC		03/29/2017 18:18	1		DB-624 0.18(mm)
STDA9 240-272263/18 IC		03/29/2017 18:41	1		DB-624 0.18(mm)
ICV 240-272263/20		03/29/2017 19:27	1	UXM1402.D	DB-624 0.18(mm)
ICV 240-272263/21		03/29/2017 19:50	1		DB-624 0.18(mm)
MDLV 240-272263/22		03/29/2017 20:13	1		DB-624 0.18(mm)
MDLV 240-272263/23		03/29/2017 20:37	1		DB-624 0.18(mm)
MDLV 240-272263/24		03/29/2017 21:00	1		DB-624 0.18(mm)
ZZZZZ		03/29/2017 21:23	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: A3UX12 Start Date: 03/30/2017 12:55

Analysis Batch Number: 272636 End Date: 03/30/2017 18:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272636/2		03/30/2017 12:55	1	BFB3508.D	DB-624 0.18(mm)
STD8260 240-272636/6 IC		03/30/2017 14:15	1	U1256165.D	DB-624 0.18(mm)
STD8260 240-272636/7 IC		03/30/2017 14:40	1	U1256166.D	DB-624 0.18(mm)
STD8260 240-272636/8 IC		03/30/2017 15:04	1	U1256167.D	DB-624 0.18(mm)
ICIS 240-272636/9		03/30/2017 15:28	1	U1256168a.D	DB-624 0.18(mm)
STD8260 240-272636/10 IC		03/30/2017 15:53	1	U1256169.D	DB-624 0.18(mm)
STD8260 240-272636/11 IC		03/30/2017 16:17	1	U1256170.D	DB-624 0.18(mm)
ICV 240-272636/19		03/30/2017 17:09	1	U1256172.D	DB-624 0.18(mm)
MDLV 240-272636/21		03/30/2017 17:34	1		DB-624 0.18(mm)
MDLV 240-272636/22		03/30/2017 17:59	1		DB-624 0.18(mm)
ZZZZZ		03/30/2017 18:23	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: A3UX16 Start Date: 04/24/2017 16:15

Analysis Batch Number: 275993 End Date: 04/25/2017 03:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-275993/1		04/24/2017 16:15	1	BFB5221.D	DB-624 0.18(mm)
CCVIS 240-275993/3		04/24/2017 16:46	1	UXM1865.D	DB-624 0.18(mm)
LCS 240-275993/4		04/24/2017 17:10	1	UXM1866.D	DB-624 0.18(mm)
CCV 240-275993/5		04/24/2017 17:33	1	UXM1867.D	DB-624 0.18(mm)
MDLV 240-275993/6		04/24/2017 17:56	1		DB-624 0.18(mm)
MB 240-275993/7		04/24/2017 18:20	1	UXM1869.D	DB-624 0.18(mm)
ZZZZZ		04/24/2017 18:43	1		DB-624 0.18(mm)
ZZZZZ		04/24/2017 19:06	2.5		DB-624 0.18(mm)
ZZZZZ		04/24/2017 19:29	1		DB-624 0.18(mm)
ZZZZZ		04/24/2017 19:53	1		DB-624 0.18(mm)
ZZZZZ		04/24/2017 20:16	1		DB-624 0.18(mm)
ZZZZZ		04/24/2017 20:39	1		DB-624 0.18(mm)
ZZZZZ		04/24/2017 21:02	200		DB-624 0.18(mm)
ZZZZZ		04/24/2017 21:25	100		DB-624 0.18(mm)
ZZZZZ		04/24/2017 21:48	250		DB-624 0.18(mm)
ZZZZZ		04/24/2017 22:11	1		DB-624 0.18(mm)
ZZZZZ		04/24/2017 22:34	1		DB-624 0.18(mm)
ZZZZZ		04/24/2017 22:57	1		DB-624 0.18(mm)
240-78295-1		04/24/2017 23:21	1	UXM1882.D	DB-624 0.18(mm)
240-78295-2		04/24/2017 23:43	1	UXM1883.D	DB-624 0.18(mm)
240-78295-3		04/25/2017 00:44	1	UXM1884.D	DB-624 0.18(mm)
240-78295-4		04/25/2017 01:07	5	UXM1885.D	DB-624 0.18(mm)
240-78295-5		04/25/2017 01:30	100	UXM1886.D	DB-624 0.18(mm)
ZZZZZ		04/25/2017 01:53	1		DB-624 0.18(mm)
240-78241-E-9 MS		04/25/2017 02:39	250	UXM1889.D	DB-624 0.18(mm)
240-78241-H-9 MSD		04/25/2017 03:02	250	UXM1890.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: A3UX16 Start Date: 04/25/2017 07:10

Analysis Batch Number: 276055 End Date: 04/25/2017 16:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-276055/1		04/25/2017 07:10	1	BFB5222.D	DB-624 0.18(mm)
CCVIS 240-276055/3		04/25/2017 07:41	1	UXM1895.D	DB-624 0.18(mm)
LCS 240-276055/4		04/25/2017 08:04	1	UXM1896.D	DB-624 0.18(mm)
CCV 240-276055/5		04/25/2017 08:27	1	UXM1897.D	DB-624 0.18(mm)
MDLV 240-276055/6		04/25/2017 08:50	1		DB-624 0.18(mm)
MB 240-276055/7		04/25/2017 09:13	1	UXM1899.D	DB-624 0.18(mm)
ZZZZZ		04/25/2017 09:36	1		DB-624 0.18(mm)
ZZZZZ		04/25/2017 10:12	1		DB-624 0.18(mm)
ZZZZZ		04/25/2017 10:35	1		DB-624 0.18(mm)
ZZZZZ		04/25/2017 10:58	1		DB-624 0.18(mm)
ZZZZZ		04/25/2017 11:21	1		DB-624 0.18(mm)
ZZZZZ		04/25/2017 11:44	1		DB-624 0.18(mm)
ZZZZZ		04/25/2017 12:08	1		DB-624 0.18(mm)
ZZZZZ		04/25/2017 12:31	20		DB-624 0.18(mm)
ZZZZZ		04/25/2017 12:54	1		DB-624 0.18(mm)
ZZZZZ		04/25/2017 13:17	10		DB-624 0.18(mm)
ZZZZZ		04/25/2017 13:40	1		DB-624 0.18(mm)
ZZZZZ		04/25/2017 14:04	1		DB-624 0.18(mm)
240-78379-1		04/25/2017 14:27	1	UXM1912.D	DB-624 0.18(mm)
240-78379-2		04/25/2017 14:50	10	UXM1913.D	DB-624 0.18(mm)
240-78379-3		04/25/2017 15:14	1	UXM1914.D	DB-624 0.18(mm)
240-78379-4		04/25/2017 15:36	50	UXM1915.D	DB-624 0.18(mm)
240-78379-5		04/25/2017 15:59	1	UXM1916.D	DB-624 0.18(mm)
240-78330-B-5 MS		04/25/2017 16:22	10	UXM1917.D	DB-624 0.18(mm)
240-78330-B-5 MSD		04/25/2017 16:45	10	UXM1918.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: A3UX16 Start Date: 04/27/2017 08:35

Analysis Batch Number: 276429 End Date: 04/27/2017 18:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-276429/2		04/27/2017 08:35	1	BFB5227.D	DB-624 0.18(mm)
CCVIS 240-276429/3		04/27/2017 09:00	1	UXM1997.D	DB-624 0.18(mm)
LCS 240-276429/4		04/27/2017 09:23	1	UXM1998.D	DB-624 0.18(mm)
CCV 240-276429/5		04/27/2017 09:46	1	UXM1999.D	DB-624 0.18(mm)
MDLV 240-276429/6		04/27/2017 10:09	1		DB-624 0.18(mm)
MB 240-276429/7		04/27/2017 10:33	1	UXM2001.D	DB-624 0.18(mm)
ZZZZZ		04/27/2017 11:07	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 11:30	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 12:02	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 12:24	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 12:47	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 13:10	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 13:33	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 13:56	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 14:20	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 14:43	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 15:06	1		DB-624 0.18(mm)
240-78454-1		04/27/2017 15:29	1	UXM2013.D	DB-624 0.18(mm)
240-78454-2		04/27/2017 15:52	1	UXM2014.D	DB-624 0.18(mm)
240-78454-3		04/27/2017 16:15	12.5	UXM2015.D	DB-624 0.18(mm)
240-78454-4		04/27/2017 16:38	1	UXM2016.D	DB-624 0.18(mm)
240-78454-5		04/27/2017 17:01	12.5	UXM2017.D	DB-624 0.18(mm)
ZZZZZ		04/27/2017 17:24	10		DB-624 0.18(mm)
240-78458-A-6 MS		04/27/2017 17:48	10	UXM2019.D	DB-624 0.18(mm)
240-78458-A-6 MSD		04/27/2017 18:11	10	UXM2020.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: A3UX12 Start Date: 04/27/2017 16:48

Analysis Batch Number: 276598 End Date: 04/28/2017 03:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-276598/1		04/27/2017 16:48	1	BFB3530.D	DB-624 0.18(mm)
CCVIS 240-276598/3		04/27/2017 17:12	1	U1256785.D	DB-624 0.18(mm)
LCS 240-276598/4		04/27/2017 17:36	1	U1256786.D	DB-624 0.18(mm)
CCV 240-276598/5		04/27/2017 17:59	1	U1256787.D	DB-624 0.18(mm)
MDLV 240-276598/6		04/27/2017 18:22	1		DB-624 0.18(mm)
MB 240-276598/7		04/27/2017 18:46	1	U1256789.D	DB-624 0.18(mm)
ZZZZZ		04/27/2017 19:10	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 19:34	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 20:23	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 20:48	1		DB-624 0.18(mm)
ZZZZZ		04/27/2017 21:10	1		DB-624 0.18(mm)
240-78519-1		04/28/2017 02:03	1	U1256807.D	DB-624 0.18(mm)
240-78519-2		04/28/2017 02:28	5	U1256808.D	DB-624 0.18(mm)
240-78519-3		04/28/2017 02:52	1	U1256809.D	DB-624 0.18(mm)
240-78519-2 MS		04/28/2017 03:17	5	U1256810.D	DB-624 0.18(mm)
240-78519-2 MSD		04/28/2017 03:41	5	U1256811.D	DB-624 0.18(mm)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW14B-041817	240-78295-2	70
MRC-MW100A-041817	240-78295-3	92
MRC-MW100B-041817	240-78295-4	89
MRC-MW72B-041817	240-78295-5	96
MRC-DUP11-041817	240-78295-6	84
MRC-MW81B-041917	240-78379-2	90
MRC-MW92C-041917	240-78379-3	85
MRC-MW48A-041917	240-78379-4	92
MRC-MW98A-042017	240-78454-2	85
MRC-MW98B-042017	240-78454-3	91
MRC-MW111A-042017	240-78454-4	92
MRC-MW111B-042017	240-78454-5	111
MRC-MW25A-042117	240-78519-2	114
MRC-MW08B-042117	240-78519-3	107
MRC-DUP13-042117	240-78519-4	103
	MB 200-116321/1-A	89
	MB 200-116383/1-A	102
	LCS 200-116321/2-A	95
	LLCS 200-116383/2-A	118

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
	LLCSD 200-116383/3-A	98

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	50-150

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24971_55.D

Lab ID: LCS 200-116321/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	1.91	96	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LOW LEVEL CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24985_27.D

Lab ID: LLCS 200-116383/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LLCS CONCENTRATION (ug/L)	LLCS % REC	QC LIMITS REC	#
1,4-Dioxane	0.200	0.248	124	50-150	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA LOW LEVEL CONTROL STANDARD DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24985_28.D

Lab ID: LLCSD 200-116383/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LLCSD CONCENTRATION (ug/L)	LLCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	0.200	0.252	126	1	50	50-150	

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab File ID: Z24971_56.D Lab Sample ID: MB 200-116321/1-A

Matrix: Water Date Extracted: 05/02/2017 18:45

Instrument ID: CHZ.i Date Analyzed: 05/04/2017 09:05

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
MRC-MW100A-041817	240-78295-3	Z24971_42.D	05/04/2017 00:21
MRC-MW72B-041817	240-78295-5	Z24971_44.D	05/04/2017 00:53
MRC-MW81B-041917	240-78379-2	Z24971_46.D	05/04/2017 01:25
MRC-MW92C-041917	240-78379-3	Z24971_47.D	05/04/2017 01:41
MRC-MW48A-041917	240-78379-4	Z24971_48.D	05/04/2017 01:57
MRC-MW98A-042017	240-78454-2	Z24971_49.D	05/04/2017 02:13
MRC-MW111A-042017	240-78454-4	Z24971_51.D	05/04/2017 02:44
MRC-MW14B-041817	240-78295-2	Z24971_54.D	05/04/2017 08:34
	LCS 200-116321/2-A	Z24971_55.D	05/04/2017 08:50
MRC-MW100B-041817	240-78295-4	Z24971_69.D	05/04/2017 12:33
MRC-DUP11-041817	240-78295-6	Z24971_70.D	05/04/2017 12:48
MRC-MW98B-042017	240-78454-3	Z24971_71.D	05/04/2017 13:04

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-116321/1-A

Matrix: Water | Lab File ID: Z24971_56.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 05/02/2017 18:45

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 09:05

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116359 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	89		46-130

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab File ID: Z24985_29.D Lab Sample ID: MB 200-116383/1-A

Matrix: Water Date Extracted: 05/04/2017 11:00

Instrument ID: CHZ.i Date Analyzed: 05/04/2017 21:11

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LLCS 200-116383/2-A	Z24985_27.D	05/04/2017 20:39
	LLCSD 200-116383/3-A	Z24985_28.D	05/04/2017 20:55
MRC-MW25A-042117	240-78519-2	Z24985_48.D	05/05/2017 02:08
MRC-MW08B-042117	240-78519-3	Z24985_49.D	05/05/2017 02:24
MRC-DUP13-042117	240-78519-4	Z24985_50.D	05/05/2017 02:39
MRC-MW111B-042017	240-78454-5	Z24985_77.D	05/05/2017 09:41

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-78295-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-116383/1-A

Matrix: Water | Lab File ID: Z24985_29.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 05/04/2017 11:00

Sample wt/vol: 100(mL) | Date Analyzed: 05/04/2017 21:11

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 116397 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	102		46-130

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab File ID: BFB Injection Date:

Instrument ID: BFB Injection Time:

Lab File ID: DFTPP Injection Date:

Instrument ID: DFTPP Injection Time:

Analysis Batch No.:

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-115982/4	Z24808_04.D	04/20/2017	17:21
	ICIS 200-115982/6	Z24808_06.D	04/20/2017	17:52
	IC 200-115982/7	Z24808_07.D	04/20/2017	18:08
	IC 200-115982/9	Z24808_09.D	04/20/2017	18:41
	ICV 200-115982/10	Z24808_10.D	04/20/2017	18:57
	CCV 200-116359/41	Z24971_41.D	05/04/2017	00:05
MRC-MW100A-041817	240-78295-3	Z24971_42.D	05/04/2017	00:21
MRC-MW72B-041817	240-78295-5	Z24971_44.D	05/04/2017	00:53
MRC-MW81B-041917	240-78379-2	Z24971_46.D	05/04/2017	01:25
MRC-MW92C-041917	240-78379-3	Z24971_47.D	05/04/2017	01:41
MRC-MW48A-041917	240-78379-4	Z24971_48.D	05/04/2017	01:57
MRC-MW98A-042017	240-78454-2	Z24971_49.D	05/04/2017	02:13
MRC-MW111A-042017	240-78454-4	Z24971_51.D	05/04/2017	02:44
	CCV 200-116359/52	Z24971_52.D	05/04/2017	03:00
MRC-MW14B-041817	240-78295-2	Z24971_54.D	05/04/2017	08:34
	LCS 200-116321/2-A	Z24971_55.D	05/04/2017	08:50
	MB 200-116321/1-A	Z24971_56.D	05/04/2017	09:05
	CCV 200-116359/61	Z24971_61.D	05/04/2017	10:25
MRC-MW100B-041817	240-78295-4	Z24971_69.D	05/04/2017	12:33
MRC-DUP11-041817	240-78295-6	Z24971_70.D	05/04/2017	12:48
MRC-MW98B-042017	240-78454-3	Z24971_71.D	05/04/2017	13:04
	CCV 200-116359/72	Z24971_72.D	05/04/2017	13:20
	CCV 200-116397/26	Z24985_26.D	05/04/2017	20:24
	LLCS 200-116383/2-A	Z24985_27.D	05/04/2017	20:39
	LLCSD 200-116383/3-A	Z24985_28.D	05/04/2017	20:55
	MB 200-116383/1-A	Z24985_29.D	05/04/2017	21:11
	CCV 200-116397/40	Z24985_40.D	05/05/2017	00:03
MRC-MW25A-042117	240-78519-2	Z24985_48.D	05/05/2017	02:08
MRC-MW08B-042117	240-78519-3	Z24985_49.D	05/05/2017	02:24
MRC-DUP13-042117	240-78519-4	Z24985_50.D	05/05/2017	02:39
	CCV 200-116397/51	Z24985_51.D	05/05/2017	02:54
	CCV 200-116397/76	Z24985_76.D	05/05/2017	09:25
MRC-MW111B-042017	240-78454-5	Z24985_77.D	05/05/2017	09:41

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab File ID: BFB Injection Date:

Instrument ID: BFB Injection Time:

Lab File ID: DFTPP Injection Date:

Instrument ID: DFTPP Injection Time:

Analysis Batch No.:

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 200-116397/78	Z24985_78.D	05/05/2017	09:56

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-78295-1 Analy Batch No.: 115982

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2017 17:05 Calibration End Date: 04/20/2017 18:41 Calibration ID: 37126

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-115982/9	Z24808_09.D
Level 2	IC 200-115982/8	Z24808_08.D
Level 3	IC 200-115982/7	Z24808_07.D
Level 4	ICIS 200-115982/6	Z24808_06.D
Level 5	IC 200-115982/5	Z24808_05.D
Level 6	IC 200-115982/4	Z24808_04.D
Level 7	IC 200-115982/11	Z24808_11.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.9371 0.8322	0.9125 0.8513	0.8873	0.8494	0.8061	Ave		0.8680			0.0500	5.3		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.6043 0.6072	0.5956 0.6322	0.6217	0.6120	0.5970	Ave		0.6100				2.2		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-78295-1 Analy Batch No.: 115982

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2017 17:05 Calibration End Date: 04/20/2017 18:41 Calibration ID: 37126

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-115982/9	Z24808_09.D
Level 2	IC 200-115982/8	Z24808_08.D
Level 3	IC 200-115982/7	Z24808_07.D
Level 4	ICIS 200-115982/6	Z24808_06.D
Level 5	IC 200-115982/5	Z24808_05.D
Level 6	IC 200-115982/4	Z24808_04.D
Level 7	IC 200-115982/11	Z24808_11.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	3250 120608	6527 248676	15645	31361	59327	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	104786 110003	106504 115418	109626	112970	109839	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICV 200-115982/10 Calibration Date: 04/20/2017 18:57

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24808_10.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.7986	0.0500	184	200	-8.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 200-116359/41 Calibration Date: 05/04/2017 00:05

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24971_41.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	1.086	0.0500	125	100	25.1	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6769	0.0500	555	500	11.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 200-116359/52 Calibration Date: 05/04/2017 03:00

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24971_52.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9779	0.0500	901	800	12.7	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6521	0.0500	534	500	6.9	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 200-116359/61 Calibration Date: 05/04/2017 10:25

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24971_61.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	1.122	0.0500	129	100	29.3	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6842	0.0500	561	500	12.2	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 200-116359/72 Calibration Date: 05/04/2017 13:20

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24971_72.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9814	0.0500	904	800	13.1	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6678	0.0500	547	500	9.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 200-116397/26 Calibration Date: 05/04/2017 20:24

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24985_26.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9426	0.0500	869	800	8.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6502	0.0500	533	500	6.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 200-116397/40 Calibration Date: 05/05/2017 00:03

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24985_40.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9522	0.0500	110	100	9.7	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6534	0.0500	536	500	7.1	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 200-116397/51 Calibration Date: 05/05/2017 02:54

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24985_51.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9810	0.0500	904	800	13.0	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6673	0.0500	547	500	9.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 200-116397/76 Calibration Date: 05/05/2017 09:25

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24985_76.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9383	0.0500	865	800	8.1	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6389	0.0500	524	500	4.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 200-116397/78 Calibration Date: 05/05/2017 09:56

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24985_78.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	1.072	0.0500	124	100	23.5	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6829	0.0500	560	500	12.0	30.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Sample No.: ICIS 200-115982/6 Date Analyzed: 04/20/2017 17:52

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24808_06.D Heated Purge: (Y/N) N

Calibration ID: 37126

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		184600	3.45				
UPPER LIMIT		276900	3.95				
LOWER LIMIT		92300	2.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-115982/10		164476	3.44				
CCV 200-116359/41		164675	3.47				
240-78295-3	MRC-MW100A-041817	175145	3.47				
240-78295-5	MRC-MW72B-041817	161394	3.45				
240-78379-2	MRC-MW81B-041917	182341	3.48				
240-78379-3	MRC-MW92C-041917	177791	3.47				
240-78379-4	MRC-MW48A-041917	161087	3.45				
240-78454-2	MRC-MW98A-042017	146759	3.44				
240-78454-4	MRC-MW111A-042017	154503	3.44				
CCV 200-116359/52		160595	3.45				
240-78295-2	MRC-MW14B-041817	160826	3.47				
LCS 200-116321/2-A		147732	3.44				
MB 200-116321/1-A		137898	3.44				
CCV 200-116359/61		161760	3.47				
240-78295-4	MRC-MW100B-041817	148207	3.45				
240-78295-6	MRC-DUP11-041817	132740	3.44				
240-78454-3	MRC-MW98B-042017	144696	3.44				
CCV 200-116359/72		177429	3.47				
CCV 200-116397/26		155493	3.46				
LLCS 200-116383/2-A		132911	3.44				
LLCSD 200-116383/3-A		143141	3.45				
MB 200-116383/1-A		126734	3.43				
CCV 200-116397/40		153423	3.47				
240-78519-2	MRC-MW25A-042117	128231	3.44				
240-78519-3	MRC-MW08B-042117	150357	3.47				
240-78519-4	MRC-DUP13-042117	149249	3.47				
CCV 200-116397/51		134384	3.44				
CCV 200-116397/76		132120	3.44				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Sample No.: ICIS 200-115982/6 Date Analyzed: 04/20/2017 17:52

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24808_06.D Heated Purge: (Y/N) N

Calibration ID: 37126

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		184600	3.45				
UPPER LIMIT		276900	3.95				
LOWER LIMIT		92300	2.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-78454-5	MRC-MW111B-042017	127117	3.44				
CCV 200-116397/78		135778	3.45				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/20/2017 16:23

Analysis Batch Number: 115982 End Date: 04/20/2017 18:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/20/2017 16:23	1		Rxi-5ms 0.25(mm)
BFB 200-115982/2		04/20/2017 16:38	1		Rxi-5ms 0.25(mm)
CCV 200-115982/3		04/20/2017 16:49	1		Rxi-5ms 0.25(mm)
IC 200-115982/11		04/20/2017 17:05	1	Z24808_11.D	Rxi-5ms 0.25(mm)
IC 200-115982/4		04/20/2017 17:21	1	Z24808_04.D	Rxi-5ms 0.25(mm)
IC 200-115982/5		04/20/2017 17:36	1	Z24808_05.D	Rxi-5ms 0.25(mm)
ICIS 200-115982/6		04/20/2017 17:52	1	Z24808_06.D	Rxi-5ms 0.25(mm)
IC 200-115982/7		04/20/2017 18:08	1	Z24808_07.D	Rxi-5ms 0.25(mm)
IC 200-115982/8		04/20/2017 18:25	1	Z24808_08.D	Rxi-5ms 0.25(mm)
IC 200-115982/9		04/20/2017 18:41	1	Z24808_09.D	Rxi-5ms 0.25(mm)
ICV 200-115982/10		04/20/2017 18:57	1	Z24808_10.D	Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Instrument ID: CHZ.i Start Date: 04/25/2017 14:41

Analysis Batch Number: 116110 End Date: 04/25/2017 22:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-116110/1		04/25/2017 14:41	1	Z24865_01.D	Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 15:14	1		Rxi-5ms 0.25(mm)
CCVL 200-116110/3		04/25/2017 15:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 16:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 16:21	1.667		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 16:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 16:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 17:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 17:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 17:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 17:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 18:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 18:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 18:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 19:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 19:17	1		Rxi-5ms 0.25(mm)
CCV 200-116110/17		04/25/2017 19:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 19:49	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 20:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 20:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 20:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 20:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 21:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 21:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 21:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 21:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		04/25/2017 22:13	1		Rxi-5ms 0.25(mm)
CCV 200-116110/28		04/25/2017 22:29	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Instrument ID: CHZ.i Start Date: 05/03/2017 13:22

Analysis Batch Number: 116359 End Date: 05/04/2017 13:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-116359/1		05/03/2017 13:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 13:40	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 13:56	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 14:12	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 14:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 14:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 15:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 15:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 15:32	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 15:48	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 16:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 16:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 16:37	2		Rxi-5ms 0.25(mm)
CCV 200-116359/14		05/03/2017 16:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 17:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 17:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 17:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 17:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 18:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 18:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 18:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 19:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 19:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 19:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 19:49	1		Rxi-5ms 0.25(mm)
CCV 200-116359/26		05/03/2017 20:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 20:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 20:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 20:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 21:09	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 21:25	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 21:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 21:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 22:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 22:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 22:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 23:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 23:17	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 23:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/03/2017 23:49	1		Rxi-5ms 0.25(mm)
CCV 200-116359/41		05/04/2017 00:05	1	Z24971_41.D	Rxi-5ms 0.25(mm)
240-78295-3		05/04/2017 00:21	1	Z24971_42.D	Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 00:37	1		Rxi-5ms 0.25(mm)
240-78295-5		05/04/2017 00:53	1	Z24971_44.D	Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 01:09	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Instrument ID: CHZ.i Start Date: 05/03/2017 13:22

Analysis Batch Number: 116359 End Date: 05/04/2017 13:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
240-78379-2		05/04/2017 01:25	1	Z24971_46.D	Rxi-5ms 0.25(mm)
240-78379-3		05/04/2017 01:41	1	Z24971_47.D	Rxi-5ms 0.25(mm)
240-78379-4		05/04/2017 01:57	1	Z24971_48.D	Rxi-5ms 0.25(mm)
240-78454-2		05/04/2017 02:13	1	Z24971_49.D	Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 02:29	1		Rxi-5ms 0.25(mm)
240-78454-4		05/04/2017 02:44	1	Z24971_51.D	Rxi-5ms 0.25(mm)
CCV 200-116359/52		05/04/2017 03:00	1	Z24971_52.D	Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 08:18	1.667		Rxi-5ms 0.25(mm)
240-78295-2		05/04/2017 08:34	20	Z24971_54.D	Rxi-5ms 0.25(mm)
LCS 200-116321/2-A		05/04/2017 08:50	1	Z24971_55.D	Rxi-5ms 0.25(mm)
MB 200-116321/1-A		05/04/2017 09:05	1	Z24971_56.D	Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 09:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 09:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 09:53	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 10:09	1		Rxi-5ms 0.25(mm)
CCV 200-116359/61		05/04/2017 10:25	1	Z24971_61.D	Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 10:41	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 10:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 11:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 11:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 11:45	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 12:01	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 12:17	1		Rxi-5ms 0.25(mm)
240-78295-4		05/04/2017 12:33	6.667	Z24971_69.D	Rxi-5ms 0.25(mm)
240-78295-6		05/04/2017 12:48	10	Z24971_70.D	Rxi-5ms 0.25(mm)
240-78454-3		05/04/2017 13:04	12.5	Z24971_71.D	Rxi-5ms 0.25(mm)
CCV 200-116359/72		05/04/2017 13:20	1	Z24971_72.D	Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Instrument ID: CHZ.i Start Date: 05/04/2017 13:52

Analysis Batch Number: 116397 End Date: 05/05/2017 09:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 200-116397/1		05/04/2017 13:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 14:08	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 14:23	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 14:39	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 14:55	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 15:10	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 15:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 15:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 15:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 16:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 16:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 16:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 17:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 17:16	1		Rxi-5ms 0.25(mm)
CCV 200-116397/15		05/04/2017 17:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 17:47	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 18:03	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 18:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 18:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 18:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 19:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 19:21	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 19:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 19:52	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 20:08	1		Rxi-5ms 0.25(mm)
CCV 200-116397/26		05/04/2017 20:24	1	Z24985_26.D	Rxi-5ms 0.25(mm)
LLCS 200-116383/2-A		05/04/2017 20:39	1	Z24985_27.D	Rxi-5ms 0.25(mm)
LLCSD 200-116383/3-A		05/04/2017 20:55	1	Z24985_28.D	Rxi-5ms 0.25(mm)
MB 200-116383/1-A		05/04/2017 21:11	1	Z24985_29.D	Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 21:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 21:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 21:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 22:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 22:29	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 22:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 23:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 23:16	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 23:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/04/2017 23:47	1		Rxi-5ms 0.25(mm)
CCV 200-116397/40		05/05/2017 00:03	1	Z24985_40.D	Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 00:18	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 00:34	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 00:50	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 01:05	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 01:21	1		Rxi-5ms 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Instrument ID: CHZ.i Start Date: 05/04/2017 13:52

Analysis Batch Number: 116397 End Date: 05/05/2017 09:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/05/2017 01:37	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 01:52	1		Rxi-5ms 0.25(mm)
240-78519-2		05/05/2017 02:08	1	Z24985_48.D	Rxi-5ms 0.25(mm)
240-78519-3		05/05/2017 02:24	1	Z24985_49.D	Rxi-5ms 0.25(mm)
240-78519-4		05/05/2017 02:39	1	Z24985_50.D	Rxi-5ms 0.25(mm)
CCV 200-116397/51		05/05/2017 02:54	1	Z24985_51.D	Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 03:10	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 03:26	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 03:42	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 03:57	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 04:13	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 04:28	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 04:44	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 05:00	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 05:15	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 05:31	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 05:46	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 06:02	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 06:18	1		Rxi-5ms 0.25(mm)
CCV 200-116397/65		05/05/2017 06:33	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 06:49	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 07:04	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 07:20	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 07:36	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 07:51	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 08:07	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 08:22	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 08:38	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 08:54	1		Rxi-5ms 0.25(mm)
ZZZZZ		05/05/2017 09:09	1		Rxi-5ms 0.25(mm)
CCV 200-116397/76		05/05/2017 09:25	1	Z24985_76.D	Rxi-5ms 0.25(mm)
240-78454-5		05/05/2017 09:41	16.667	Z24985_77.D	Rxi-5ms 0.25(mm)
CCV 200-116397/78		05/05/2017 09:56	1	Z24985_78.D	Rxi-5ms 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Batch Number: 116321 Batch Start Date: 05/02/17 18:45 Batch Analyst: Litchfield, Brian D

Batch Method: 3535A Batch End Date: 05/02/17 19:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00013	EX522SUi 00026		
MB 200-116321/1		3535A, 522		100 mL	2 mL		100 uL		
LCS 200-116321/2		3535A, 522		100 mL	2 mL	100 uL	100 uL		
240-78295-K-2	MRC-MW14B-041817	3535A, 522	T	100 mL	2 mL		100 uL		
240-78295-D-3	MRC-MW100A-041817	3535A, 522	T	100 mL	2 mL		100 uL		
240-78295-D-4	MRC-MW100B-041817	3535A, 522	T	100 mL	2 mL		100 uL		
240-78295-K-5	MRC-MW72B-041817	3535A, 522	T	100 mL	2 mL		100 uL		
240-78295-A-6	MRC-DUP11-041817	3535A, 522	T	100 mL	2 mL		100 uL		
240-78379-J-2	MRC-MW81B-041917	3535A, 522	T	100 mL	2 mL		100 uL		
240-78379-D-3	MRC-MW92C-041917	3535A, 522	T	100 mL	2 mL		100 uL		
240-78379-J-4	MRC-MW48A-041917	3535A, 522	T	100 mL	2 mL		100 uL		
240-78454-E-2	MRC-MW98A-042017	3535A, 522	T	100 mL	2 mL		100 uL		
240-78454-D-3	MRC-MW98B-042017	3535A, 522	T	100 mL	2 mL		100 uL		
240-78454-D-4	MRC-MW111A-042017	3535A, 522	T	100 mL	2 mL		100 uL		

Batch Notes	
Acid ID	1018022
Acid Name	hcl
First End time	1915 5/2/17
Analyst ID - Reagent Drop Witness	MAP
Solvent Lot #	1031535
Solvent Name	mecl2
SPE Cartridge ID	022466-er
First Start time	1845 5/2/17

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 240-78295-1

SDG No.:

Batch Number: 116383 Batch Start Date: 05/04/17 11:00 Batch Analyst: Murray, John W

Batch Method: 3535A Batch End Date: 05/04/17 11:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX522SPi 00013	EX522SUi 00026		
MB 200-116383/1		3535A, 522		100 mL	2 mL		100 uL		
LLCS 200-116383/2		3535A, 522		100 mL	2 mL	10 uL	100 uL		
LLCSD 200-116383/3		3535A, 522		100 mL	2 mL	10 uL	100 uL		
240-78454-D-5	MRC-MW111B-042017	3535A, 522	T	100 mL	2 mL		100 uL		
240-78519-I-2	MRC-MW25A-042117	3535A, 522	T	100 mL	2 mL		100 uL		
240-78519-D-3	MRC-MW08B-042117	3535A, 522	T	100 mL	2 mL		100 uL		
240-78519-A-4	MRC-DUP13-042117	3535A, 522	T	100 mL	2 mL		100 uL		

Batch Notes	
Acid ID	1018022
Acid Name	HCl
First End time	1140 5/4/17
Analyst ID - Reagent Drop Witness	KSH
Solvent Lot #	1031535
Solvent Name	MeCl2
SPE Cartridge ID	022466-ER
First Start time	1100 5/4/17

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-PLOT/Q ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TFE1 #
MRC-MW14B-041817	240-78295-2	76
MRC-MW14B-041817	240-78295-2	87
MRC-MW72B-041817	240-78295-5	82
MRC-MW81B-041917	240-78379-2	79
MRC-MW48A-041917	240-78379-4	77
MRC-MW48A-041917	240-78379-4	78
MRC-MW25A-042117	240-78519-2	86
	MB 240-276683/4	88
	MB 240-276952/4	90
	MB 240-277132/4	86
	MB 240-277266/4	82
	MB 240-277484/4	86
	LCS 240-276683/5	84
	LCS 240-276952/5	85
	LCS 240-277132/5	87
	LCS 240-277266/5	84
	LCS 240-277484/5	85
	240-78330-D-1 MS	81
	240-78381-J-5 MS	85
	180-65467-K-5 MS	84
	240-78532-D-2 MS	83
	240-78330-D-1 MSD	80
	240-78381-J-5 MSD	84
	180-65467-K-5 MSD	82
	240-78532-D-2 MSD	82

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	76-121

Column to be used to flag recovery values

FORM II RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0428005.D

Lab ID: LCS 240-276683/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Ethane	374	359	96	76-131	
Methane	199	195	98	80-130	
Ethylene	349	338	97	79-132	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0501005.D

Lab ID: LCS 240-276952/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Ethane	374	354	95	76-131	
Methane	199	193	97	80-130	
Ethylene	349	338	97	79-132	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0502005.D

Lab ID: LCS 240-277132/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Ethane	374	347	93	76-131	
Methane	199	187	94	80-130	
Ethylene	349	331	95	79-132	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0503005.D

Lab ID: LCS 240-277266/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Ethane	374	362	97	76-131	
Methane	199	196	99	80-130	
Ethylene	349	343	98	79-132	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0504005.D

Lab ID: LCS 240-277484/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Ethane	374	364	97	76-131	
Methane	199	196	99	80-130	
Ethene	349	347	100	79-132	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0428009.D

Lab ID: 240-78330-D-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Ethane	1870	1.5 J	1740	93	65-126	
Methane	994	6400	7920	153	48-159	4
Ethylene	1750	0.65 U	1650	95	60-135	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0502010.D

Lab ID: 240-78381-J-5 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Ethane	748	7.8	688	91	65-126	
Methane	397	2500	1720	-207	48-159	4
Ethylene	698	190	741	78	60-135	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0503007.D

Lab ID: 180-65467-K-5 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Methane	994	1600	2970	140	48-159	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0504009.D

Lab ID: 240-78532-D-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Ethane	3740	44	3430	91	65-126	
Methane	1990	5000	7250	111	48-159	
Ethene	3490	3200	6520	96	60-135	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0428010.D

Lab ID: 240-78330-D-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Ethane	1870	1730	92	1	11	65-126	
Methane	994	8720	234	10	23	48-159	4
Ethylene	1750	1630	94	1	10	60-135	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0502011.D

Lab ID: 240-78381-J-5 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Ethane	748	699	92	2	11	65-126	
Methane	397	1750	-200	2	23	48-159	4
Ethylene	698	752	80	1	10	60-135	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0503008.D

Lab ID: 180-65467-K-5 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methane	994	3180	161	7	23	48-159	F1

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Sample not included in SDG.

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Level: Low Lab File ID: RSK0504010.D

Lab ID: 240-78532-D-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Ethane	3740	3530	93	3	11	65-126	
Methane	1990	7740	136	7	23	48-159	
Ethene	3490	6800	104	4	10	60-135	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: MB 240-276683/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0428004.D Lab File ID:(2)

Date Analyzed:(1) 04/28/2017 12:51 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-276683/5	04/28/2017 13:08	
	240-78330-D-1 MS	04/28/2017 14:17	
	240-78330-D-1 MSD	04/28/2017 14:34	
MRC-MW14B-041817	240-78295-2	04/28/2017 16:17	
MRC-MW72B-041817	240-78295-5	04/28/2017 16:34	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-276683/4

Matrix: Water Lab File ID: RSK0428004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 33(mL) Date Analyzed: 04/28/2017 12:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 276683 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	0.080	U	0.50	0.080
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	88		76-121

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: MB 240-276952/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0501004.D Lab File ID:(2)

Date Analyzed:(1) 05/01/2017 15:10 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-276952/5	05/01/2017 15:27	
MRC-MW14B-041817	240-78295-2	05/01/2017 15:44	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-276952/4

Matrix: Water Lab File ID: RSK0501004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 33(mL) Date Analyzed: 05/01/2017 15:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 276952 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	0.080	U	0.50	0.080
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	90		76-121

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: MB 240-277132/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0502004.D Lab File ID:(2)

Date Analyzed:(1) 05/02/2017 14:32 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-277132/5	05/02/2017 14:49	
	240-78381-J-5 MS	05/02/2017 16:15	
	240-78381-J-5 MSD	05/02/2017 16:32	
MRC-MW48A-041917	240-78379-4	05/02/2017 19:58	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-277132/4

Matrix: Water Lab File ID: RSK0502004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 33(mL) Date Analyzed: 05/02/2017 14:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 277132 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	0.080	U	0.50	0.080
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	86		76-121

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: MB 240-277266/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0503004.D Lab File ID:(2)

Date Analyzed:(1) 05/03/2017 11:47 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-277266/5	05/03/2017 12:04	
	180-65467-K-5 MS	05/03/2017 12:38	
	180-65467-K-5 MSD	05/03/2017 12:56	
MRC-MW81B-041917	240-78379-2	05/03/2017 16:21	
MRC-MW48A-041917	240-78379-4	05/03/2017 16:38	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-277266/4

Matrix: Water Lab File ID: RSK0503004.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 33(mL) Date Analyzed: 05/03/2017 11:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 277266 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	0.080	U	0.50	0.080
74-85-1	Ethylene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	82		76-121

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: MB 240-277484/4

Matrix: Water Date Extracted:

Lab File ID:(1) RSK0504004.D Lab File ID:(2)

Date Analyzed:(1) 05/04/2017 13:14 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-277484/5	05/04/2017 13:31	
MRC-MW25A-042117	240-78519-2	05/04/2017 14:05	
	240-78532-D-2 MS	05/04/2017 14:40	
	240-78532-D-2 MSD	05/04/2017 14:57	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-277484/4

Matrix: Water | Lab File ID: RSK0504004.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 33(mL) | Date Analyzed: 05/04/2017 13:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 277484 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	0.14	U	0.50	0.14
74-82-8	Methane	0.080	U	0.50	0.080
74-85-1	Ethene	0.13	U	0.50	0.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	86		76-121

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: STD3 240-251578/5 Date Analyzed: 10/15/2016 15:31

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0101505.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
INITIAL CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-251578/5 ICRT		10/15/2016 15:31	RSK0101505.D	3.34		
ICV 240-251578/9		10/15/2016 16:39	RSK0101509.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: CCVRT 240-276683/3 Date Analyzed: 04/28/2017 12:33

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0428003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-276683/3		04/28/2017 12:33	RSK0428003.D	3.34		
MB 240-276683/4		04/28/2017 12:51	RSK0428004.D	3.34		
LCS 240-276683/5		04/28/2017 13:08	RSK0428005.D	3.34		
240-78330-D-1 MS		04/28/2017 14:17	RSK0428009.D	3.34		
240-78330-D-1 MSD		04/28/2017 14:34	RSK0428010.D	3.34		
CCV 240-276683/14		04/28/2017 15:42	RSK0428014.D	3.34		
240-78295-2	MRC-MW14B-041817	04/28/2017 16:17	RSK0428016.D	3.34		
240-78295-5	MRC-MW72B-041817	04/28/2017 16:34	RSK0428017.D	3.34		
CCV 240-276683/24		04/28/2017 18:34	RSK0428024.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: CCVRT 240-276952/3 Date Analyzed: 05/01/2017 14:53

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0501003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-276952/3		05/01/2017 14:53	RSK0501003.D	3.34		
MB 240-276952/4		05/01/2017 15:10	RSK0501004.D	3.34		
LCS 240-276952/5		05/01/2017 15:27	RSK0501005.D	3.34		
240-78295-2	MRC-MW14B-041817	05/01/2017 15:44	RSK0501006.D	3.34		
CCV 240-276952/14		05/01/2017 18:02	RSK0501014.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: CCVRT 240-277132/3 Date Analyzed: 05/02/2017 14:15

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0502003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-277132/3		05/02/2017 14:15	RSK0502003.D	3.34		
MB 240-277132/4		05/02/2017 14:32	RSK0502004.D	3.34		
LCS 240-277132/5		05/02/2017 14:49	RSK0502005.D	3.34		
240-78381-J-5 MS		05/02/2017 16:15	RSK0502010.D	3.34		
240-78381-J-5 MSD		05/02/2017 16:32	RSK0502011.D	3.34		
CCV 240-277132/14		05/02/2017 17:24	RSK0502014.D	3.34		
240-78379-4	MRC-MW48A-041917	05/02/2017 19:58	RSK0502023.D	3.34		
CCV 240-277132/24		05/02/2017 20:16	RSK0502024.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: CCVRT 240-277266/3 Date Analyzed: 05/03/2017 11:30

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0503003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-277266/3		05/03/2017 11:30	RSK0503003.D	3.34		
MB 240-277266/4		05/03/2017 11:47	RSK0503004.D	3.34		
LCS 240-277266/5		05/03/2017 12:04	RSK0503005.D	3.34		
180-65467-K-5 MS		05/03/2017 12:38	RSK0503007.D	3.34		
180-65467-K-5 MSD		05/03/2017 12:56	RSK0503008.D	3.34		
CCV 240-277266/14		05/03/2017 14:38	RSK0503014.D	3.34		
240-78379-2	MRC-MW81B-041917	05/03/2017 16:21	RSK0503020.D	3.34		
240-78379-4	MRC-MW48A-041917	05/03/2017 16:38	RSK0503021.D	3.34		
CCV 240-277266/22		05/03/2017 16:55	RSK0503022.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Sample No.: CCVRT 240-277484/3 Date Analyzed: 05/04/2017 12:57

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): RSK0504003.D Heated Purge: (Y/N) N

Calibration ID: 36649

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.34		
UPPER LIMIT				3.39		
LOWER LIMIT				3.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-277484/3		05/04/2017 12:57	RSK0504003.D	3.34		
MB 240-277484/4		05/04/2017 13:14	RSK0504004.D	3.34		
LCS 240-277484/5		05/04/2017 13:31	RSK0504005.D	3.34		
240-78519-2	MRC-MW25A-042117	05/04/2017 14:05	RSK0504007.D	3.34		
240-78532-D-2 MS		05/04/2017 14:40	RSK0504009.D	3.34		
240-78532-D-2 MSD		05/04/2017 14:57	RSK0504010.D	3.34		
CCV 240-277484/14		05/04/2017 16:05	RSK0504014.D	3.34		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Methane	1.181	1.182	1.182	1.183	1.180	1.182					1.132 - 1.232	1.182
Ethene	1.877	1.879	1.879	1.879	1.877	1.872					1.822 - 1.922	1.877
Acetylene	1.991	1.992	1.992	1.993	1.990	1.988					1.938 - 2.038	1.991
Ethane	2.201	2.199	2.199	2.203	2.197	2.192					1.992 - 2.392	2.199
Propane	4.544	4.546	4.546	4.546	4.537	4.522					4.472 - 4.572	4.540
1,1,1-Trifluoroethane	3.344	3.342	3.339	3.336	3.327						3.239 - 3.439	3.338

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Methane	17282 15031	14572 14891	15021	15273	Ave		15344.8970				6.4		30.0			
Ethene	13272 13787	13164 13601	13786	13941	Ave		13591.7814				2.3		30.0			
Acetylene	6429.5 6415.6	5892.3 6088.3	6401.9	6607.6	Ave		6305.86557				4.2		30.0			
Ethane	13684 14544	13730 14408	14353	14588	Ave		14217.7545				2.9		30.0			
Propane	13814 15013	13864 14908	14731	14670	Ave		14499.9021				3.6		30.0			
1,1,1-Trifluoroethane	7519.7 7756.9	8027.5	7602.5	8141.8	Ave		7809.65873				3.4		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-78295-1 Analy Batch No.: 251578

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/15/2016 14:57 Calibration End Date: 10/15/2016 16:22 Calibration ID: 36649

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-251578/3	RSK0101503.D
Level 2	STD2 240-251578/4	RSK0101504.D
Level 3	STD3 240-251578/5	RSK0101505.D
Level 4	STD4 240-251578/6	RSK0101506.D
Level 5	STD5 240-251578/7	RSK0101507.D
Level 6	STD6 240-251578/8	RSK0101508.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methane	Ave	4466 29592381	28968	149298	1518050	5973962	0.258 1987	1.99	9.94	99.4	397
Ethene	Ave	6023 47472057	45954	240631	2433289	9624127	0.454 3490	3.49	17.5	175	698
Acetylene	Ave	2700 19661432	19034	103400	1067223	4143730	0.420 3229	3.23	16.2	162	646
Ethane	Ave	6652 53866713	51341	268353	2727568	10875652	0.486 3739	3.74	18.7	187	748
Propane	Ave	9839 81662046	75958	403531	4018573	16448361	0.712 5478	5.48	27.4	274	1096
1,1,1-Trifluoroethane	Ave	1961483	4187852	19830722	42474965	80933618	261	522	2608	5217	10434

Curve Type Legend:
Ave = Average

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICV 240-251578/9 Calibration Date: 10/15/2016 16:39

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0101509.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	12457		161	199	-18.8	30.0
Ethene	Ave	13592	11508		296	349	-15.3	30.0
Acetylene	Ave	6306	5081		260	323	-19.4	30.0
Ethane	Ave	14218	12173		320	374	-14.4	30.0
Propane	Ave	14500	12390		467	546	-14.6	30.0
1,1,1-Trifluoroethane	Ave	7810	6762		2640	3050	-13.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICV 240-251578/9 Calibration Date: 10/15/2016 16:39

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0101509.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.20	1.99	2.39
Propane	4.54	4.47	4.57
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVRT 240-276683/3 Calibration Date: 04/28/2017 12:33

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0428003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15552		201	199	1.3	30.0
Ethene	Ave	13592	13855		356	349	1.9	30.0
Acetylene	Ave	6306	7074		362	323	12.2	30.0
Ethane	Ave	14218	14135		372	374	-0.6	30.0
Propane	Ave	14500	13085		494	548	-9.8	30.0
1,1,1-Trifluoroethane	Ave	7810	6843		2670	3050	-12.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVRT 240-276683/3 Calibration Date: 04/28/2017 12:33

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0428003.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-276683/14 Calibration Date: 04/28/2017 15:42

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0428014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14318		185	199	-6.7	30.0
Ethene	Ave	13592	11897		306	349	-12.5	30.0
Acetylene	Ave	6306	5087		261	323	-19.3	30.0
Ethane	Ave	14218	12728		335	374	-10.5	30.0
Propane	Ave	14500	11526		435	548	-20.5	30.0
1,1,1-Trifluoroethane	Ave	7810	5880		2300	3050	-24.7	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-276683/14 Calibration Date: 04/28/2017 15:42

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0428014.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-276683/24 Calibration Date: 04/28/2017 18:34

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0428024.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14322		185	199	-6.7	30.0
Ethene	Ave	13592	11479		295	349	-15.5	30.0
Acetylene	Ave	6306	4974		255	323	-21.1	30.0
Ethane	Ave	14218	12649		333	374	-11.0	30.0
Propane	Ave	14500	11595		438	548	-20.0	30.0
1,1,1-Trifluoroethane	Ave	7810	5561		2170	3050	-28.8	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-276683/24 Calibration Date: 04/28/2017 18:34

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0428024.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVRT 240-276952/3 Calibration Date: 05/01/2017 14:53

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15304		198	199	-0.3	30.0
Ethene	Ave	13592	13712		352	349	0.9	30.0
Acetylene	Ave	6306	7171		367	323	13.7	30.0
Ethane	Ave	14218	13990		368	374	-1.6	30.0
Propane	Ave	14500	12974		490	548	-10.5	30.0
1,1,1-Trifluoroethane	Ave	7810	6812		2660	3050	-12.8	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVRT 240-276952/3 Calibration Date: 05/01/2017 14:53

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501003.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-276952/14 Calibration Date: 05/01/2017 18:02

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14556		189	199	-5.1	30.0
Ethene	Ave	13592	12396		318	349	-8.8	30.0
Acetylene	Ave	6306	5373		275	323	-14.8	30.0
Ethane	Ave	14218	13153		346	374	-7.5	30.0
Propane	Ave	14500	12208		461	548	-15.8	30.0
1,1,1-Trifluoroethane	Ave	7810	6020		2350	3050	-22.9	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-276952/14 Calibration Date: 05/01/2017 18:02

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0501014.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.55	4.50	4.60
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVRT 240-277132/3 Calibration Date: 05/02/2017 14:15

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0502003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14229		184	199	-7.3	30.0
Ethene	Ave	13592	12294		316	349	-9.6	30.0
Acetylene	Ave	6306	5448		279	323	-13.6	30.0
Ethane	Ave	14218	12821		337	374	-9.8	30.0
Propane	Ave	14500	11785		445	548	-18.7	30.0
1,1,1-Trifluoroethane	Ave	7810	6267		2450	3050	-19.8	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVRT 240-277132/3 Calibration Date: 05/02/2017 14:15

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0502003.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.87	1.82	1.92
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-277132/14 Calibration Date: 05/02/2017 17:24

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0502014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14267		185	199	-7.0	30.0
Ethene	Ave	13592	12085		310	349	-11.1	30.0
Acetylene	Ave	6306	5373		275	323	-14.8	30.0
Ethane	Ave	14218	12748		335	374	-10.3	30.0
Propane	Ave	14500	11626		439	548	-19.8	30.0
1,1,1-Trifluoroethane	Ave	7810	6240		2440	3050	-20.1	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-277132/14 Calibration Date: 05/02/2017 17:24

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0502014.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.55	4.50	4.60
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-277132/24 Calibration Date: 05/02/2017 20:16

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0502024.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	13869		180	199	-9.6	30.0
Ethene	Ave	13592	11095		285	349	-18.4	30.0
Acetylene	Ave	6306	4740		243	323	-24.8	30.0
Ethane	Ave	14218	11968		315	374	-15.8	30.0
Propane	Ave	14500	10577		400	548	-27.1	30.0
1,1,1-Trifluoroethane	Ave	7810	5468		2140	3050	-30.0	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-277132/24 Calibration Date: 05/02/2017 20:16

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0502024.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVRT 240-277266/3 Calibration Date: 05/03/2017 11:30

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0503003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14871		193	199	-3.1	30.0
Ethene	Ave	13592	13065		336	349	-3.9	30.0
Acetylene	Ave	6306	6036		309	323	-4.3	30.0
Ethane	Ave	14218	13522		356	374	-4.9	30.0
Propane	Ave	14500	12472		471	548	-14.0	30.0
1,1,1-Trifluoroethane	Ave	7810	6416		2510	3050	-17.9	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVRT 240-277266/3 Calibration Date: 05/03/2017 11:30

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0503003.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.55	4.50	4.60
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-277266/14 Calibration Date: 05/03/2017 14:38

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0503014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14777		191	199	-3.7	30.0
Ethene	Ave	13592	12218		314	349	-10.1	30.0
Acetylene	Ave	6306	4814		247	323	-23.7	30.0
Ethane	Ave	14218	13099		344	374	-7.9	30.0
Propane	Ave	14500	11793		446	548	-18.7	30.0
1,1,1-Trifluoroethane	Ave	7810	5768		2250	3050	-26.1	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-277266/14 Calibration Date: 05/03/2017 14:38

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0503014.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-277266/22 Calibration Date: 05/03/2017 16:55

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0503022.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	14800		192	199	-3.5	30.0
Ethene	Ave	13592	11826		304	349	-13.0	30.0
Acetylene	Ave	6306	5060		259	323	-19.8	30.0
Ethane	Ave	14218	12862		338	374	-9.5	30.0
Propane	Ave	14500	11378		430	548	-21.5	30.0
1,1,1-Trifluoroethane	Ave	7810	5667		2210	3050	-27.4	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-277266/22 Calibration Date: 05/03/2017 16:55

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0503022.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.54	4.49	4.59
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVRT 240-277484/3 Calibration Date: 05/04/2017 12:57

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0504003.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15391		199	199	0.3	30.0
Ethene	Ave	13592	13684		351	349	0.7	30.0
Acetylene	Ave	6306	6506		333	323	3.2	30.0
Ethane	Ave	14218	14119		371	374	-0.7	30.0
Propane	Ave	14500	13078		494	548	-9.8	30.0
1,1,1-Trifluoroethane	Ave	7810	6569		2570	3050	-15.9	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCVRT 240-277484/3 Calibration Date: 05/04/2017 12:57

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0504003.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.55	4.50	4.60
1,1,1-Trifluoroethane	3.34	3.24	3.44

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-277484/14 Calibration Date: 05/04/2017 16:05

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0504014.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	15345	15091		195	199	-1.7	30.0
Ethene	Ave	13592	12796		329	349	-5.9	30.0
Acetylene	Ave	6306	4930		252	323	-21.8	30.0
Ethane	Ave	14218	13566		357	374	-4.6	30.0
Propane	Ave	14500	12431		470	548	-14.3	30.0
1,1,1-Trifluoroethane	Ave	7810	5996		2340	3050	-23.2	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: CCV 240-277484/14 Calibration Date: 05/04/2017 16:05

Instrument ID: ZPID Calib Start Date: 10/15/2016 14:57

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 10/15/2016 16:22

Lab File ID: RSK0504014.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.13	1.23
Ethene	1.88	1.83	1.93
Acetylene	1.99	1.94	2.04
Ethane	2.20	2.00	2.40
Propane	4.55	4.50	4.60
1,1,1-Trifluoroethane	3.34	3.24	3.44

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: ZPID Start Date: 10/15/2016 14:57

Analysis Batch Number: 251578 End Date: 10/15/2016 16:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-251578/3 IC		10/15/2016 14:57	1	RSK0101503.D	HP-PLOT/Q 0.53(mm)
STD2 240-251578/4 IC		10/15/2016 15:14	1	RSK0101504.D	HP-PLOT/Q 0.53(mm)
STD3 240-251578/5 ICRT		10/15/2016 15:31	1	RSK0101505.D	HP-PLOT/Q 0.53(mm)
STD4 240-251578/6 IC		10/15/2016 15:48	1	RSK0101506.D	HP-PLOT/Q 0.53(mm)
STD5 240-251578/7 IC		10/15/2016 16:05	1	RSK0101507.D	HP-PLOT/Q 0.53(mm)
STD6 240-251578/8 IC		10/15/2016 16:22	1	RSK0101508.D	HP-PLOT/Q 0.53(mm)
ICV 240-251578/9		10/15/2016 16:39	1	RSK0101509.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: ZPID Start Date: 04/28/2017 12:33

Analysis Batch Number: 276683 End Date: 04/28/2017 18:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-276683/3		04/28/2017 12:33	1	RSK0428003.D	HP-PLOT/Q 0.53(mm)
MB 240-276683/4		04/28/2017 12:51	1	RSK0428004.D	HP-PLOT/Q 0.53(mm)
LCS 240-276683/5		04/28/2017 13:08	1	RSK0428005.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 13:25	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 13:42	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 13:59	5		HP-PLOT/Q 0.53(mm)
240-78330-D-1 MS		04/28/2017 14:17	5	RSK0428009.D	HP-PLOT/Q 0.53(mm)
240-78330-D-1 MSD		04/28/2017 14:34	5	RSK0428010.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 14:51	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 15:08	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 15:25	5		HP-PLOT/Q 0.53(mm)
CCV 240-276683/14		04/28/2017 15:42	1	RSK0428014.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 16:00	5		HP-PLOT/Q 0.53(mm)
240-78295-2		04/28/2017 16:17	1	RSK0428016.D	HP-PLOT/Q 0.53(mm)
240-78295-5		04/28/2017 16:34	1	RSK0428017.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 16:51	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 17:08	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 17:26	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 17:43	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 18:00	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		04/28/2017 18:17	1		HP-PLOT/Q 0.53(mm)
CCV 240-276683/24		04/28/2017 18:34	1	RSK0428024.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: ZPID Start Date: 05/01/2017 14:53

Analysis Batch Number: 276952 End Date: 05/01/2017 22:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-276952/3		05/01/2017 14:53	1	RSK0501003.D	HP-PLOT/Q 0.53(mm)
MB 240-276952/4		05/01/2017 15:10	1	RSK0501004.D	HP-PLOT/Q 0.53(mm)
LCS 240-276952/5		05/01/2017 15:27	1	RSK0501005.D	HP-PLOT/Q 0.53(mm)
240-78295-2		05/01/2017 15:44	10	RSK0501006.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 16:02	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 16:19	10		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 16:36	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 16:53	10		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 17:11	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 17:28	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 17:45	1		HP-PLOT/Q 0.53(mm)
CCV 240-276952/14		05/01/2017 18:02	1	RSK0501014.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 18:19	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 18:36	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 18:54	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 19:11	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 19:28	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 19:45	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 20:03	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 20:20	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 20:37	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 20:54	1		HP-PLOT/Q 0.53(mm)
CCV 240-276952/25		05/01/2017 21:11	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 21:28	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/01/2017 21:45	1		HP-PLOT/Q 0.53(mm)
CCV 240-276952/28		05/01/2017 22:03	1		HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: ZPID Start Date: 05/02/2017 14:15

Analysis Batch Number: 277132 End Date: 05/02/2017 20:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-277132/3		05/02/2017 14:15	1	RSK0502003.D	HP-PLOT/Q 0.53(mm)
MB 240-277132/4		05/02/2017 14:32	1	RSK0502004.D	HP-PLOT/Q 0.53(mm)
LCS 240-277132/5		05/02/2017 14:49	1	RSK0502005.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 15:06	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 15:24	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 15:41	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 15:58	2		HP-PLOT/Q 0.53(mm)
240-78381-J-5 MS		05/02/2017 16:15	2	RSK0502010.D	HP-PLOT/Q 0.53(mm)
240-78381-J-5 MSD		05/02/2017 16:32	2	RSK0502011.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 16:50	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 17:07	1		HP-PLOT/Q 0.53(mm)
CCV 240-277132/14		05/02/2017 17:24	1	RSK0502014.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 17:41	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 17:58	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 18:16	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 18:33	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 18:50	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 19:07	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 19:24	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/02/2017 19:41	1		HP-PLOT/Q 0.53(mm)
240-78379-4		05/02/2017 19:58	1	RSK0502023.D	HP-PLOT/Q 0.53(mm)
CCV 240-277132/24		05/02/2017 20:16	1	RSK0502024.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: ZPID Start Date: 05/03/2017 11:30

Analysis Batch Number: 277266 End Date: 05/03/2017 16:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-277266/3		05/03/2017 11:30	1	RSK0503003.D	HP-PLOT/Q 0.53(mm)
MB 240-277266/4		05/03/2017 11:47	1	RSK0503004.D	HP-PLOT/Q 0.53(mm)
LCS 240-277266/5		05/03/2017 12:04	1	RSK0503005.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/03/2017 12:21	5		HP-PLOT/Q 0.53(mm)
180-65467-K-5 MS		05/03/2017 12:38	5	RSK0503007.D	HP-PLOT/Q 0.53(mm)
180-65467-K-5 MSD		05/03/2017 12:56	5	RSK0503008.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/03/2017 13:13	2		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/03/2017 13:30	2		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/03/2017 13:47	2		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/03/2017 14:04	2		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/03/2017 14:21	5		HP-PLOT/Q 0.53(mm)
CCV 240-277266/14		05/03/2017 14:38	1	RSK0503014.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/03/2017 14:55	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/03/2017 15:12	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/03/2017 15:29	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/03/2017 16:04	1		HP-PLOT/Q 0.53(mm)
240-78379-2		05/03/2017 16:21	5	RSK0503020.D	HP-PLOT/Q 0.53(mm)
240-78379-4		05/03/2017 16:38	5	RSK0503021.D	HP-PLOT/Q 0.53(mm)
CCV 240-277266/22		05/03/2017 16:55	1	RSK0503022.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: ZPID Start Date: 05/04/2017 12:57

Analysis Batch Number: 277484 End Date: 05/04/2017 18:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-277484/3		05/04/2017 12:57	1	RSK0504003.D	HP-PLOT/Q 0.53(mm)
MB 240-277484/4		05/04/2017 13:14	1	RSK0504004.D	HP-PLOT/Q 0.53(mm)
LCS 240-277484/5		05/04/2017 13:31	1	RSK0504005.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 13:48	1		HP-PLOT/Q 0.53(mm)
240-78519-2		05/04/2017 14:05	1	RSK0504007.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 14:22	10		HP-PLOT/Q 0.53(mm)
240-78532-D-2 MS		05/04/2017 14:40	10	RSK0504009.D	HP-PLOT/Q 0.53(mm)
240-78532-D-2 MSD		05/04/2017 14:57	10	RSK0504010.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 15:14	10		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 15:31	2		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 15:48	5		HP-PLOT/Q 0.53(mm)
CCV 240-277484/14		05/04/2017 16:05	1	RSK0504014.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 16:22	10		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 16:40	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 16:57	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 17:14	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 17:31	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 17:48	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 18:05	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 18:22	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		05/04/2017 18:39	1		HP-PLOT/Q 0.53(mm)
CCV 240-277484/24		05/04/2017 18:57	1		HP-PLOT/Q 0.53(mm)

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METALS

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG No.:

Project: MRC 2017 GW

Client Sample ID	Lab Sample ID
MRC-MW14B-041817	240-78295-2
MRC-MW72B-041817	240-78295-5
MRC-MW81B-041917	240-78379-2
MRC-MW92C-041917	240-78379-3
MRC-MW48A-041917	240-78379-4
MRC-MW25A-042117	240-78519-2

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00096

Analyte	ICV 240-275842/4 04/22/2017 12:31				CCV 240-275842/18 04/22/2017 13:34				CCV 240-275842/30 04/22/2017 14:33			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24500		25000	98	52100		50000	104	51900		50000	104
Iron	12900		12500	103	26600		25000	106	26600		25000	106
Magnesium	25500		25000	102	51800		50000	104	51700		50000	103
Manganese	1490		1500	99	2040		2000	102	2040		2000	102
Potassium	25200		25000	101	51500		50000	103	51100		50000	102
SiO2, Silica	6700		6420	104	11600		10700	108	11500		10700	108
Sodium	25100		25000	101	51400		50000	103	50800		50000	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00096

Analyte	CCV 240-275842/42 04/22/2017 15:26											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	52400		50000	105								
Iron	26600		25000	106								
Magnesium	52100		50000	104								
Manganese	2010		2000	101								
Potassium	52400		50000	105								
SiO2, Silica	11600		10700	108								
Sodium	51900		50000	104								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTTRCRIC_00046 Concentration Units: ug/L

CCV Source: MTTRCRIC_00046

Analyte	ICVL 240-275842/6 04/22/2017 12:40				CCVL 240-275842/52 04/22/2017 16:12							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5040		5000	101	5190		5000	104				
Iron	207		200	104	216		200	108				
Magnesium	5070		5000	101	5100		5000	102				
Manganese	15.0		15.0	100	15.6		15.0	104				
Potassium	4870	J	5000	97	4990	J	5000	100				
SiO2, Silica	1200		1070	112	1090	J	1070	102				
Sodium	4920	J	5000	98	5030		5000	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00096

Analyte	ICV 240-276536/4 04/27/2017 08:46				CCV 240-276536/48 04/27/2017 12:02				CCV 240-276536/60 04/27/2017 12:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24300		25000	97	49800		50000	100	50200		50000	100
Iron	12700		12500	102	24900		25000	99	25200		25000	101
Magnesium	25300		25000	101	49500		50000	99	50000		50000	100
Manganese	1520		1500	101	1990		2000	100	2010		2000	101
Potassium	24600		25000	98	48200		50000	96	48900		50000	98
SiO2, Silica	6670		6420	104	11100		10700	104	11300		10700	106
Sodium	24700		25000	99	48500		50000	97	49000		50000	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00096

Analyte	CCV 240-276536/72 04/27/2017 13:50											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	50100		50000	100								
Iron	25100		25000	101								
Magnesium	50200		50000	100								
Manganese	2020		2000	101								
Potassium	48700		50000	97								
SiO2, Silica	11300		10700	106								
Sodium	49000		50000	98								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTTRCRIC_00046 Concentration Units: ug/L

CCV Source: MTTRCRIC_00046

Analyte	ICVL 240-276536/6 04/27/2017 08:54				CCVL 240-276536/82 04/27/2017 14:34							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	4960	J	5000	99	5030		5000	101				
Iron	201		200	100	208		200	104				
Magnesium	4990	J	5000	100	4960	J	5000	99				
Manganese	15.1		15.0	101	16.3		15.0	108				
Potassium	4790	J	5000	96	4650	J	5000	93				
SiO2, Silica	1080	J	1070	101	1130		1070	106				
Sodium	4880	J	5000	98	4820	J	5000	96				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00096

Analyte	ICV 240-275816/4 04/21/2017 11:22				CCV 240-275816/18 04/21/2017 12:22				CCV 240-275816/30 04/21/2017 13:26			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	24200		25000	97	49800		50000	100	50300		50000	101
Iron	12700		12500	102	25000		25000	100	25300		25000	101
Magnesium	25300		25000	101	49600		50000	99	50400		50000	101
Manganese	1500		1500	100	1990		2000	99	2000		2000	100
Potassium	24600		25000	98	49400		50000	99	49400		50000	99
SiO2, Silica	6350		6420	99	10800		10700	101	10900		10700	101
Sodium	24800		25000	99	49600		50000	99	50200		50000	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MT6500ICV_00036 Concentration Units: ug/L

CCV Source: MTICPCCV_00096

Analyte	CCV 240-275816/42 04/21/2017 14:18											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	50100		50000	100								
Iron	25100		25000	100								
Magnesium	50000		50000	100								
Manganese	2010		2000	100								
Potassium	49500		50000	99								
SiO2, Silica	10900		10700	102								
Sodium	49600		50000	99								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTTRCRIC_00046 Concentration Units: ug/L

CCV Source: MTTRCRIC_00046

Analyte	ICVL 240-275816/6 04/21/2017 11:31				CCVL 240-275816/64 04/21/2017 15:52							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	4990	J	5000	100	4970	J	5000	99				
Iron	199		200	99	197		200	98				
Magnesium	5140		5000	103	5160		5000	103				
Manganese	15.3		15.0	102	15.2		15.0	101				
Potassium	4940	J	5000	99	4900	J	5000	98				
SiO2, Silica	1070	J	1070	100	1080	J	1070	101				
Sodium	4900	J	5000	98	4850	J	5000	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00191

Analyte	ICV 240-276243/7 04/25/2017 10:57				CCV 240-276243/79 04/25/2017 16:06				CCV 240-276243/91 04/25/2017 16:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.3		40.0	98	50.1		50.0	100	49.2		50.0	98
Arsenic	39.9		40.0	100	50.7		50.0	101	50.3		50.0	101
Barium	38.7		40.0	97	50.0		50.0	100	49.1		50.0	98
Beryllium	37.3		40.0	93	48.8		50.0	98	47.1		50.0	94
Cadmium	40.0		40.0	100	51.7		50.0	103	51.2		50.0	102
Chromium	40.5		40.0	101	52.7		50.0	105	52.0		50.0	104
Cobalt	40.3		40.0	101	52.4		50.0	105	52.0		50.0	104
Copper	41.1		40.0	103	53.9		50.0	108	53.9		50.0	108
Iron	10100		10000	101	12700		12500	102	12700		12500	101
Lead	39.7		40.0	99	50.2		50.0	100	49.1		50.0	98
Manganese	200		200	100	251		250	101	248		250	99
Molybdenum	39.9		40.0	100	51.1		50.0	102	50.5		50.0	101
Nickel	40.4		40.0	101	53.0		50.0	106	52.6		50.0	105
Selenium	40.3		40.0	101	48.9		50.0	98	49.3		50.0	99
Silver	40.2		40.0	100	50.6		50.0	101	49.9		50.0	100
Thallium	38.6		40.0	96	51.9		50.0	104	49.9		50.0	100
Vanadium	41.2		40.0	103	52.4		50.0	105	50.7		50.0	101
Zinc	41.6		40.0	104	52.9		50.0	106	52.5		50.0	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00191

Analyte	CCV 240-276243/95 04/25/2017 17:13				CCV 240-276243/107 04/25/2017 18:03							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.0		50.0	100	50.3		50.0	101				
Arsenic	51.2		50.0	102	52.0		50.0	104				
Barium	50.2		50.0	100	50.9		50.0	102				
Beryllium	47.0		50.0	94	48.2		50.0	96				
Cadmium	51.1		50.0	102	52.3		50.0	105				
Chromium	51.1		50.0	102	52.3		50.0	105				
Cobalt	51.3		50.0	103	52.5		50.0	105				
Copper	52.4		50.0	105	54.6		50.0	109				
Iron	12500		12500	100	12800		12500	102				
Lead	48.4		50.0	97	49.1		50.0	98				
Manganese	248		250	99	250		250	100				
Molybdenum	51.4		50.0	103	51.6		50.0	103				
Nickel	52.4		50.0	105	53.3		50.0	107				
Selenium	50.4		50.0	101	50.4		50.0	101				
Silver	50.5		50.0	101	50.3		50.0	101				
Thallium	48.7		50.0	97	50.1		50.0	100				
Vanadium	50.9		50.0	102	51.5		50.0	103				
Zinc	51.6		50.0	103	53.5		50.0	107				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-276243/9 04/25/2017 11:05				CCVL 240-276243/93 04/25/2017 17:05				CCVL 240-276243/113 04/25/2017 18:28			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.91	J	2.00	95	2.04		2.00	102	2.00		2.00	100
Arsenic	4.84	J	5.00	97	5.02		5.00	100	5.11		5.00	102
Barium	4.77	J	5.00	95	4.86	J	5.00	97	4.93	J	5.00	99
Beryllium	0.731	J	1.00	73	0.737	J	1.00	74	0.723	J	1.00	72
Cadmium	0.999	J	1.00	100	1.03		1.00	103	1.02		1.00	102
Chromium	2.00		2.00	100	2.05		2.00	102	2.05		2.00	103
Cobalt	1.05		1.00	105	1.07		1.00	107	1.11		1.00	111
Copper	2.17		2.00	108	2.31		2.00	115	2.29		2.00	115
Iron	115		100	115	115		100	115	116		100	116
Lead	1.02		1.00	102	1.13		1.00	113	1.17		1.00	117
Manganese	5.02		5.00	100	5.11		5.00	102	5.12		5.00	102
Molybdenum	4.96	J	5.00	99	4.95	J	5.00	99	4.83	J	5.00	97
Nickel	2.11		2.00	106	2.16		2.00	108	2.21		2.00	110
Selenium	4.91	J	5.00	98	4.95	J	5.00	99	5.23		5.00	105
Silver	1.00		1.00	100	1.02		1.00	102	1.00		1.00	100
Thallium	0.992	J	1.00	99	0.975	J	1.00	98	1.01		1.00	101
Vanadium	5.11		5.00	102	4.92	J	5.00	98	5.05		5.00	101
Zinc	22.0		20.0	110	23.0		20.0	115	22.7		20.0	113

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00191

Analyte	ICV 240-276554/7 04/27/2017 09:30				CCV 240-276554/22 04/27/2017 10:39				CCV 240-276554/27 04/27/2017 11:00			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	37.8		40.0	94	48.6		50.0	97	48.9		50.0	98
Antimony	39.6		40.0	99	51.4		50.0	103	50.5		50.0	101
Arsenic	40.8		40.0	102	52.1		50.0	104	51.5		50.0	103
Barium	39.8		40.0	100	53.0		50.0	106	51.2		50.0	102
Cadmium	40.7		40.0	102	53.1		50.0	106	51.9		50.0	104
Chromium	40.5		40.0	101	52.4		50.0	105	51.1		50.0	102
Cobalt	40.4		40.0	101	53.2		50.0	106	51.9		50.0	104
Copper	41.2		40.0	103	54.1		50.0	108	52.4		50.0	105
Iron	10000		10000	100	13200		12500	105	12800		12500	102
Lead	40.4		40.0	101	51.4		50.0	103	50.6		50.0	101
Manganese	198		200	99	253		250	101	248		250	99
Molybdenum	40.2		40.0	101	51.8		50.0	104	52.0		50.0	104
Nickel	41.3		40.0	103	53.6		50.0	107	52.1		50.0	104
Selenium	41.3		40.0	103	52.9		50.0	106	51.9		50.0	104
Silver	40.2		40.0	100	50.8		50.0	102	50.7		50.0	101
Thallium	39.7		40.0	99	52.3		50.0	105	53.1		50.0	106
Vanadium	41.4		40.0	104	52.5		50.0	105	51.4		50.0	103
Zinc	41.2		40.0	103					52.2		50.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTMSICVW_00075 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00191

Analyte	CCV 240-276554/34 04/27/2017 11:29											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	47.3		50.0	95								
Antimony	52.9		50.0	106								
Arsenic	52.5		50.0	105								
Barium	52.6		50.0	105								
Cadmium	53.8		50.0	108								
Chromium	51.4		50.0	103								
Cobalt	52.9		50.0	106								
Copper	53.7		50.0	107								
Iron	12800		12500	103								
Lead	51.6		50.0	103								
Manganese	250		250	100								
Molybdenum	51.5		50.0	103								
Nickel	53.6		50.0	107								
Selenium	53.4		50.0	107								
Silver	49.9		50.0	100								
Thallium	52.9		50.0	106								
Vanadium	52.1		50.0	104								
Zinc	53.3		50.0	107								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTMSCRI6020AW_00051 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00051

Analyte	ICVL 240-276554/9 04/27/2017 09:39				CCVL 240-276554/36 04/27/2017 11:38							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	0.806	J	1.00	81	0.804	J	1.00	80				
Antimony	2.05		2.00	102	2.35		2.00	118				
Arsenic	5.23		5.00	105	5.10		5.00	102				
Barium	5.02		5.00	100	5.11		5.00	102				
Cadmium	1.06		1.00	106	1.08		1.00	108				
Chromium	2.03		2.00	101	2.06		2.00	103				
Cobalt	1.06		1.00	106	1.12		1.00	112				
Copper	2.20		2.00	110	2.34		2.00	117				
Iron	118		100	118	122		100	122				
Lead	1.01		1.00	101	1.22		1.00	122				
Manganese	4.89	J	5.00	98	5.17		5.00	103				
Molybdenum	5.21	J	5.00	104	5.10	J	5.00	102				
Nickel	2.04		2.00	102	2.09		2.00	105				
Selenium	5.38		5.00	108	5.72		5.00	114				
Silver	1.00		1.00	100	0.999	J	1.00	100				
Thallium	1.03		1.00	103	1.06		1.00	106				
Vanadium	5.10		5.00	102	5.34		5.00	107				
Zinc	22.5		20.0	112	23.4		20.0	117				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTHgICV_00001_00163 Concentration Units: ug/L

CCV Source: MTHGCALW_01485

Analyte	ICV 240-275677/7-A 04/21/2017 12:39				CCV 240-275677/10-A 04/21/2017 13:13				CCV 240-275677/10-A 04/21/2017 13:36			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.81		5.00	96	5.12		5.00	102	4.99		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTHgICV_00001_00163 Concentration Units: ug/L

CCV Source: MTHGCALW_01485

Analyte	CCV 240-275677/10-A 04/21/2017 14:01				CCV 240-275677/10-A 04/21/2017 14:25							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.87		5.00	97	5.05		5.00	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTHgICV_00001_00164 Concentration Units: ug/L

CCV Source: MTHGCALW_01486

Analyte	ICV 240-275889/7-A 04/24/2017 12:05				CCV 240-275889/10-A 04/24/2017 15:37				CCV 240-275889/10-A 04/24/2017 16:02			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.09		5.00	102	5.06		5.00	101	5.02		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICV Source: MTHgICV_00001_00164 Concentration Units: ug/L

CCV Source: MTHGCALW_01486

Analyte	CCV 240-275889/10-A 04/24/2017 16:26				CCV 240-275889/10-A 04/24/2017 16:50							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.90		5.00	98	4.95		5.00	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-275677/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01485

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.207		103	50-150

Lab Sample ID: CRA 240-275889/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01486

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.189	J	95	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L

No samples affected

Analyte	RL	ICB 240-275842/5 04/22/2017 12:36		CCB 240-275842/19 04/22/2017 13:38		CCB 240-275842/31 04/22/2017 14:37		CCB 240-275842/43 04/22/2017 15:30	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Iron	100	25	U	25	U	25	U	25	U
Magnesium	5000	230	U	230	U	230	U	230	U
Manganese	15	5.1	U	5.1	U	5.1	U	5.1	U
Potassium	5000	70	U	70	U	70	U	71.4	J
SiO2, Silica	1100	140	U	140	U	140	U	140	U
Sodium	5000	330	U	330	U	330	U	330	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-276536/5 04/27/2017 08:50		CCB 240-276536/49 04/27/2017 12:06		CCB 240-276536/61 04/27/2017 13:01		CCB 240-276536/73 04/27/2017 13:54	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Iron	100	25	U	25	U	25	U	25	U
Magnesium	5000	230	U	230	U	230	U	230	U
Manganese	15	5.1	U	5.1	U	5.1	U	5.1	U
Potassium	5000	70	U	70	U	70	U	70	U
SiO2, Silica	1100	140	U	140	U	140	U	140	U
Sodium	5000	330	U	330	U	330	U	330	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-275816/5 04/21/2017 11:26		CCB 240-275816/19 04/21/2017 12:26		CCB 240-275816/31 04/21/2017 13:30		CCB 240-275816/43 04/21/2017 14:22	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	710	U	710	U	710	U	710	U
Iron	100	25	U	25	U	25	U	25	U
Magnesium	5000	230	U	230	U	230	U	230	U
Manganese	15	5.1	U	5.1	U	5.1	U	5.1	U
Potassium	5000	70	U	70	U	70	U	70	U
SiO2, Silica	1100	140	U	140	U	140	U	140	U
Sodium	5000	330	U	330	U	330	U	330	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-276243/8 04/25/2017 11:01		CCB 240-276243/80 04/25/2017 16:10		CCB 240-276243/92 04/25/2017 17:01		CCB 240-276243/96 04/25/2017 17:18	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.229	J	0.16	U	0.179	J	0.16	U
Arsenic	5.0	0.49	U	0.49	U	0.49	U	0.49	U
Barium	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Beryllium	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Cadmium	1.0	0.061	U	0.061	U	0.061	U	0.061	U
Chromium	2.0	0.60	U	0.60	U	0.60	U	0.60	U
Cobalt	1.0	0.021	U	0.021	U	0.021	U	0.021	U
Copper	2.0	0.75	U	0.75	U	0.75	U	0.75	U
Iron	100	16	U	16	U	16	U	16	U
Lead	1.0	0.11	U	0.137	J	0.152	J	0.11	U
Manganese	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Molybdenum	10	0.23	U	0.23	U	0.23	U	0.23	U
Nickel	2.0	0.23	U	0.23	U	0.23	U	0.23	U
Selenium	5.0	0.25	U	0.25	U	0.25	U	0.25	U
Silver	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Thallium	1.0	0.074	U	0.074	U	0.074	U	0.074	U
Vanadium	5.0	0.23	U	0.23	U	0.23	U	0.23	U
Zinc	20	7.3	U	7.3	U	7.3	U	7.3	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-276243/108 04/25/2017 18:07							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.177	J						
Arsenic	5.0	0.49	U						
Barium	5.0	1.1	U						
Beryllium	1.0	0.0640	J						
Cadmium	1.0	0.061	U						
Chromium	2.0	0.60	U						
Cobalt	1.0	0.0260	J						
Copper	2.0	0.75	U						
Iron	100	16	U						
Lead	1.0	0.266	J						
Manganese	5.0	1.1	U						
Molybdenum	10	0.23	U						
Nickel	2.0	0.23	U						
Selenium	5.0	0.25	U						
Silver	1.0	0.020	U						
Thallium	1.0	0.074	U						
Vanadium	5.0	0.23	U						
Zinc	20	7.3	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-276554/8 04/27/2017 09:34		CCB 240-276554/23 04/27/2017 10:44		CCB 240-276554/28 04/27/2017 11:04		CCB 240-276554/35 04/27/2017 11:33	
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	0.053	U	0.053	U	0.053	U	0.0960	J
Antimony	2.0	0.238	J	0.321	J	0.330	J	0.469	J
Arsenic	5.0	0.49	U	0.49	U	0.49	U	0.49	U
Barium	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Cadmium	1.0	0.061	U	0.061	U	0.061	U	0.0740	J
Chromium	2.0	0.60	U	0.60	U	0.60	U	0.60	U
Cobalt	1.0	0.021	U	0.021	U	0.021	U	0.0430	J
Copper	2.0	0.75	U	0.75	U	0.75	U	0.75	U
Iron	100	16	U	16	U	16	U	16	U
Lead	1.0	0.11	U	0.158	J	0.11	U	0.234	J
Manganese	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Molybdenum	10	0.23	U	0.231	J	0.23	U	0.23	U
Nickel	2.0	0.23	U	0.23	U	0.23	U	0.23	U
Selenium	5.0	0.25	U	0.25	U	0.25	U	0.25	U
Silver	1.0	0.020	U	0.020	U	0.020	U	0.020	U
Thallium	1.0	0.074	U	0.074	U	0.074	U	0.0740	J
Vanadium	5.0	0.23	U	0.23	U	0.23	U	0.23	U
Zinc	20	7.3	U	7.3	U	7.3	U	7.3	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-275677/8-A 04/21/2017 12:40		CCB 240-275677/11-A 04/21/2017 13:14		CCB 240-275677/11-A 04/21/2017 13:39		CCB 240-275677/11-A 04/21/2017 14:03	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-275677/11-A 04/21/2017 14:28							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-275889/8-A 04/24/2017 12:07		CCB 240-275889/11-A 04/24/2017 15:39		CCB 240-275889/11-A 04/24/2017 16:04		CCB 240-275889/11-A 04/24/2017 16:28	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-275889/11-A 04/24/2017 16:52							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-275590/1-A

Instrument Code: I9 Batch No.: 275816

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	710	U		6010C
7439-89-6	Iron	25	U		6010C
7440-09-7	Potassium	70	U		6010C
7439-95-4	Magnesium	230	U		6010C
7439-96-5	Manganese	5.1	U		6010C
7440-23-5	Sodium	330	U		6010C
14808-60-7	SiO2, Silica	140	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-275710/1-A

Instrument Code: I12 Batch No.: 275842

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	710	U		6010C
7439-89-6	Iron	25	U		6010C
7440-09-7	Potassium	70	U		6010C
7439-95-4	Magnesium	230	U		6010C
7439-96-5	Manganese	5.1	U		6010C
7440-23-5	Sodium	330	U		6010C
14808-60-7	SiO2, Silica	140	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-276308/1-A

Instrument Code: I12 Batch No.: 276536

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	710	U		6010C
7439-89-6	Iron	25.4	J		6010C
7440-09-7	Potassium	70	U		6010C
7439-95-4	Magnesium	230	U		6010C
7439-96-5	Manganese	5.1	U		6010C
7440-23-5	Sodium	390	J		6010C
14808-60-7	SiO2, Silica	140	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-275590/1-A

Instrument Code: I10 Batch No.: 276243

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.27	U		6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	0.52	U		6020A
7440-41-7	Beryllium	0.40	U		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.26	U		6020A
7440-50-8	Copper	0.36	U		6020A
7439-89-6	Iron	5.3	U		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	0.420	J		6020A
7440-02-0	Nickel	0.28	U		6020A
7439-92-1	Lead	0.16	U		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	6.2	U		6020A
7440-22-4	Silver	0.030	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-275710/1-A

Instrument Code: I10 Batch No.: 276243

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.27	U		6020A
7440-38-2	Arsenic	0.35	U		6020A
7440-39-3	Barium	1.86	J		6020A
7440-43-9	Cadmium	0.31	U		6020A
7440-48-4	Cobalt	0.13	U		6020A
7440-47-3	Chromium	0.26	U		6020A
7440-50-8	Copper	0.901	J		6020A
7439-89-6	Iron	14.8	J		6020A
7439-98-7	Molybdenum	0.51	U		6020A
7439-96-5	Manganese	0.883	J		6020A
7440-02-0	Nickel	0.28	U		6020A
7439-92-1	Lead	0.179	J		6020A
7782-49-2	Selenium	0.48	U		6020A
7440-28-0	Thallium	0.28	U		6020A
7440-62-2	Vanadium	0.54	U		6020A
7440-66-6	Zinc	6.2	U		6020A
7440-22-4	Silver	0.030	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-275710/1-A

Instrument Code: I10 Batch No.: 276554

CAS No.	Analyte	Concentration	C	Q	Method
7440-41-7	Beryllium	0.40	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-275593/1-A

Instrument Code: H3 Batch No.: 275790

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-275712/1-A

Instrument Code: H3 Batch No.: 275972

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICSA 240-275842/8 Instrument ID: I12

Lab File ID: I12042217A.asc ICS Source: MTTRICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**472100**	**94**
Iron	**200000**	**189040**	**95**
Magnesium	**500000**	**505200**	**101**
Manganese		**1.51**	
Potassium		**40.4**	
Sodium		**51.5**	
Aluminum	*500000*	*508940*	*102*
Antimony		*-0.726*	
Arsenic		*-7.23*	
Barium		*0.0712*	
Beryllium		*0.256*	
Boron		*0.711*	
Cadmium		*1.16*	
Chromium		*2.48*	
Cobalt		*-4.38*	
Copper		*-5.83*	
Lead		*0.242*	
Lithium		*5.13*	
Molybdenum		*-1.38*	
Nickel		*-3.88*	
Selenium		*-1.80*	
Silicon		*11.4*	
Silver		*-3.96*	
Strontium		*10.2*	
Thallium		*7.31*	
Tin		*-0.481*	
Titanium		*-1.91*	
Vanadium		*0.288*	
Zinc		*-0.715*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICSAB 240-275842/9 Instrument ID: I12

Lab File ID: I12042217A.asc ICS Source: MTICPICSABW_00013

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**475580**	**95**
Iron	**200000**	**192800**	**96**
Magnesium	**500000**	**515210**	**103**
Manganese	**500**	**485**	**97**
Potassium	**10000**	**10570**	**106**
Sodium	**10000**	**10493**	**105**
Aluminum	*500000*	*518750*	*104*
Antimony	*1000*	*1007*	*101*
Arsenic	*1000*	*1018*	*102*
Barium	*500*	*503*	*101*
Beryllium	*500*	*479*	*96*
Boron	*500*	*522*	*104*
Cadmium	*1000*	*1042*	*104*
Chromium	*500*	*487*	*97*
Cobalt	*500*	*480*	*96*
Copper	*500*	*525*	*105*
Lead	*1000*	*948*	*95*
Lithium	*500*	*548*	*110*
Molybdenum	*1000*	*961*	*96*
Nickel	*1000*	*954*	*95*
Selenium	*1000*	*1010*	*101*
Silicon	*10000*	*9903*	*99*
Silver	*1000*	*1057*	*106*
Strontium	*1500*	*1433*	*96*
Thallium	*1000*	*977*	*98*
Tin	*500*	*492*	*98*
Titanium	*500*	*500*	*100*
Vanadium	*500*	*488*	*98*
Zinc	*1000*	*947*	*95*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICSA 240-276536/8 Instrument ID: I12

Lab File ID: I12042717A.asc ICS Source: MTTRICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**463200**	**93**
Iron	**200000**	**183960**	**92**
Magnesium	**500000**	**498490**	**100**
Manganese		**2.41**	
Potassium		**28.7**	
Sodium		**81.1**	
Aluminum	*500000*	*497270*	*99*
Antimony		*0.837*	
Arsenic		*-0.464*	
Barium		*0.267*	
Beryllium		*0.258*	
Boron		*2.35*	
Cadmium		*0.843*	
Chromium		*1.72*	
Cobalt		*-4.05*	
Copper		*-3.65*	
Lead		*2.85*	
Lithium		*4.93*	
Molybdenum		*-0.470*	
Nickel		*-3.87*	
Selenium		*0.471*	
Silicon		*1.49*	
Silver		*-1.78*	
Strontium		*11.1*	
Thallium		*8.03*	
Tin		*2.18*	
Titanium		*-1.37*	
Vanadium		*-1.61*	
Zinc		*0.180*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICSAB 240-276536/9 Instrument ID: I12

Lab File ID: I12042717A.asc ICS Source: MTICPICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**470880**	**94**
Iron	**200000**	**187740**	**94**
Magnesium	**500000**	**509710**	**102**
Manganese	**500**	**477**	**95**
Potassium	**10000**	**10261**	**103**
Sodium	**10000**	**10337**	**103**
Aluminum	*500000*	*507260*	*101*
Antimony	*1000*	*1002*	*100*
Arsenic	*1000*	*1002*	*100*
Barium	*500*	*496*	*99*
Beryllium	*500*	*474*	*95*
Boron	*500*	*515*	*103*
Cadmium	*1000*	*1024*	*102*
Chromium	*500*	*473*	*95*
Cobalt	*500*	*484*	*97*
Copper	*500*	*514*	*103*
Lead	*1000*	*912*	*91*
Lithium	*500*	*529*	*106*
Molybdenum	*1000*	*924*	*92*
Nickel	*1000*	*957*	*96*
Selenium	*1000*	*985*	*98*
Silicon	*10000*	*9834*	*98*
Silver	*1000*	*1036*	*104*
Strontium	*1500*	*1423*	*95*
Thallium	*1000*	*962*	*96*
Tin	*500*	*494*	*99*
Titanium	*500*	*485*	*97*
Vanadium	*500*	*478*	*96*
Zinc	*1000*	*961*	*96*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICSA 240-275816/8 Instrument ID: I9

Lab File ID: I9042117A.asc ICS Source: MTTRICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**468250**	**94**
Iron	**200000**	**185640**	**93**
Magnesium	**500000**	**500510**	**100**
Manganese		**1.56**	
Potassium		**-22.4**	
Sodium		**75.3**	
Aluminum	*500000*	*500240*	*100*
Antimony		*0.139*	
Arsenic		*2.24*	
Barium		*0.106*	
Beryllium		*0.0843*	
Boron		*-11.9*	
Cadmium		*-0.162*	
Chromium		*1.54*	
Cobalt		*-0.158*	
Copper		*-6.00*	
Lead		*3.06*	
Lithium		*7.05*	
Molybdenum		*-1.79*	
Nickel		*1.35*	
Selenium		*-3.76*	
Silicon		*-3.03*	
Silver		*-0.145*	
Strontium		*6.72*	
Thallium		*-0.372*	
Tin		*6.13*	
Titanium		*-0.660*	
Vanadium		*0.251*	
Zinc		*0.0190*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICSAB 240-275816/9 Instrument ID: I9

Lab File ID: I9042117A.asc ICS Source: MTICPICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**474610**	**95**
Iron	**200000**	**188350**	**94**
Magnesium	**500000**	**511230**	**102**
Manganese	**500**	**486**	**97**
Potassium	**10000**	**10328**	**103**
Sodium	**10000**	**10365**	**104**
Aluminum	*500000*	*505430*	*101*
Antimony	*1000*	*995*	*100*
Arsenic	*1000*	*1010*	*101*
Barium	*500*	*489*	*98*
Beryllium	*500*	*476*	*95*
Boron	*500*	*488*	*98*
Cadmium	*1000*	*1019*	*102*
Chromium	*500*	*476*	*95*
Cobalt	*500*	*506*	*101*
Copper	*500*	*512*	*102*
Lead	*1000*	*876*	*88*
Lithium	*500*	*534*	*107*
Molybdenum	*1000*	*913*	*91*
Nickel	*1000*	*1004*	*100*
Selenium	*1000*	*994*	*99*
Silicon	*10000*	*9858*	*99*
Silver	*1000*	*1065*	*106*
Strontium	*1500*	*1410*	*94*
Thallium	*1000*	*941*	*94*
Tin	*500*	*514*	*103*
Titanium	*500*	*488*	*98*
Vanadium	*500*	*474*	*95*
Zinc	*1000*	*1049*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICSA 240-276243/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0770**	
Arsenic		**0.0400**	
Barium		**0.0660**	
Beryllium		**0.0050**	
Cadmium		**-0.0010**	
Chromium		**0.683**	
Cobalt		**0.0000**	
Copper		**0.358**	
Iron	**50000**	**51498**	**103**
Lead		**0.128**	
Manganese		**0.177**	
Molybdenum	**1000**	**1036**	**104**
Nickel		**0.0790**	
Selenium		**0.0470**	
Silver		**0.0130**	
Thallium		**0.0050**	
Vanadium		**0.0540**	
Zinc		**0.357**	
Aluminum	*50000*	*50507*	*101*
Boron		*2.07*	
Calcium	*50000*	*51755*	*104*
Lithium		*-0.0590*	
Magnesium	*50000*	*51936*	*104*
Potassium	*50000*	*51444*	*103*
Sodium	*50000*	*51288*	*103*
Strontium		*0.298*	
Tin		*0.192*	
Titanium	*1000*	*1027*	*103*
Tungsten		*0.169*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICSAB 240-276243/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00077

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**102**	**102**
Arsenic	**100**	**100.0**	**100**
Barium	**100**	**101**	**101**
Beryllium	**100**	**110**	**110**
Cadmium	**100**	**100**	**100**
Chromium	**100**	**106**	**106**
Cobalt	**100**	**103**	**103**
Copper	**100**	**105**	**105**
Iron	**50000**	**52385**	**105**
Lead	**100**	**106**	**106**
Manganese	**100**	**104**	**104**
Molybdenum	**1100**	**1145**	**104**
Nickel	**100**	**105**	**105**
Selenium	**100**	**101**	**101**
Silver	**100**	**99.0**	**99**
Thallium	**100**	**106**	**106**
Vanadium	**100**	**105**	**105**
Zinc	**100**	**106**	**106**
Aluminum	*50000*	*50960*	*102*
Boron	*100*	*112*	*112*
Calcium	*50000*	*52044*	*104*
Lithium	*100*	*119*	*119*
Magnesium	*50000*	*52048*	*104*
Potassium	*50000*	*51309*	*103*
Sodium	*50000*	*51319*	*103*
Strontium	*100*	*98.5*	*98*
Tin	*100*	*104*	*104*
Titanium	*1100*	*1136*	*103*
Tungsten	*100*	*107*	*107*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICSA 240-276554/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00078

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Beryllium		**0.0040**	
Aluminum	*50000*	*51345*	*103*
Antimony		*0.0600*	
Arsenic		*0.0480*	
Barium		*0.0640*	
Boron		*0.918*	
Cadmium		*0.0050*	
Calcium	*50000*	*51456*	*103*
Chromium		*0.661*	
Cobalt		*0.0020*	
Copper		*0.353*	
Iron	*50000*	*50214*	*100*
Lead		*0.0740*	
Lithium		*-0.0540*	
Magnesium	*50000*	*50758*	*102*
Manganese		*0.305*	
Molybdenum	*1000*	*1031*	*103*
Nickel		*-0.0600*	
Potassium	*50000*	*51210*	*102*
Selenium		*-0.105*	
Silver		*0.0140*	
Sodium	*50000*	*51066*	*102*
Strontium		*0.345*	
Thallium		*-0.0020*	
Tin		*0.0690*	
Titanium	*1000*	*1025*	*103*
Tungsten		*0.160*	
Vanadium		*0.0040*	
Zinc		*0.123*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Lab Sample ID: ICSAB 240-276554/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00077

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Beryllium	**100**	**105**	**105**
Aluminum	*50000*	*51212*	*102*
Antimony	*100*	*101*	*101*
Arsenic	*100*	*101*	*101*
Barium	*100*	*103*	*103*
Boron	*100*	*109*	*109*
Cadmium	*100*	*102*	*102*
Calcium	*50000*	*51689*	*103*
Chromium	*100*	*106*	*106*
Cobalt	*100*	*105*	*105*
Copper	*100*	*106*	*106*
Iron	*50000*	*51329*	*103*
Lead	*100*	*107*	*107*
Lithium	*100*	*114*	*114*
Magnesium	*50000*	*51469*	*103*
Manganese	*100*	*102*	*102*
Molybdenum	*1100*	*1144*	*104*
Nickel	*100*	*107*	*107*
Potassium	*50000*	*51782*	*104*
Selenium	*100*	*101*	*101*
Silver	*100*	*98.3*	*98*
Sodium	*50000*	*51275*	*103*
Strontium	*100*	*97.0*	*97*
Thallium	*100*	*107*	*107*
Tin	*100*	*100*	*100*
Titanium	*1100*	*1121*	*102*
Tungsten	*100*	*105*	*105*
Vanadium	*100*	*104*	*104*
Zinc	*100*	*105*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MRC-MW48A-041917 MS
Lab ID: 240-78379-4 MS
Lab Name: TestAmerica Canton
Job No.: 240-78295-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.701		0.13	U	1.00	70	80-120	F1	7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW48A-041917 MS
Lab ID: 240-78379-4 MS
Lab Name: TestAmerica Canton
Job No.: 240-78295-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	53300		1800	J	50000	103	75-125		6010C
Iron	87300		84000		1000	288	75-125	4	6010C
Potassium	52700		330	J	50000	105	75-125		6010C
Magnesium	66700		14000		50000	105	75-125		6010C
Manganese	11900		11000		500	121	75-125	4	6010C
Sodium	105000		51000		50000	108	75-125		6010C
SiO2, Silica	18100		15000		2140	140	75-125	4	6010C
Antimony	102		0.43	J	100	101	75-125		6020A
Arsenic	1000		2.9	J	1000	100	75-125		6020A
Barium	1190		150		1000	104	75-125		6020A
Beryllium	1170		2.3		1000	117	75-125		6020A
Cadmium	1060		0.31	U	1000	106	75-125		6020A
Cobalt	1220		130		1000	109	75-125		6020A
Chromium	1050		0.38	J	1000	105	75-125		6020A
Copper	1070		0.43	J	1000	107	75-125		6020A
Iron	95800		86000		10000	102	75-125	4	6020A
Molybdenum	103		0.51	U	100	103	75-125		6020A
Nickel	1100		34		1000	107	75-125		6020A
Lead	1010		0.41	J	1000	101	75-125		6020A
Selenium	931		1.3	J	1000	93	75-125		6020A
Thallium	251		0.28	U	250	100	75-125		6020A
Vanadium	1040		0.54	U	1000	104	75-125		6020A
Zinc	1010		6.2	U	1000	101	75-125		6020A
Silver	103		0.030	U	100	103	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-78291-G-1-B MS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	113000		62000		50000	101	75-125		6010C
Iron	5590		4300		1000	126	75-125	4	6010C
Potassium	57200		5700		50000	103	75-125		6010C
Magnesium	83400		32000		50000	104	75-125		6010C
Manganese	565		51		500	103	75-125		6010C
Sodium	59400		7900		50000	103	75-125		6010C
SiO2, Silica	41000		30000		2140	504	75-125	4	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 240-78291-G-1-G MS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.09		0.13	U	1.00	109	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-78561-C-1-C MS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	71900		22000		50000	100	75-125		6010C
Iron	1180		230		1000	95	75-125		6010C
Potassium	56700		5500		50000	102	75-125		6010C
Magnesium	57200		7100		50000	100	75-125		6010C
Manganese	532		28		500	101	75-125		6010C
SiO2, Silica	13500		11000		2140	112	75-125	4	6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MRC-MW48A-041917 MSD
Lab ID: 240-78379-4 MSD
Lab Name: TestAmerica Canton
Job No.: 240-78295-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.602		1.00	60	80-120	15	20	F1	7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MRC-MW48A-041917 MSD | Lab ID: 240-78379-4 MSD

Lab Name: TestAmerica Canton | Job No.: 240-78295-1

SDG No.:

Matrix: Water | Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	52900		50000	102	75-125	1	20		6010C
Iron	87300		1000	284	75-125	0	20	4	6010C
Potassium	52000		50000	103	75-125	1	20		6010C
Magnesium	65900		50000	104	75-125	1	20		6010C
Manganese	11900		500	110	75-125	0	20	4	6010C
Sodium	104000		50000	105	75-125	1	20		6010C
SiO2, Silica	18000		2140	137	75-125	0	20	4	6010C
Antimony	101		100	100	75-125	1	20		6020A
Arsenic	995		1000	99	75-125	1	20		6020A
Barium	1150		1000	100	75-125	4	20		6020A
Beryllium	1100		1000	110	75-125	6	20		6020A
Cadmium	1040		1000	104	75-125	3	20		6020A
Cobalt	1180		1000	105	75-125	4	20		6020A
Chromium	1040		1000	103	75-125	1	20		6020A
Copper	1040		1000	104	75-125	3	20		6020A
Iron	94100		10000	85	75-125	2	20	4	6020A
Molybdenum	101		100	101	75-125	2	20		6020A
Nickel	1080		1000	105	75-125	2	20		6020A
Lead	980		1000	98	75-125	3	20		6020A
Selenium	924		1000	92	75-125	1	20		6020A
Thallium	243		250	97	75-125	3	20		6020A
Vanadium	1030		1000	103	75-125	2	20		6020A
Zinc	997		1000	100	75-125	1	20		6020A
Silver	102		100	102	75-125	1	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-78291-G-1-C MSD

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	112000		50000	100	75-125	1	20		6010C
Iron	5450		1000	113	75-125	2	20	4	6010C
Potassium	56800		50000	102	75-125	1	20		6010C
Magnesium	82800		50000	102	75-125	1	20		6010C
Manganese	559		500	102	75-125	1	20		6010C
Sodium	58800		50000	102	75-125	1	20		6010C
SiO2, Silica	39800		2140	451	75-125	3	20	4	6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 240-78291-G-1-H MSD

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	1.05		1.00	105	80-120	4	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 240-78561-C-1-D MSD

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	72700		50000	102	75-125	1	20		6010C
Iron	1200		1000	97	75-125	2	20		6010C
Potassium	57400		50000	104	75-125	1	20		6010C
Magnesium	58000		50000	102	75-125	1	20		6010C
Manganese	544		500	103	75-125	2	20		6010C
SiO2, Silica	13700		2140	121	75-125	1	20	4	6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-275590/2-A

Lab Name: TestAmerica Canton Job No.: 240-78295-1

Sample Matrix: Water LCS Source: MTICP2A_00070

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	49100		98	80	120		6010C
Iron	1000	991		99	80	120		6010C
Potassium	50000	48200		96	80	120		6010C
Magnesium	50000	48600		97	80	120		6010C
Manganese	500	495		99	80	120		6010C
Sodium	50000	48600		97	80	120		6010C
SiO2, Silica	2140	2280		106	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-275710/2-A

Lab Name: TestAmerica Canton Job No.: 240-78295-1

Sample Matrix: Water LCS Source: MTICP2A_00070

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	53700		107	80	120		6010C
Iron	1000	996		100	80	120		6010C
Potassium	50000	53600		107	80	120		6010C
Magnesium	50000	53900		108	80	120		6010C
Manganese	500	509		102	80	120		6010C
Sodium	50000	52800		106	80	120		6010C
SiO2, Silica	2140	2500		117	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-276308/2-A

Lab Name: TestAmerica Canton Job No.: 240-78295-1

Sample Matrix: Water LCS Source: MTICP2A_00070

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	51500		103	80	120		6010C
Iron	1000	942		94	80	120		6010C
Potassium	50000	49700		99	80	120		6010C
Magnesium	50000	51800		104	80	120		6010C
Manganese	500	520		104	80	120		6010C
Sodium	50000	50000		100	80	120		6010C
SiO2, Silica	2140	2380		111	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-275590/3-A

Lab Name: TestAmerica Canton Job No.: 240-78295-1

Sample Matrix: Water LCS Source: MTICPMSB_00031

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	97.9		98	80	120		6020A
Arsenic	1000	980		98	80	120		6020A
Barium	1000	978		98	80	120		6020A
Beryllium	1000	1130		113	80	120		6020A
Cadmium	1000	1060		106	80	120		6020A
Cobalt	1000	1070		107	80	120		6020A
Chromium	1000	1030		103	80	120		6020A
Copper	1000	1050		105	80	120		6020A
Iron	10000	10100		101	80	120		6020A
Molybdenum	100	93.8		94	80	120		6020A
Manganese	1000	998		100	80	120		6020A
Nickel	1000	1050		105	80	120		6020A
Lead	1000	996		100	80	120		6020A
Selenium	1000	942		94	80	120		6020A
Thallium	250	246		98	80	120		6020A
Vanadium	1000	1010		101	80	120		6020A
Zinc	1000	1040		104	80	120		6020A
Silver	100	98.1		98	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-275710/3-A

Lab Name: TestAmerica Canton Job No.: 240-78295-1

Sample Matrix: Water LCS Source: MTICPMSB_00031

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	103		103	80	120		6020A
Arsenic	1000	1050		105	80	120		6020A
Barium	1000	1030		103	80	120		6020A
Cadmium	1000	1100		110	80	120		6020A
Cobalt	1000	1110		111	80	120		6020A
Chromium	1000	1080		108	80	120		6020A
Copper	1000	1120		112	80	120		6020A
Iron	10000	10700		107	80	120		6020A
Molybdenum	100	103		103	80	120		6020A
Manganese	1000	1060		106	80	120		6020A
Nickel	1000	1120		112	80	120		6020A
Lead	1000	1040		104	80	120		6020A
Selenium	1000	1000		100	80	120		6020A
Thallium	250	260		104	80	120		6020A
Vanadium	1000	1060		106	80	120		6020A
Zinc	1000	1090		109	80	120		6020A
Silver	100	105		105	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-275710/3-A

Lab Name: TestAmerica Canton Job No.: 240-78295-1

Sample Matrix: Water LCS Source: MTICPMSA_00031

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Beryllium	1000	1200		120	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-275593/2-A

Lab Name: TestAmerica Canton Job No.: 240-78295-1

Sample Matrix: Water LCS Source: MTHGCALW_01484

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.87		97	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-275712/2-A

Lab Name: TestAmerica Canton Job No.: 240-78295-1

Sample Matrix: Water LCS Source: MTHGCALW_01485

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.85		97	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-78379-4

SDG No:

Lab Name: TestAmerica Canton Job No: 240-78295-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	1800	J	3600	U	NC		6010C
Iron	84000		85300		0.99		6010C
Potassium	330	J	350	U	NC		6010C
Magnesium	14000		14200	J	0.82		6010C
Manganese	11000		12200		7.2		6010C
Sodium	51000		50000		2.2		6010C
SiO2, Silica	15000		15100		0.07		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Sample not included in this SDG

Lab ID: 240-78291-G-1-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-78295-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	62000		64200		3.8		6010C
Iron	4300		4530		4.8		6010C
Potassium	5700		6150	J	8.0		6010C
Magnesium	32000		33900		7.0		6010C
Manganese	51		53.5	J	NC		6010C
Sodium	7900		8100	J	NC		6010C
SiO2, Silica	30000		33700		11	V	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-78561-C-1-B SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-78295-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	22000		22500	J	NC		6010C
Iron	230		239	J	NC		6010C
Potassium	5500		5430	J	1.7		6010C
Magnesium	7100		7360	J	NC		6010C
Manganese	28		28.2	J	NC		6010C
SiO2, Silica	11000		11400		2.7		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-78379-4

SDG No:

Lab Name: TestAmerica Canton Job No: 240-78295-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.43	J	1.4	U	NC		6020A
Arsenic	2.9	J	2.93	J	NC		6020A
Barium	150		145		NC		6020A
Beryllium	2.3		2.12	J	NC		6020A
Cadmium	0.31	U	1.6	U	NC		6020A
Cobalt	130		135		3.3		6020A
Chromium	0.38	J	1.3	U	NC		6020A
Copper	0.43	J	1.8	U	NC		6020A
Iron	86000		87200		1.9		6020A
Molybdenum	0.51	U	2.6	U	NC		6020A
Nickel	34		34.9		NC		6020A
Lead	0.41	J	0.910	J	NC		6020A
Selenium	1.3	J	2.4	U	NC		6020A
Thallium	0.28	U	1.4	U	NC		6020A
Vanadium	0.54	U	2.7	U	NC		6020A
Zinc	6.2	U	31	U	NC		6020A
Silver	0.030	U	0.15	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	710
Iron	271.441	100	25
Magnesium	279.078	5000	230
Manganese	257.610	15	5.1
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	710
Iron	271.441	100	25
Magnesium	279.078	5000	230
Manganese	257.610	15	5.1
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C MDL Date: 05/06/2016 13:42

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	710
Iron	271.441	100	25
Magnesium	279.078	5000	230
Manganese	257.610	15	5.1
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: I9

Method: 6010C XMDL Date: 05/06/2016 13:44

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	710
Iron	271.441	100	25
Magnesium	279.078	5000	230
Manganese	257.610	15	5.1
Potassium	766.491	5000	70
SiO2, Silica	251.6	1070	140
Sodium	330.232	5000	330

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 12/13/2016 11:36

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.27
Arsenic	75.00	5	0.35
Barium	137.00	5	0.52
Beryllium	9.00	1	0.4
Cadmium	111.00	1	0.31
Chromium	52.00	2	0.26
Cobalt	59.00	1	0.13
Copper	65.00	2	0.36
Lead	208.00	1	0.16
Molybdenum	95.00	10	0.51
Nickel	60.00	2	0.28
Selenium	78.00	5	0.48
Silver	107.00	1	0.03
Thallium	205.00	1	0.28
Vanadium	51.00	5	0.54
Zinc	66.00	20	6.22

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 09/15/2014 17:03

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.16
Arsenic	75.00	5	0.49
Barium	137.00	5	1.1
Beryllium	9.00	1	0.053
Cadmium	111.00	1	0.061
Chromium	52.00	2	0.6
Cobalt	59.00	1	0.021
Copper	65.00	2	0.75
Lead	208.00	1	0.11
Molybdenum	95.00	10	0.23
Nickel	60.00	2	0.23
Selenium	78.00	5	0.25
Silver	107.00	1	0.02
Thallium	205.00	1	0.074
Vanadium	51.00	5	0.23
Zinc	66.00	20	7.3

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 01/20/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.030656				0.066045	
Antimony		-0.000064			-0.000244			-0.000054						0.002941	
Arsenic		0.000016			-0.000333	0.000782			-0.000355	0.002123					
Beryllium														0.000282	
Cadmium			0.01262					0.000002							
Chromium									0.000453						
Cobalt													0.001895		
Copper				0.000018	0.000361			-0.000017					-0.003237		
Lead		-0.000086					0.000101	0.000044			0.000131	0.00004			
Lithium				0.000011											
Nickel					0.000518			0.000081							
Selenium		-0.00002							0.000338						
Thallium		0.000022			0.002708			-0.000025	0.000571					0.001707	
Vanadium								0.000067							
Zinc						-0.001092									

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG No.:

ICP-AES Instrument ID: I9 Date: 02/13/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	Tl	V
Aluminum										0.029315					0.096009
Antimony		-0.000073			-0.000451			-0.000051							0.002146
Arsenic		0.000034			-0.00051	0.000538			-0.000355	0.001291					
Barium															
Beryllium															0.0000165
Boron															
Cadmium			0.006886					0.000001							
Calcium															
Chromium															
Cobalt													0.002313		
Copper				0.000018	0.000453			-0.000001					-0.000463		
Iron													-		
Lead		-0.000122					0.000515	0.000028			0.00007657	0.000088			
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel					0.000799			0.000075							
Potassium															
Selenium		-0.000010							0.000643						
Silver															
Sodium															
Strontium															
Thallium		-0.000010			0.001132			0.000007	0.001101				-0.000497		-0.0005212
Tin															
Titanium															
Vanadium								0.000032							
Zinc						-0.000286									

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-78295-1

SDG No.:

Instrument ID: I12 Date: 01/24/2017 12:29

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		800000	6010C
Iron		500000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Manganese		15000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-78295-1

SDG No.:

Instrument ID: I9 Date: 08/22/2016 11:36

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		800000	6010C
Iron		500000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Manganese		15000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-78295-1

SDG No.:

Instrument ID: I10 Date: 04/19/2017 14:43

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Arsenic		10000	6020A
Barium		10000	6020A
Beryllium		2000	6020A
Cadmium		4000	6020A
Cobalt		5000	6020A
Chromium		10000	6020A
Copper		10000	6020A
Molybdenum		2000	6020A
Nickel		10000	6020A
Lead		4000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Vanadium		10000	6020A
Zinc		10000	6020A
Silver		300	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-275590/1-A	04/20/2017 14:30	275590		50	50
LCS 240-275590/2-A	04/20/2017 14:30	275590		50	50
240-78291-G-1-B MS	04/20/2017 14:30	275590		50	50
240-78291-G-1-C MSD	04/20/2017 14:30	275590		50	50
240-78295-2	04/20/2017 14:30	275590		50	50
240-78295-5	04/20/2017 14:30	275590		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-275710/1-A	04/21/2017 14:00	275710		50	50
LCS 240-275710/2-A	04/21/2017 14:00	275710		50	50
240-78379-4	04/21/2017 14:00	275710		50	50
240-78379-4 MS	04/21/2017 14:00	275710		50	50
240-78379-4 MSD	04/21/2017 14:00	275710		50	50
240-78379-2	04/21/2017 14:00	275710		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-276308/1-A	04/26/2017 14:00	276308		50	50
LCS 240-276308/2-A	04/26/2017 14:00	276308		50	50
240-78561-C-1-C MS	04/26/2017 14:00	276308		50	50
240-78561-C-1-D MSD	04/26/2017 14:00	276308		50	50
240-78519-2	04/26/2017 14:00	276308		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-275590/1-A	04/20/2017 14:30	275590		50	50
LCS 240-275590/3-A	04/20/2017 14:30	275590		50	50
240-78295-2	04/20/2017 14:30	275590		50	50
240-78295-5	04/20/2017 14:30	275590		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-275710/1-A	04/21/2017 14:00	275710		50	50
LCS 240-275710/3-A	04/21/2017 14:00	275710		50	50
240-78379-4	04/21/2017 14:00	275710		50	50
240-78379-4 MS	04/21/2017 14:00	275710		50	50
240-78379-4 MSD	04/21/2017 14:00	275710		50	50
240-78379-2	04/21/2017 14:00	275710		50	50
240-78379-3	04/21/2017 14:00	275710		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-275593/1-A	04/20/2017 14:30	275593		50	50
LCS 240-275593/2-A	04/20/2017 14:30	275593		50	50
240-78291-G-1-G MS	04/20/2017 14:30	275593		50	50
240-78291-G-1-H MSD	04/20/2017 14:30	275593		50	50
240-78295-2	04/20/2017 14:30	275593		50	50
240-78295-5	04/20/2017 14:30	275593		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-275712/1-A	04/21/2017 14:00	275712		50	50
LCS 240-275712/2-A	04/21/2017 14:00	275712		50	50
240-78379-4	04/21/2017 14:00	275712		50	50
240-78379-4 MS	04/21/2017 14:00	275712		50	50
240-78379-4 MSD	04/21/2017 14:00	275712		50	50
240-78379-2	04/21/2017 14:00	275712		50	50
240-78379-3	04/21/2017 14:00	275712		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/22/2017 12:18 End Date: 04/23/2017 06:03

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	K	Mg	Mn	Na	SiO2																				
ICIS 240-275842/1	1		12:18	X	X	X	X	X	X	X																				
CALSTD 240-275842/2 IC			12:22	X	X	X	X	X	X	X																				
CALSTD 240-275842/3 IC			12:27	X	X	X	X	X	X	X																				
ICV 240-275842/4	1		12:31	X	X	X	X	X	X	X																				
ICB 240-275842/5	1		12:36	X	X	X	X	X	X	X																				
ICVL 240-275842/6	1		12:40	X	X	X	X	X	X	X																				
ZZZZZZ			12:45																											
ICSA 240-275842/8	1		12:49	X	X	X	X	X	X																					
ICSAB 240-275842/9	1		12:54	X	X	X	X	X	X																					
CCV 240-275842/10			12:58																											
CCB 240-275842/11			13:02																											
ZZZZZZ			13:07																											
ZZZZZZ			13:11																											
ZZZZZZ			13:16																											
ZZZZZZ			13:21																											
ZZZZZZ			13:25																											
ZZZZZZ			13:30																											
CCV 240-275842/18	1		13:34	X	X	X	X	X	X	X																				
CCB 240-275842/19	1		13:38	X	X	X	X	X	X	X																				
MB 240-275710/1-A	1	R	13:49	X	X	X	X	X	X	X																				
ZZZZZZ			13:54																											
240-78379-4	1	R	13:58	X	X	X	X	X	X	X																				
240-78379-4 SD	5	R	14:02	X	X	X	X	X	X	X																				
ZZZZZZ			14:07																											
240-78379-4 MS	1	R	14:11	X	X	X	X	X	X	X																				
240-78379-4 MSD	1	R	14:15	X	X	X	X	X	X	X																				
240-78379-2	1	R	14:20	X	X	X	X	X	X	X																				
ZZZZZZ			14:24																											
ZZZZZZ			14:29																											
CCV 240-275842/30	1		14:33	X	X	X	X	X	X	X																				
CCB 240-275842/31	1		14:37	X	X	X	X	X	X	X																				
ZZZZZZ			14:42																											
ZZZZZZ			14:47																											
ZZZZZZ			14:51																											
LCS 240-275710/2-A	1	R	14:55	X	X	X	X	X	X	X																				
ZZZZZZ			14:59																											
ZZZZZZ			15:04																											
ZZZZZZ			15:09																											
ZZZZZZ			15:13																											
ZZZZZZ			15:17																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/22/2017 12:18 End Date: 04/23/2017 06:03

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	K	Mg	Mn	Na	SiO2																				
ZZZZZZ			15:21																											
CCV 240-275842/42	1		15:26	X	X	X	X	X	X	X																				
CCB 240-275842/43	1		15:30	X	X	X	X	X	X	X																				
ZZZZZZ			15:35																											
ZZZZZZ			15:39																											
ZZZZZZ			15:44																											
ZZZZZZ			15:48																											
ZZZZZZ			15:54																											
ZZZZZZ			15:58																											
ZZZZZZ			16:03																											
ZZZZZZ			16:08																											
CCVL 240-275842/52	1		16:12	X	X	X	X	X	X	X																				
ZZZZZZ			16:17																											
CCV 240-275842/54			16:21																											
CCB 240-275842/55			16:25																											
ZZZZZZ			16:30																											
ZZZZZZ			16:34																											
ZZZZZZ			16:39																											
ZZZZZZ			16:43																											
ZZZZZZ			16:47																											
ZZZZZZ			16:52																											
ZZZZZZ			16:56																											
ZZZZZZ			17:01																											
ZZZZZZ			17:06																											
ZZZZZZ			17:10																											
CCV 240-275842/66			17:15																											
CCB 240-275842/67			17:19																											
ZZZZZZ			17:24																											
ZZZZZZ			17:28																											
ZZZZZZ			17:33																											
ZZZZZZ			17:37																											
ZZZZZZ			17:42																											
ZZZZZZ			17:47																											
ZZZZZZ			17:51																											
ZZZZZZ			17:56																											
ZZZZZZ			18:01																											
ZZZZZZ			18:05																											
CCV 240-275842/78			18:10																											
CCB 240-275842/79			18:14																											
CCVL 240-275842/80			18:18																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/22/2017 12:18 End Date: 04/23/2017 06:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	Fe	K	Mg	Mn	Na	SiO2																		
ICSA 240-275842/81			18:23																									
ICSAB 240-275842/82			18:27																									
ZZZZZZ			18:32																									
ZZZZZZ			18:36																									
ZZZZZZ			18:41																									
ZZZZZZ			18:45																									
ZZZZZZ			18:50																									
ZZZZZZ			18:55																									
ZZZZZZ			18:59																									
CCV 240-275842/90			19:04																									
CCB 240-275842/91			19:08																									
ZZZZZZ			19:12																									
ZZZZZZ			19:17																									
CCVL 240-275842/94			19:21																									
ZZZZZZ			19:26																									
ZZZZZZ			19:30																									
ZZZZZZ			19:35																									
ZZZZZZ			19:40																									
ZZZZZZ			19:44																									
ZZZZZZ			19:49																									
ZZZZZZ			19:53																									
CCV 240-275842/102			19:58																									
CCB 240-275842/103			20:02																									
ZZZZZZ			20:07																									
ZZZZZZ			20:11																									
ZZZZZZ			20:16																									
ZZZZZZ			20:20																									
ZZZZZZ			20:25																									
ZZZZZZ			20:29																									
ZZZZZZ			20:34																									
ZZZZZZ			20:38																									
ZZZZZZ			20:43																									
ZZZZZZ			20:48																									
CCV 240-275842/114			20:52																									
CCB 240-275842/115			20:56																									
ZZZZZZ			21:01																									
ZZZZZZ			21:06																									
ZZZZZZ			21:10																									
ZZZZZZ			21:15																									
ZZZZZZ			21:20																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/22/2017 12:18 End Date: 04/23/2017 06:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			21:24																										
ZZZZZZ			21:29																										
ZZZZZZ			21:33																										
ZZZZZZ			21:38																										
ZZZZZZ			21:42																										
CCV 240-275842/126			21:46																										
CCB 240-275842/127			21:51																										
ZZZZZZ			21:55																										
ZZZZZZ			21:59																										
ZZZZZZ			22:04																										
ZZZZZZ			22:08																										
ZZZZZZ			22:13																										
ZZZZZZ			22:17																										
ZZZZZZ			22:22																										
ZZZZZZ			22:26																										
ZZZZZZ			22:31																										
ZZZZZZ			22:35																										
CCV 240-275842/138			22:40																										
CCB 240-275842/139			22:44																										
ZZZZZZ			22:48																										
ZZZZZZ			22:53																										
ZZZZZZ			22:57																										
ZZZZZZ			23:02																										
ZZZZZZ			23:06																										
ZZZZZZ			23:10																										
ZZZZZZ			23:14																										
ZZZZZZ			23:19																										
ZZZZZZ			23:23																										
ZZZZZZ			23:28																										
CCV 240-275842/150			23:32																										
CCB 240-275842/151			23:36																										
ZZZZZZ			23:41																										
ZZZZZZ			23:45																										
ZZZZZZ			23:50																										
ZZZZZZ			23:54																										
ZZZZZZ			23:59																										
ZZZZZZ			00:03																										
ZZZZZZ			00:08																										
ZZZZZZ			00:13																										
ZZZZZZ			00:18																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/22/2017 12:18 End Date: 04/23/2017 06:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			00:22																										
CCV 240-275842/162			00:27																										
CCB 240-275842/163			00:31																										
ZZZZZZ			00:36																										
ZZZZZZ			00:40																										
ZZZZZZ			00:44																										
ZZZZZZ			00:49																										
ZZZZZZ			00:53																										
ZZZZZZ			00:57																										
ZZZZZZ			01:01																										
ZZZZZZ			01:06																										
ZZZZZZ			01:11																										
ZZZZZZ			01:15																										
CCV 240-275842/174			01:20																										
CCB 240-275842/175			01:24																										
ZZZZZZ			01:28																										
ZZZZZZ			01:33																										
ZZZZZZ			01:37																										
ZZZZZZ			01:42																										
ZZZZZZ			01:47																										
ZZZZZZ			01:51																										
ZZZZZZ			01:56																										
ZZZZZZ			02:00																										
ZZZZZZ			02:05																										
ZZZZZZ			02:09																										
CCV 240-275842/186			02:14																										
CCB 240-275842/187			02:18																										
ZZZZZZ			02:23																										
ZZZZZZ			02:28																										
ZZZZZZ			02:32																										
ZZZZZZ			02:37																										
ZZZZZZ			02:41																										
ZZZZZZ			02:46																										
ZZZZZZ			02:50																										
ZZZZZZ			02:54																										
ZZZZZZ			02:59																										
ZZZZZZ			03:04																										
CCV 240-275842/198			03:08																										
CCB 240-275842/199			03:12																										
ZZZZZZ			03:16																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/22/2017 12:18 End Date: 04/23/2017 06:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			03:21																										
ZZZZZZ			03:25																										
ZZZZZZ			03:29																										
ZZZZZZ			03:34																										
ZZZZZZ			03:38																										
ZZZZZZ			03:43																										
ZZZZZZ			03:47																										
ZZZZZZ			03:52																										
ZZZZZZ			03:56																										
CCV 240-275842/210			04:01																										
CCB 240-275842/211			04:05																										
ZZZZZZ			04:09																										
ZZZZZZ			04:14																										
ZZZZZZ			04:19																										
ZZZZZZ			04:23																										
ZZZZZZ			04:28																										
ZZZZZZ			04:32																										
ZZZZZZ			04:37																										
ZZZZZZ			04:41																										
ZZZZZZ			04:46																										
ZZZZZZ			04:50																										
CCV 240-275842/222			04:55																										
CCB 240-275842/223			04:59																										
ZZZZZZ			05:03																										
ZZZZZZ			05:08																										
ZZZZZZ			05:12																										
ZZZZZZ			05:17																										
ZZZZZZ			05:22																										
ZZZZZZ			05:26																										
ZZZZZZ			05:31																										
ZZZZZZ			05:35																										
ZZZZZZ			05:40																										
ZZZZZZ			05:45																										
CCV 240-275842/234			05:50																										
CCB 240-275842/235			05:54																										
CCV 240-275842/236			05:58																										
CCB 240-275842/237			06:03																										

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/27/2017 08:32 End Date: 04/28/2017 07:41

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	K	Mg	Mn	Na	SiO2																				
ICIS 240-276536/1	1		08:32	X	X	X	X	X	X	X																				
CALSTD 240-276536/2 IC			08:36	X	X	X	X	X	X	X																				
CALSTD 240-276536/3 IC			08:41	X	X	X	X	X	X	X																				
ICV 240-276536/4	1		08:46	X	X	X	X	X	X	X																				
ICB 240-276536/5	1		08:50	X	X	X	X	X	X	X																				
ICVL 240-276536/6	1		08:54	X	X	X	X	X	X	X																				
ZZZZZZ			08:59																											
ICSA 240-276536/8	1		09:03	X	X	X	X	X	X																					
ICSAB 240-276536/9	1		09:08	X	X	X	X	X	X																					
CCV 240-276536/10			09:12																											
CCB 240-276536/11			09:16																											
ZZZZZZ			09:21																											
ZZZZZZ			09:26																											
ZZZZZZ			09:30																											
ZZZZZZ			09:35																											
ZZZZZZ			09:39																											
ZZZZZZ			09:44																											
CCV 240-276536/18			09:49																											
CCB 240-276536/19			09:53																											
ZZZZZZ			09:58																											
ZZZZZZ			10:02																											
ZZZZZZ			10:07																											
ZZZZZZ			10:11																											
ZZZZZZ			10:16																											
ZZZZZZ			10:20																											
ZZZZZZ			10:25																											
ZZZZZZ			10:29																											
ZZZZZZ			10:33																											
ZZZZZZ			10:37																											
CCV 240-276536/30			10:42																											
CCB 240-276536/31			10:46																											
ZZZZZZ			10:51																											
ZZZZZZ			10:55																											
ZZZZZZ			11:00																											
ZZZZZZ			11:04																											
ZZZZZZ			11:09																											
ZZZZZZ			11:13																											
ZZZZZZ			11:18																											
ZZZZZZ			11:22																											
ZZZZZZ			11:27																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/27/2017 08:32 End Date: 04/28/2017 07:41

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	K	Mg	Mn	Na	SiO2																				
CCVL 240-276536/41			11:31																											
CCV 240-276536/42			11:36																											
CCB 240-276536/43			11:40																											
ZZZZZZ			11:45																											
ZZZZZZ			11:49																											
ZZZZZZ			11:53																											
ZZZZZZ			11:58																											
CCV 240-276536/48	1		12:02	X	X	X	X	X	X	X																				
CCB 240-276536/49	1		12:06	X	X	X	X	X	X	X																				
MB 240-276308/1-A	1	R	12:12	X	X	X	X	X	X	X																				
LCS 240-276308/2-A	1	R	12:17	X	X	X	X	X	X	X																				
ZZZZZZ			12:21																											
240-78561-C-1-B SD ^5	5	R	12:26	X	X	X	X	X		X																				
ZZZZZZ			12:30																											
240-78561-C-1-C MS	1	R	12:35	X	X	X	X	X		X																				
240-78561-C-1-D MSD	1	R	12:39	X	X	X	X	X		X																				
ZZZZZZ			12:43																											
ZZZZZZ			12:48																											
ZZZZZZ			12:52																											
CCV 240-276536/60	1		12:57	X	X	X	X	X	X	X																				
CCB 240-276536/61	1		13:01	X	X	X	X	X	X	X																				
240-78519-2	1	R	13:05	X	X	X	X	X	X	X																				
ZZZZZZ			13:10																											
ZZZZZZ			13:14																											
ZZZZZZ			13:19																											
ZZZZZZ			13:23																											
ZZZZZZ			13:28																											
ZZZZZZ			13:32																											
ZZZZZZ			13:37																											
ZZZZZZ			13:41																											
ZZZZZZ			13:46																											
CCV 240-276536/72	1		13:50	X	X	X	X	X	X	X																				
CCB 240-276536/73	1		13:54	X	X	X	X	X	X	X																				
ZZZZZZ			13:59																											
ZZZZZZ			14:03																											
ZZZZZZ			14:07																											
ZZZZZZ			14:12																											
ZZZZZZ			14:16																											
ZZZZZZ			14:21																											
ZZZZZZ			14:25																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/27/2017 08:32 End Date: 04/28/2017 07:41

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	K	Mg	Mn	Na	SiO2																				
ZZZZZZ			14:30																											
CCVL 240-276536/82	1		14:34	X	X	X	X	X	X	X																				
ZZZZZZ			14:39																											
CCV 240-276536/84			14:43																											
CCB 240-276536/85			14:48																											
ZZZZZZ			14:52																											
ZZZZZZ			14:57																											
ZZZZZZ			15:01																											
ZZZZZZ			15:06																											
ZZZZZZ			15:11																											
ZZZZZZ			15:15																											
ZZZZZZ			15:20																											
ZZZZZZ			15:25																											
ZZZZZZ			15:29																											
ZZZZZZ			15:34																											
CCV 240-276536/96			15:38																											
CCB 240-276536/97			15:42																											
ZZZZZZ			15:47																											
ZZZZZZ			15:52																											
ZZZZZZ			15:56																											
ZZZZZZ			16:01																											
ZZZZZZ			16:05																											
ZZZZZZ			16:10																											
ZZZZZZ			16:14																											
ZZZZZZ			16:19																											
ZZZZZZ			16:23																											
ZZZZZZ			16:28																											
CCV 240-276536/108			16:32																											
CCB 240-276536/109			16:36																											
ZZZZZZ			16:41																											
ZZZZZZ			16:45																											
ZZZZZZ			16:50																											
ZZZZZZ			16:54																											
ZZZZZZ			16:59																											
CCVL 240-276536/115			17:03																											
ZZZZZZ			17:08																											
ZZZZZZ			17:13																											
ZZZZZZ			17:17																											
ZZZZZZ			17:21																											
CCV 240-276536/120			17:26																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/27/2017 08:32 End Date: 04/28/2017 07:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	Fe	K	Mg	Mn	Na	SiO2																		
CCB 240-276536/121			17:30																									
ZZZZZZ			17:34																									
ZZZZZZ			17:39																									
ZZZZZZ			17:43																									
ZZZZZZ			17:47																									
ZZZZZZ			17:52																									
ZZZZZZ			17:56																									
ZZZZZZ			18:00																									
ZZZZZZ			18:05																									
ZZZZZZ			18:09																									
ZZZZZZ			18:14																									
CCV 240-276536/132			18:18																									
CCB 240-276536/133			18:23																									
ZZZZZZ			18:27																									
ZZZZZZ			18:32																									
ZZZZZZ			18:36																									
ZZZZZZ			18:40																									
ZZZZZZ			18:45																									
ZZZZZZ			18:49																									
ZZZZZZ			18:54																									
ZZZZZZ			18:58																									
ZZZZZZ			19:03																									
ZZZZZZ			19:07																									
CCV 240-276536/144			19:11																									
CCB 240-276536/145			19:15																									
ZZZZZZ			19:20																									
ZZZZZZ			19:25																									
ZZZZZZ			19:29																									
ZZZZZZ			19:33																									
ZZZZZZ			19:38																									
ZZZZZZ			19:42																									
ZZZZZZ			19:46																									
ZZZZZZ			19:51																									
ZZZZZZ			19:55																									
ZZZZZZ			20:00																									
CCV 240-276536/156			20:04																									
CCB 240-276536/157			20:08																									
ZZZZZZ			20:13																									
ZZZZZZ			20:17																									
ZZZZZZ			20:22																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/27/2017 08:32 End Date: 04/28/2017 07:41

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			20:26																										
ZZZZZZ			20:31																										
ZZZZZZ			20:35																										
ZZZZZZ			20:40																										
ZZZZZZ			20:45																										
ZZZZZZ			20:49																										
ZZZZZZ			20:54																										
CCV 240-276536/168			20:59																										
CCB 240-276536/169			21:03																										
ZZZZZZ			21:07																										
ZZZZZZ			21:12																										
ZZZZZZ			21:17																										
ZZZZZZ			21:21																										
ZZZZZZ			21:25																										
ZZZZZZ			21:30																										
ZZZZZZ			21:34																										
ZZZZZZ			21:38																										
ZZZZZZ			21:42																										
ZZZZZZ			21:47																										
CCV 240-276536/180			21:51																										
CCB 240-276536/181			21:55																										
ZZZZZZ			22:00																										
ZZZZZZ			22:04																										
ZZZZZZ			22:09																										
ZZZZZZ			22:13																										
ZZZZZZ			22:18																										
ZZZZZZ			22:22																										
ZZZZZZ			22:27																										
ZZZZZZ			22:31																										
ZZZZZZ			22:36																										
CCVL 240-276536/191			22:40																										
CCV 240-276536/192			22:45																										
CCB 240-276536/193			22:49																										
ZZZZZZ			22:54																										
ZZZZZZ			22:58																										
ZZZZZZ			23:02																										
ZZZZZZ			23:07																										
ZZZZZZ			23:11																										
ZZZZZZ			23:16																										
ZZZZZZ			23:20																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/27/2017 08:32 End Date: 04/28/2017 07:41

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			23:24																										
ZZZZZZ			23:29																										
ZZZZZZ			23:33																										
CCV 240-276536/204			23:37																										
CCB 240-276536/205			23:41																										
ZZZZZZ			23:46																										
ZZZZZZ			23:50																										
ZZZZZZ			23:55																										
ZZZZZZ			00:00																										
ZZZZZZ			00:05																										
ZZZZZZ			00:09																										
ZZZZZZ			00:14																										
ZZZZZZ			00:18																										
ZZZZZZ			00:23																										
ZZZZZZ			00:28																										
CCV 240-276536/216			00:32																										
CCB 240-276536/217			00:36																										
ZZZZZZ			00:41																										
ZZZZZZ			00:45																										
ZZZZZZ			00:50																										
ZZZZZZ			00:54																										
ZZZZZZ			00:59																										
ZZZZZZ			01:03																										
ZZZZZZ			01:08																										
ZZZZZZ			01:13																										
ZZZZZZ			01:17																										
ZZZZZZ			01:22																										
CCV 240-276536/228			01:27																										
CCB 240-276536/229			01:31																										
ZZZZZZ			01:36																										
ZZZZZZ			01:40																										
ZZZZZZ			01:45																										
ZZZZZZ			01:50																										
ZZZZZZ			01:54																										
ZZZZZZ			01:58																										
ZZZZZZ			02:03																										
ZZZZZZ			02:07																										
ZZZZZZ			02:12																										
ZZZZZZ			02:16																										
CCV 240-276536/240			02:20																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/27/2017 08:32 End Date: 04/28/2017 07:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	Fe	K	Mg	Mn	Na	SiO2																		
CCB 240-276536/241			02:24																									
ZZZZZZ			02:29																									
ZZZZZZ			02:33																									
ZZZZZZ			02:38																									
ZZZZZZ			02:42																									
ZZZZZZ			02:47																									
ZZZZZZ			02:51																									
ZZZZZZ			02:56																									
ZZZZZZ			03:00																									
ZZZZZZ			03:04																									
ZZZZZZ			03:09																									
CCV 240-276536/252			03:14																									
CCB 240-276536/253			03:18																									
ZZZZZZ			03:22																									
ZZZZZZ			03:27																									
ZZZZZZ			03:32																									
ZZZZZZ			03:36																									
ZZZZZZ			03:41																									
ZZZZZZ			03:45																									
ZZZZZZ			03:50																									
ZZZZZZ			03:55																									
ZZZZZZ			03:59																									
ZZZZZZ			04:04																									
CCV 240-276536/264			04:08																									
CCB 240-276536/265			04:12																									
ZZZZZZ			04:17																									
ZZZZZZ			04:21																									
ZZZZZZ			04:25																									
ZZZZZZ			04:30																									
ZZZZZZ			04:34																									
ZZZZZZ			04:38																									
ZZZZZZ			04:42																									
ZZZZZZ			04:47																									
ZZZZZZ			04:51																									
ZZZZZZ			04:56																									
CCV 240-276536/276			05:00																									
CCB 240-276536/277			05:04																									
ZZZZZZ			05:09																									
ZZZZZZ			05:13																									
ZZZZZZ			05:18																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 04/27/2017 08:32 End Date: 04/28/2017 07:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	Fe	K	Mg	Mn	Na	SiO2																		
ZZZZZZ			05:22																									
CCV 240-276536/282			05:26																									
CCB 240-276536/283			05:31																									
CCV 240-276536/284			07:18																									
CCB 240-276536/285			07:23																									
ZZZZZZ			07:27																									
CCVL 240-276536/287			07:33																									
CCV 240-276536/288			07:37																									
CCB 240-276536/289			07:41																									

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	K	Mg	Mn	Na	SiO2																				
ICIS 240-275816/1	1		11:09	X	X	X	X	X	X	X																				
CALSTD 240-275816/2 IC			11:14	X	X	X	X	X	X	X																				
CALSTD 240-275816/3 IC			11:18	X	X	X	X	X	X	X																				
ICV 240-275816/4	1		11:22	X	X	X	X	X	X	X																				
ICB 240-275816/5	1		11:26	X	X	X	X	X	X	X																				
ICVL 240-275816/6	1		11:31	X	X	X	X	X	X	X																				
ZZZZZZ			11:35																										
ICSA 240-275816/8	1		11:39	X	X	X	X	X	X																					
ICSAB 240-275816/9	1		11:44	X	X	X	X	X	X																					
CCV 240-275816/10			11:48																										
CCB 240-275816/11			11:52																										
ZZZZZZ			11:56																										
ZZZZZZ			12:00																										
ZZZZZZ			12:05																										
ZZZZZZ			12:09																										
ZZZZZZ			12:14																										
ZZZZZZ			12:18																										
CCV 240-275816/18	1		12:22	X	X	X	X	X	X	X																				
CCB 240-275816/19	1		12:26	X	X	X	X	X	X	X																				
MB 240-275590/1-A	1	R	12:44	X	X	X	X	X	X	X																				
LCS 240-275590/2-A	1	R	12:48	X	X	X	X	X	X	X																				
ZZZZZZ			12:52																										
240-78291-G-1-A SD ^5	5	R	12:57	X	X	X	X	X	X	X																				
240-78291-G-1-B MS	1	R	13:01	X	X	X	X	X	X	X																				
240-78291-G-1-C MSD	1	R	13:05	X	X	X	X	X	X	X																				
ZZZZZZ			13:09																										
ZZZZZZ			13:13																										
ZZZZZZ			13:17																										
240-78295-2	1	R	13:21	X	X	X	X	X	X	X																				
CCV 240-275816/30	1		13:26	X	X	X	X	X	X	X																				
CCB 240-275816/31	1		13:30	X	X	X	X	X	X	X																				
240-78295-5	1	R	13:34	X	X	X	X	X	X	X																				
ZZZZZZ			13:39																										
ZZZZZZ			13:43																										
ZZZZZZ			13:47																										
ZZZZZZ			13:52																										
ZZZZZZ			13:56																										
ZZZZZZ			14:00																										
ZZZZZZ			14:05																										
ZZZZZZ			14:09																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	Fe	K	Mg	Mn	Na	SiO2																				
ZZZZZZ			14:14																											
CCV 240-275816/42	1		14:18	X	X	X	X	X	X	X																				
CCB 240-275816/43	1		14:22	X	X	X	X	X	X	X																				
ZZZZZZ			14:27																											
ZZZZZZ			14:31																											
ZZZZZZ			14:36																											
ZZZZZZ			14:40																											
ZZZZZZ			14:45																											
ZZZZZZ			14:49																											
ZZZZZZ			14:53																											
ZZZZZZ			14:57																											
ZZZZZZ			15:01																											
ZZZZZZ			15:05																											
CCV 240-275816/54			15:09																											
CCB 240-275816/55			15:13																											
ZZZZZZ			15:18																											
ZZZZZZ			15:22																											
ZZZZZZ			15:26																											
ZZZZZZ			15:31																											
ZZZZZZ			15:35																											
ZZZZZZ			15:40																											
CCV 240-275816/62			15:44																											
CCB 240-275816/63			15:48																											
CCVL 240-275816/64	1		15:52	X	X	X	X	X	X	X																				
ICSA 240-275816/65			15:57																											
CCV 240-275816/66			16:01																											
CCB 240-275816/67			16:05																											
ICSAB 240-275816/68			16:10																											
ZZZZZZ			16:14																											
ZZZZZZ			16:18																											
ZZZZZZ			16:23																											
ZZZZZZ			16:27																											
ZZZZZZ			16:32																											
ZZZZZZ			16:36																											
ZZZZZZ			16:40																											
ZZZZZZ			16:45																											
ZZZZZZ			16:50																											
CCV 240-275816/78			16:54																											
CCB 240-275816/79			16:58																											
ZZZZZZ			17:02																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			17:07																										
CCVL 240-275816/82			17:11																										
ZZZZZZ			17:15																										
ZZZZZZ			17:19																										
ZZZZZZ			17:24																										
ZZZZZZ			17:28																										
ZZZZZZ			17:33																										
ZZZZZZ			17:37																										
ZZZZZZ			17:41																										
CCV 240-275816/90			17:45																										
CCB 240-275816/91			17:49																										
ZZZZZZ			17:54																										
ZZZZZZ			17:58																										
ZZZZZZ			18:02																										
ZZZZZZ			18:06																										
ZZZZZZ			18:10																										
ZZZZZZ			18:14																										
ZZZZZZ			18:18																										
ZZZZZZ			18:22																										
ZZZZZZ			18:27																										
ZZZZZZ			18:31																										
CCV 240-275816/102			18:35																										
CCB 240-275816/103			18:39																										
ZZZZZZ			18:44																										
ZZZZZZ			18:48																										
ZZZZZZ			18:52																										
ZZZZZZ			18:57																										
ZZZZZZ			19:01																										
ZZZZZZ			19:05																										
ZZZZZZ			19:10																										
ZZZZZZ			19:14																										
ZZZZZZ			19:18																										
ZZZZZZ			19:23																										
CCV 240-275816/114			19:27																										
CCB 240-275816/115			19:31																										
ZZZZZZ			19:35																										
ZZZZZZ			19:39																										
ZZZZZZ			19:44																										
ZZZZZZ			19:48																										
ZZZZZZ			19:53																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			19:57																										
ZZZZZZ			20:01																										
ZZZZZZ			20:05																										
ZZZZZZ			20:10																										
ZZZZZZ			20:13																										
CCV 240-275816/126			20:17																										
CCB 240-275816/127			20:21																										
ZZZZZZ			20:26																										
ZZZZZZ			20:30																										
ZZZZZZ			20:34																										
ZZZZZZ			20:38																										
ZZZZZZ			20:43																										
ZZZZZZ			20:47																										
ZZZZZZ			20:51																										
ZZZZZZ			20:56																										
ZZZZZZ			21:00																										
ZZZZZZ			21:04																										
CCV 240-275816/138			21:08																										
CCB 240-275816/139			21:12																										
ZZZZZZ			21:16																										
ZZZZZZ			21:21																										
ZZZZZZ			21:25																										
ZZZZZZ			21:30																										
ZZZZZZ			21:34																										
ZZZZZZ			21:38																										
ZZZZZZ			21:43																										
ZZZZZZ			21:47																										
ZZZZZZ			21:51																										
ZZZZZZ			21:56																										
CCV 240-275816/150			22:00																										
CCB 240-275816/151			22:04																										
ZZZZZZ			22:08																										
ZZZZZZ			22:13																										
ZZZZZZ			22:17																										
ZZZZZZ			22:22																										
ZZZZZZ			22:26																										
ZZZZZZ			22:30																										
ZZZZZZ			22:35																										
ZZZZZZ			22:40																										
ZZZZZZ			22:44																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			22:48																										
CCV 240-275816/162			22:53																										
CCB 240-275816/163			22:57																										
ZZZZZZ			23:01																										
ZZZZZZ			23:05																										
ZZZZZZ			23:10																										
ZZZZZZ			23:14																										
ZZZZZZ			23:18																										
ZZZZZZ			23:23																										
ZZZZZZ			23:28																										
ZZZZZZ			23:32																										
ZZZZZZ			23:37																										
ZZZZZZ			23:42																										
CCV 240-275816/174			23:46																										
CCB 240-275816/175			23:50																										
ZZZZZZ			23:54																										
ZZZZZZ			23:59																										
ZZZZZZ			00:03																										
ZZZZZZ			00:07																										
ZZZZZZ			00:12																										
ZZZZZZ			00:16																										
ZZZZZZ			00:20																										
ZZZZZZ			00:24																										
ZZZZZZ			00:29																										
ZZZZZZ			00:33																										
CCV 240-275816/186			00:37																										
CCB 240-275816/187			00:41																										
ZZZZZZ			00:45																										
ZZZZZZ			00:50																										
ZZZZZZ			00:54																										
ZZZZZZ			00:58																										
ZZZZZZ			01:02																										
ZZZZZZ			01:06																										
ZZZZZZ			01:10																										
ZZZZZZ			01:15																										
ZZZZZZ			01:19																										
ZZZZZZ			01:23																										
CCV 240-275816/198			01:28																										
CCB 240-275816/199			01:32																										
ZZZZZZ			01:36																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I9 Analysis Method: 6010C

Start Date: 04/21/2017 11:09 End Date: 04/22/2017 02:45

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	Fe	K	Mg	Mn	Na	SiO2																			
ZZZZZZ			01:40																										
ZZZZZZ			01:45																										
ZZZZZZ			01:49																										
ZZZZZZ			01:53																										
ZZZZZZ			01:58																										
ZZZZZZ			02:02																										
ZZZZZZ			02:06																										
ZZZZZZ			02:11																										
ZZZZZZ			02:15																										
CCV 240-275816/210			02:19																										
CCB 240-275816/211			02:23																										
ZZZZZZ			02:28																										
ZZZZZZ			02:32																										
ZZZZZZ			02:36																										
CCV 240-275816/215			02:41																										
CCB 240-275816/216			02:45																										

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/25/2017 10:31 End Date: 04/25/2017 19:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			10:31																									
ICIS 240-276243/2			10:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-276243/3 IC	1		10:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-276243/4 IC	1		10:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-276243/5 IC	1		10:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-276243/6 IC	1		10:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-276243/7	1		10:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-276243/8	1		11:01	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ICVL 240-276243/9	1		11:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-276243/10	1		11:09	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X								
ICSAB 240-276243/11	1		11:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-276243/12			11:18																									
CCB 240-276243/13			11:22																									
ZZZZZZ			11:28																									
ZZZZZZ			11:32																									
ZZZZZZ			11:36																									
CCV 240-276243/17			11:40																									
CCB 240-276243/18			11:45																									
ZZZZZZ			11:49																									
ZZZZZZ			11:57																									
CCV 240-276243/21			12:01																									
CCB 240-276243/22			12:05																									
ZZZZZZ			12:13																									
ZZZZZZ			12:17																									
ZZZZZZ			12:21																									
ZZZZZZ			12:25																									
ZZZZZZ			12:30																									
CCV 240-276243/28			12:34																									
CCB 240-276243/29			12:38																									
ZZZZZZ			12:42																									
ZZZZZZ			12:46																									
ZZZZZZ			12:51																									
ZZZZZZ			12:55																									
ZZZZZZ			12:58																									
ZZZZZZ			13:02																									
ZZZZZZ			13:07																									
ZZZZZZ			13:11																									
ZZZZZZ			13:15																									
ZZZZZZ			13:19																									
CCV 240-276243/40			13:23																									
CCB 240-276243/41			13:27																									
ZZZZZZ			13:32																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/25/2017 10:31 End Date: 04/25/2017 19:44

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			13:36																										
ZZZZZZ			13:40																										
ZZZZZZ			13:44																										
ZZZZZZ			13:48																										
ZZZZZZ			13:52																										
ZZZZZZ			13:57																										
CCV 240-276243/49			14:01																										
CCB 240-276243/50			14:05																										
ZZZZZZ			14:09																										
ZZZZZZ			14:13																										
ZZZZZZ			14:17																										
ZZZZZZ			14:22																										
CCV 240-276243/55			14:26																										
CCB 240-276243/56			14:30																										
ZZZZZZ			14:34																										
ZZZZZZ			14:38																										
ZZZZZZ			14:42																										
ZZZZZZ			14:47																										
ZZZZZZ			14:51																										
ZZZZZZ			14:55																										
ZZZZZZ			14:59																										
ZZZZZZ			15:03																										
ZZZZZZ			15:07																										
ZZZZZZ			15:11																										
CCV 240-276243/67			15:15																										
CCB 240-276243/68			15:19																										
ZZZZZZ			15:24																										
ZZZZZZ			15:28																										
ZZZZZZ			15:32																										
ZZZZZZ			15:36																										
ZZZZZZ			15:41																										
ZZZZZZ			15:45																										
ZZZZZZ			15:49																										
ZZZZZZ			15:53																										
ZZZZZZ			15:58																										
ZZZZZZ			16:02																										
CCV 240-276243/79	1		16:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-276243/80	1		16:10	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			16:14																										
ZZZZZZ			16:19																										
ZZZZZZ			16:23																										
ZZZZZZ			16:27																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/25/2017 10:31 End Date: 04/25/2017 19:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			16:31																									
ZZZZZZ			16:36																									
MB 240-275590/1-A	1	R	16:40	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
LCS 240-275590/3-A	1	R	16:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-78295-2	1	R	16:48	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
240-78295-5	1	R	16:52	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
CCV 240-276243/91	1		16:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-276243/92	1		17:01	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
CCVL 240-276243/93	1		17:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			17:09																									
CCV 240-276243/95	1		17:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-276243/96	1		17:18	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
MB 240-275710/1-A	1	R	17:22	X	X	X		X	X	X	X			X	X	X	X	X	X	X	X							
LCS 240-275710/3-A	1	R	17:26	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-78379-4	1	R	17:30	X	X	X		X	X	X	X			X	X	X	X	X	X	X	X							
240-78379-4 SD	5	R	17:34	X	X	X		X	X	X	X			X	X	X	X	X	X	X	X							
ZZZZZZ			17:38																									
240-78379-4 MS	1	R	17:42	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-78379-4 MSD	1	R	17:46	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X							
240-78379-2	1	R	17:50	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
240-78379-3	1	R	17:55	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
ZZZZZZ			17:59																									
CCV 240-276243/107	1		18:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-276243/108	1		18:07	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X							
ZZZZZZ			18:11																									
ZZZZZZ			18:16																									
CCV 240-276243/111			18:20																									
CCB 240-276243/112			18:24																									
CCVL 240-276243/113	1		18:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			18:33																									
ZZZZZZ			18:37																									
ZZZZZZ			18:41																									
ZZZZZZ			18:45																									
ZZZZZZ			18:49																									
ZZZZZZ			18:54																									
ZZZZZZ			18:58																									
ZZZZZZ			19:02																									
ZZZZZZ			19:06																									
CCV 240-276243/123			19:11																									
CCB 240-276243/124			19:15																									
ZZZZZZ			19:19																									
ZZZZZZ			19:23																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/25/2017 10:31 End Date: 04/25/2017 19:44

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			19:28																											
ZZZZZZ			19:32																											
ZZZZZZ			19:36																											
CCV 240-276243/130			19:40																											
CCB 240-276243/131			19:44																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/27/2017 09:05 End Date: 04/27/2017 12:52

Lab Sample Id	D/F	Type	Time	Analytes
				Be
ZZZZZZ			09:05	
ICIS 240-276554/2			09:09	X
STD1 240-276554/3 IC	1		09:13	X
STD2 240-276554/4 IC	1		09:18	X
STD3 240-276554/5 IC	1		09:22	X
STD4 240-276554/6 IC	1		09:26	X
ICV 240-276554/7	1		09:30	X
ICB 240-276554/8	1		09:34	X
ICVL 240-276554/9	1		09:39	X
ICSA 240-276554/10	1		09:43	X
ICSAB 240-276554/11	1		09:47	X
CCV 240-276554/12			09:51	
CCB 240-276554/13			09:56	
CCV 240-276554/14			10:06	
CCB 240-276554/15			10:10	
ZZZZZZ			10:15	
ZZZZZZ			10:19	
ZZZZZZ			10:23	
CCV 240-276554/19			10:27	
CCB 240-276554/20			10:31	
ZZZZZZ			10:35	
CCV 240-276554/22	1		10:39	X
CCB 240-276554/23	1		10:44	X
MB 240-275710/1-A	1	R	10:48	X
LCS 240-275710/3-A	1	R	10:52	X
ZZZZZZ			10:56	
CCV 240-276554/27	1		11:00	X
CCB 240-276554/28	1		11:04	X
240-78379-4	1	R	11:09	X
240-78379-4 SD	5	R	11:13	X
ZZZZZZ			11:17	
240-78379-4 MS	1	R	11:21	X
240-78379-4 MSD	1	R	11:25	X
CCV 240-276554/34	1		11:29	X
CCB 240-276554/35	1		11:33	X
CCVL 240-276554/36	1		11:38	X
ZZZZZZ			11:42	
ZZZZZZ			11:46	
ZZZZZZ			11:50	
ZZZZZZ			11:54	
ZZZZZZ			11:58	
ZZZZZZ			12:02	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 04/27/2017 09:05 End Date: 04/27/2017 12:52

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			12:06																									
ZZZZZZ			12:10																									
ZZZZZZ			12:14																									
CCV 240-276554/46			12:18																									
CCB 240-276554/47			12:23																									
ZZZZZZ			12:27																									
ZZZZZZ			12:31																									
ZZZZZZ			12:35																									
ZZZZZZ			12:40																									
ZZZZZZ			12:44																									
CCV 240-276554/53			12:48																									
CCB 240-276554/54			12:52																									

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/21/2017 11:58 End Date: 04/21/2017 17:49

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-275677/1-A			11:58	X
IC 240-275677/2-A			12:00	X
IC 240-275677/3-A			12:02	X
IC 240-275677/4-A			12:04	X
IC 240-275677/5-A			12:06	X
IC 240-275677/6-A			12:08	X
ICV 240-275677/7-A	1		12:39	X
ICB 240-275677/8-A	1		12:40	X
ZZZZZZ			12:43	
CRA 240-275677/9-A	1		12:45	X
CCV 240-275677/10-A			12:47	
CCB 240-275677/11-A			12:49	
ZZZZZZ			12:52	
ZZZZZZ			12:54	
ZZZZZZ			12:55	
ZZZZZZ			12:57	
ZZZZZZ			13:00	
ZZZZZZ			13:02	
ZZZZZZ			13:04	
ZZZZZZ			13:07	
ZZZZZZ			13:09	
ZZZZZZ			13:11	
CCV 240-275677/10-A	1		13:13	X
CCB 240-275677/11-A	1		13:14	X
ZZZZZZ			13:17	
ZZZZZZ			13:19	
ZZZZZZ			13:21	
ZZZZZZ			13:23	
ZZZZZZ			13:25	
ZZZZZZ			13:27	
ZZZZZZ			13:29	
ZZZZZZ			13:30	
MB 240-275593/1-A	1	T	13:32	X
LCS 240-275593/2-A	1	T	13:34	X
CCV 240-275677/10-A	1		13:36	X
CCB 240-275677/11-A	1		13:39	X
ZZZZZZ			13:41	
240-78291-G-1-G MS	1	T	13:43	X
240-78291-G-1-H MSD	1	T	13:45	X
ZZZZZZ			13:47	
ZZZZZZ			13:50	
ZZZZZZ			13:51	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/21/2017 11:58 End Date: 04/21/2017 17:49

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			13:53																									
ZZZZZZ			13:55																									
ZZZZZZ			13:57																									
ZZZZZZ			13:59																									
CCV 240-275677/10-A	1		14:01	X																								
CCB 240-275677/11-A	1		14:03	X																								
240-78295-2	1	T	14:06	X																								
240-78295-5	1	T	14:07	X																								
ZZZZZZ			14:09																									
ZZZZZZ			14:11																									
ZZZZZZ			14:13																									
ZZZZZZ			14:15																									
ZZZZZZ			14:17																									
ZZZZZZ			14:19																									
ZZZZZZ			14:21																									
ZZZZZZ			14:23																									
CCV 240-275677/10-A	1		14:25	X																								
CCB 240-275677/11-A	1		14:28	X																								
ZZZZZZ			14:30																									
ZZZZZZ			14:32																									
ZZZZZZ			14:35																									
ZZZZZZ			14:37																									
ZZZZZZ			14:39																									
ZZZZZZ			14:41																									
ZZZZZZ			14:43																									
ZZZZZZ			14:45																									
ZZZZZZ			14:47																									
ZZZZZZ			14:49																									
CCV 240-275677/10-A			14:51																									
CCB 240-275677/11-A			14:53																									
ZZZZZZ			14:56																									
ZZZZZZ			14:58																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:03																									
ZZZZZZ			15:05																									
ZZZZZZ			15:11																									
ZZZZZZ			15:13																									
ZZZZZZ			15:15																									
ZZZZZZ			15:17																									
CCV 240-275677/10-A			15:19																									
CCB 240-275677/11-A			15:21																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/21/2017 11:58 End Date: 04/21/2017 17:49

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			15:24																									
ZZZZZZ			15:25																									
ZZZZZZ			15:28																									
ZZZZZZ			15:30																									
ZZZZZZ			15:32																									
ZZZZZZ			15:34																									
ZZZZZZ			15:36																									
ZZZZZZ			15:37																									
ZZZZZZ			15:39																									
ZZZZZZ			15:41																									
CCV 240-275677/10-A			15:43																									
CCB 240-275677/11-A			15:45																									
ZZZZZZ			15:48																									
ZZZZZZ			15:50																									
ZZZZZZ			15:52																									
ZZZZZZ			15:54																									
ZZZZZZ			15:56																									
ZZZZZZ			15:58																									
ZZZZZZ			16:00																									
ZZZZZZ			16:02																									
CCV 240-275677/10-A			16:04																									
CCB 240-275677/11-A			16:06																									
CCV 240-275677/10-A			16:15																									
CCB 240-275677/11-A			16:17																									
ZZZZZZ			16:20																									
ZZZZZZ			16:22																									
ZZZZZZ			16:25																									
ZZZZZZ			16:27																									
ZZZZZZ			16:30																									
CCV 240-275677/10-A			16:32																									
CCB 240-275677/11-A			16:35																									
CCV 240-275677/10-A			16:37																									
CCB 240-275677/11-A			16:39																									
ZZZZZZ			16:43																									
CCV 240-275677/10-A			16:45																									
CCB 240-275677/11-A			16:46																									
CCV 240-275677/10-A			17:33																									
CCB 240-275677/11-A			17:35																									
ZZZZZZ			17:37																									
ZZZZZZ			17:39																									
ZZZZZZ			17:41																									
ZZZZZZ			17:43																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/21/2017 11:58 End Date: 04/21/2017 17:49

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			17:45																									
CCV 240-275677/10-A			17:47																									
CCB 240-275677/11-A			17:49																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/24/2017 11:52 End Date: 04/24/2017 16:52

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-275889/1-A			11:52	X																								
IC 240-275889/2-A			11:54	X																								
IC 240-275889/3-A			11:56	X																								
IC 240-275889/4-A			11:58	X																								
IC 240-275889/5-A			12:00	X																								
IC 240-275889/6-A			12:02	X																								
ICV 240-275889/7-A	1		12:05	X																								
ICB 240-275889/8-A	1		12:07	X																								
CRA 240-275889/9-A	1		12:10	X																								
ZZZZZZ			12:12																									
ZZZZZZ			12:14																									
ZZZZZZ			12:16																									
ZZZZZZ			12:18																									
ZZZZZZ			12:20																									
ZZZZZZ			12:22																									
ZZZZZZ			12:24																									
ZZZZZZ			12:26																									
ZZZZZZ			12:29																									
ZZZZZZ			12:31																									
ZZZZZZ			12:33																									
CCV 240-275889/10-A			12:35																									
CCB 240-275889/11-A			12:37																									
ZZZZZZ			12:40																									
ZZZZZZ			12:42																									
ZZZZZZ			12:44																									
ZZZZZZ			12:45																									
ZZZZZZ			12:47																									
ZZZZZZ			12:49																									
ZZZZZZ			12:51																									
ZZZZZZ			12:53																									
ZZZZZZ			12:55																									
ZZZZZZ			12:57																									
CCV 240-275889/10-A			12:59																									
CCB 240-275889/11-A			13:01																									
CCV 240-275889/10-A			13:26																									
CCB 240-275889/11-A			13:27																									
ZZZZZZ			13:30																									
CCV 240-275889/10-A			13:55																									
CCB 240-275889/11-A			13:56																									
ZZZZZZ			13:59																									
ZZZZZZ			14:01																									
ZZZZZZ			14:03																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/24/2017 11:52 End Date: 04/24/2017 16:52

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			14:05																									
ZZZZZZ			14:07																									
ZZZZZZ			14:09																									
ZZZZZZ			14:11																									
ZZZZZZ			14:13																									
ZZZZZZ			14:16																									
CCV 240-275889/10-A			14:18																									
CCB 240-275889/11-A			14:20																									
ZZZZZZ			14:23																									
ZZZZZZ			14:25																									
CCV 240-275889/10-A			14:27																									
CCB 240-275889/11-A			14:29																									
ZZZZZZ			14:31																									
ZZZZZZ			14:34																									
ZZZZZZ			14:36																									
ZZZZZZ			14:38																									
ZZZZZZ			14:40																									
ZZZZZZ			14:42																									
ZZZZZZ			14:44																									
ZZZZZZ			14:46																									
CCV 240-275889/10-A			14:48																									
CCB 240-275889/11-A			14:50																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
ZZZZZZ			14:56																									
ZZZZZZ			14:58																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
ZZZZZZ			15:06																									
ZZZZZZ			15:08																									
ZZZZZZ			15:10																									
CCV 240-275889/10-A			15:11																									
CCB 240-275889/11-A			15:14																									
ZZZZZZ			15:16																									
ZZZZZZ			15:18																									
ZZZZZZ			15:20																									
ZZZZZZ			15:22																									
ZZZZZZ			15:24																									
ZZZZZZ			15:26																									
ZZZZZZ			15:28																									
ZZZZZZ			15:30																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/24/2017 11:52 End Date: 04/24/2017 16:52

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			15:33																									
ZZZZZZ			15:35																									
CCV 240-275889/10-A	1		15:37	X																								
CCB 240-275889/11-A	1		15:39	X																								
ZZZZZZ			15:42																									
ZZZZZZ			15:44																									
ZZZZZZ			15:45																									
ZZZZZZ			15:47																									
ZZZZZZ			15:49																									
MB 240-275712/1-A	1	T	15:51	X																								
LCS 240-275712/2-A	1	T	15:53	X																								
240-78379-4	1	T	15:55	X																								
240-78379-4 MS	1	T	15:58	X																								
240-78379-4 MSD	1	T	15:59	X																								
CCV 240-275889/10-A	1		16:02	X																								
CCB 240-275889/11-A	1		16:04	X																								
ZZZZZZ			16:06																									
ZZZZZZ			16:08																									
ZZZZZZ			16:10																									
ZZZZZZ			16:12																									
ZZZZZZ			16:14																									
ZZZZZZ			16:16																									
ZZZZZZ			16:18																									
ZZZZZZ			16:20																									
ZZZZZZ			16:22																									
ZZZZZZ			16:24																									
CCV 240-275889/10-A	1		16:26	X																								
CCB 240-275889/11-A	1		16:28	X																								
ZZZZZZ			16:30																									
240-78379-2	1	T	16:32	X																								
240-78379-3	1	T	16:34	X																								
ZZZZZZ			16:36																									
ZZZZZZ			16:38																									
ZZZZZZ			16:40																									
ZZZZZZ			16:42																									
ZZZZZZ			16:44																									
ZZZZZZ			16:46																									
ZZZZZZ			16:48																									
CCV 240-275889/10-A	1		16:50	X																								
CCB 240-275889/11-A	1		16:52	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 04/24/2017 11:52 End Date: 04/24/2017 16:52

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								

Prep Types:
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/25/2017 End Date: 04/25/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-276243/3 I	10:40	99		100		100		97		100	
STD2 240-276243/4 I	10:44	102		102		103		96		99	
STD3 240-276243/5 I	10:48	105		103		105		95		99	
STD4 240-276243/6 I	10:52	103		103		103		104		105	
ICV 240-276243/7	10:57	106		105		105		100		104	
ICB 240-276243/8	11:01	109		106		108		106		109	
ICVL 240-276243/9	11:05	108		107		108		106		110	
ICSA 240-276243/10	11:09	99		95		97		91		95	
ICSAB 240-276243/11	11:13	95		93		97		92		94	
CCV 240-276243/79	16:06	96		96		106		97		97	
CCB 240-276243/80	16:10	98		96		108		104		101	
MB 240-275590/1-A	16:40	88		85		100		95		90	
LCS 240-275590/3-A	16:44	83		83		97		91		85	
240-78295-2	16:48	88		86		103		86		85	
240-78295-5	16:52	94		88		106		97		91	
CCV 240-276243/91	16:57	100		98		112		99		98	
CCB 240-276243/92	17:01	101		98		110		104		102	
CCVL 240-276243/93	17:05	100		98		110		102		101	
CCV 240-276243/95	17:13	100		103		111		99		101	
CCB 240-276243/96	17:18	102		102		111		105		104	
MB 240-275710/1-A	17:22	91		92		106		99		95	
LCS 240-275710/3-A	17:26	93		91		108		95		92	
240-78379-4	17:30	97		95		113		98		94	
240-78379-4 SD	17:34	102		102		115		107		105	
240-78379-4 MS	17:42	89		89		105		91		87	
240-78379-4 MSD	17:46	87		87		103		90		85	
240-78379-2	17:50	90		87		105		91		88	
240-78379-3	17:55	92		91		107		96		92	
CCV 240-276243/107	18:03	102		102		116		102		100	
CCB 240-276243/108	18:07	101		103		116		108		107	
CCVL 240-276243/113	18:28	100		101		112		107		103	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/25/2017 End Date: 04/25/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-276243/3 I	10:40	99		100		100					
STD2 240-276243/4 I	10:44	101		100		97					
STD3 240-276243/5 I	10:48	101		100		94					
STD4 240-276243/6 I	10:52	104		104		103					
ICV 240-276243/7	10:57	103		102		99					
ICB 240-276243/8	11:01	105		105		104					
ICVL 240-276243/9	11:05	104		105		105					
ICSA 240-276243/10	11:09	93		93		93					
ICSAB 240-276243/11	11:13	94		92		93					
CCV 240-276243/79	16:06	100		99		95					
CCB 240-276243/80	16:10	101		101		100					
MB 240-275590/1-A	16:40	95		96		96					
LCS 240-275590/3-A	16:44	93		93		92					
240-78295-2	16:48	92		93		83					
240-78295-5	16:52	98		97		96					
CCV 240-276243/91	16:57	101		100		95					
CCB 240-276243/92	17:01	101		103		99					
CCVL 240-276243/93	17:05	100		101		99					
CCV 240-276243/95	17:13	101		102		94					
CCB 240-276243/96	17:18	102		104		100					
MB 240-275710/1-A	17:22	99		99		102					
LCS 240-275710/3-A	17:26	98		98		95					
240-78379-4	17:30	100		100		94					
240-78379-4 SD	17:34	106		106		103					
240-78379-4 MS	17:42	95		96		89					
240-78379-4 MSD	17:46	93		94		88					
240-78379-2	17:50	94		96		90					
240-78379-3	17:55	97		98		94					
CCV 240-276243/107	18:03	103		103		96					
CCB 240-276243/108	18:07	106		105		103					
CCVL 240-276243/113	18:28	104		103		102					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/27/2017 End Date: 04/27/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-276554/3 I	09:13	95		101		89		101		99	
STD2 240-276554/4 I	09:18	102		102		103		99		99	
STD3 240-276554/5 I	09:22	106		104		104		96		101	
STD4 240-276554/6 I	09:26	103		106		104		107		105	
ICV 240-276554/7	09:30	110		108		110		103		106	
ICB 240-276554/8	09:34	112		112		111		111		110	
ICVL 240-276554/9	09:39	114		112		111		111		110	
ICSA 240-276554/10	09:43	99		98		100		96		96	
ICSAB 240-276554/11	09:47	95		94		97		94		94	
CCV 240-276554/22	10:39	95		97		99		98		97	
CCB 240-276554/23	10:44	97		97		99		102		100	
MB 240-275710/1-A	10:48	95		91		99		98		92	
LCS 240-275710/3-A	10:52	95		91		97		95		91	
CCV 240-276554/27	11:00	110		109		113		106		106	
CCB 240-276554/28	11:04	112		111		112		111		109	
240-78379-4	11:09	98		95		100		93		90	
240-78379-4 SD	11:13	101		101		104		104		101	
240-78379-4 MS	11:21	89		88		93		89		84	
240-78379-4 MSD	11:25	87		86		93		88		84	
CCV 240-276554/34	11:29	95		96		99		98		94	
CCB 240-276554/35	11:33	95		96		99		102		99	
CCVL 240-276554/36	11:38	96		97		100		102		99	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 04/27/2017 End Date: 04/27/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-276554/3 I	09:13	101		101		101					
STD2 240-276554/4 I	09:18	101		101		98					
STD3 240-276554/5 I	09:22	101		102		96					
STD4 240-276554/6 I	09:26	105		105		106					
ICV 240-276554/7	09:30	105		104		101					
ICB 240-276554/8	09:34	107		109		107					
ICVL 240-276554/9	09:39	106		107		107					
ICSA 240-276554/10	09:43	95		94		95					
ICSAB 240-276554/11	09:47	94		94		94					
CCV 240-276554/22	10:39	99		102		96					
CCB 240-276554/23	10:44	100		101		102					
MB 240-275710/1-A	10:48	98		99		107					
LCS 240-275710/3-A	10:52	97		97		100					
CCV 240-276554/27	11:00	107		108		102					
CCB 240-276554/28	11:04	108		110		106					
240-78379-4	11:09	96		96		97					
240-78379-4 SD	11:13	103		103		103					
240-78379-4 MS	11:21	93		95		92					
240-78379-4 MSD	11:25	93		94		90					
CCV 240-276554/34	11:29	99		100		96					
CCB 240-276554/35	11:33	100		101		100					
CCVL 240-276554/36	11:38	101		101		101					

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG No.:

Project: MRC 2017 GW

Client Sample ID	Lab Sample ID
MRC-MW14B-041817	240-78295-2
MRC-MW72B-041817	240-78295-5
MRC-MW81B-041917	240-78379-2
MRC-MW48A-041917	240-78379-4
MRC-MW25A-042117	240-78519-2

Comments:

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: LCN Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274398

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	13:48	Chloride	50.8	50.0	102	90-110		WCICLCS_00603
			Sulfate	51.8	50.0	104	90-110		WCICLCS_00603
11	ICB	14:08	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: LCN Batch Start Date: 04/12/2017

Reporting Units: mg/L Analytical Batch No.: 274399

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	13:48	Nitrite as N	2.54	2.50	101	90-110		WCICLCS_00603
			Nitrate as N	2.56	2.50	103	90-110		WCICLCS_00603
11	ICB	14:08	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: LKG Batch Start Date: 04/19/2017

Reporting Units: mg/L Analytical Batch No.: 275386

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	09:49	Chloride	49.6	50.0	99	90-110		WCICCCV_00766
			Sulfate	50.6	50.0	101	90-110		WCICCCV_00766
2	CCB	10:09	Chloride	0.41				U	
			Sulfate	0.13				U	
13	CCV	16:23	Chloride	49.7	50.0	99	90-110		WCICCCV_00766
			Sulfate	50.6	50.0	101	90-110		WCICCCV_00766
14	CCB	16:43	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: LKG Batch Start Date: 04/19/2017

Reporting Units: mg/L Analytical Batch No.: 275387

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	09:49	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.51	2.50	100	90-110		WCICCCV_00766
2	CCB	10:09	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
13	CCV	16:23	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.50	2.50	100	90-110		WCICCCV_00766
14	CCB	16:43	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: LKG Batch Start Date: 04/20/2017

Reporting Units: mg/L Analytical Batch No.: 275511

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:07	Chloride	49.8	50.0	100	90-110		WCICCCV_00766
			Sulfate	50.3	50.0	101	90-110		WCICCCV_00766
2	CCB	10:27	Chloride	0.41				U	
			Sulfate	0.13				U	
13	CCV	14:35	Chloride	49.8	50.0	100	90-110		WCICCCV_00766
			Sulfate	50.5	50.0	101	90-110		WCICCCV_00766
14	CCB	14:55	Chloride	0.41				U	
			Sulfate	0.13				U	
25	CCV	18:36	Chloride	49.7	50.0	99	90-110		WCICCCV_00766
			Sulfate	50.4	50.0	101	90-110		WCICCCV_00766
26	CCB	18:56	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: LKG Batch Start Date: 04/20/2017

Reporting Units: mg/L Analytical Batch No.: 275512

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:07	Nitrite as N	2.54	2.50	102	90-110		WCICCCV_00766
			Nitrate as N	2.51	2.50	100	90-110		WCICCCV_00766
2	CCB	10:27	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
13	CCV	14:35	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.51	2.50	100	90-110		WCICCCV_00766
14	CCB	14:55	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
25	CCV	18:36	Nitrite as N	2.52	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.51	2.50	100	90-110		WCICCCV_00766
26	CCB	18:56	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: LKG Batch Start Date: 04/22/2017

Reporting Units: mg/L Analytical Batch No.: 275818

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	16:49	Chloride	49.9	50.0	100	90-110		WCICCCV_00766
			Sulfate	51.2	50.0	102	90-110		WCICCCV_00766
2	CCB	17:09	Chloride	0.41				U	
			Sulfate	0.13				U	
12	CCV	20:30	Chloride	50.0	50.0	100	90-110		WCICCCV_00766
			Sulfate	51.6	50.0	103	90-110		WCICCCV_00766
13	CCB	20:50	Chloride	0.41				U	
			Sulfate	0.13				U	
18	CCV	22:31	Chloride	49.9	50.0	100	90-110		WCICCCV_00766
			Sulfate	51.8	50.0	104	90-110		WCICCCV_00766
19	CCB	22:51	Chloride	0.41				U	
			Sulfate	0.13				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: LKG Batch Start Date: 04/22/2017

Reporting Units: mg/L Analytical Batch No.: 275819

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	16:49	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.52	2.50	101	90-110		WCICCCV_00766
2	CCB	17:09	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
12	CCV	20:30	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.53	2.50	101	90-110		WCICCCV_00766
13	CCB	20:50	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	
18	CCV	22:31	Nitrite as N	2.52	2.50	101	90-110		WCICCCV_00766
			Nitrate as N	2.53	2.50	101	90-110		WCICCCV_00766
19	CCB	22:51	Nitrite as N	0.038				U	
			Nitrate as N	0.035				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: JWW Batch Start Date: 03/14/2017

Reporting Units: mg/L Analytical Batch No.: 270540

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
12	ICB	13:22	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: LKG Batch Start Date: 04/19/2017

Reporting Units: mg/L Analytical Batch No.: 275410

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:51	Orthophosphate as P	0.517	0.500	103	90-110		WCPhos 1ppm_00024
2	CCB	13:52	Orthophosphate as P	0.00878				J	
10	CCV	14:06	Orthophosphate as P	0.517	0.500	103	90-110		WCPhos 1ppm_00024
11	CCB	14:08	Orthophosphate as P	0.00674				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: LCN Batch Start Date: 04/20/2017

Reporting Units: mg/L Analytical Batch No.: 275582

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:57	Orthophosphate as P	0.532	0.500	106	90-110		WCPhos 1ppm_00024
2	CCB	13:59	Orthophosphate as P	0.0050				U	
9	CCV	14:15	Orthophosphate as P	0.529	0.500	106	90-110		WCPhos 1ppm_00024
10	CCB	14:17	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: TPH Batch Start Date: 04/26/2017

Reporting Units: mg/L Analytical Batch No.: 276327

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
2	CCV	05:37	Dissolved Organic Carbon	25.8	25.0	103	90-110		WC TOC CCV_00353
3	CCB	05:44	Dissolved Organic Carbon	0.080				U	
14	CCVL	08:55	Dissolved Organic Carbon	5.14	5.00	103	90-110		WC TOC CCVL_00149
15	CCB	09:04	Dissolved Organic Carbon	0.080				U	
19	CCV	10:34	Dissolved Organic Carbon	25.1	25.0	100	90-110		WC TOC CCV_00353
20	CCVL	10:43	Dissolved Organic Carbon	5.12	5.00	102	90-110		WC TOC CCVL_00149
21	CCB	10:53	Dissolved Organic Carbon	0.080				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: JWW Batch Start Date: 03/14/2017

Reporting Units: mg/L Analytical Batch No.: 270540

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
11	ICV	13:18	Orthophosphate as P	0.551	0.509	108	90-110		WCWIBBYNUTRIE_00072

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Analyst: LKG Batch Start Date: 04/22/2017

Reporting Units: mg/L Analytical Batch No.: 275820

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:57	Orthophosphate as P	0.503	0.500	101	90-110		WCPhos 1ppm_00024
2	CCB	12:57	Orthophosphate as P	0.0050				U	
8	CCV	12:57	Orthophosphate as P	0.503	0.500	101	90-110		WCPhos 1ppm_00024
9	CCB	12:57	Orthophosphate as P	0.0050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 276867 Date: 04/29/2017 12:39							
2320B-1997	MB 240-276867/5	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 276867 Date: 04/29/2017 13:20							
2320B-1997	MB 240-276867/9	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 277255 Date: 05/03/2017 07:45							
2320B-1997	MB 240-277255/3	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 277592 Date: 05/04/2017 07:16							
2320B-1997	MB 240-277592/3	Alkalinity	1.9	U	mg/L	5.0	1
Batch ID: 275386 Date: 04/19/2017 10:29							
300.0	MB 240-275386/3	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-275386/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 275387 Date: 04/19/2017 10:29							
300.0	MB 240-275387/3	Nitrite as N	0.038	U	mg/L	0.10	1
300.0	MB 240-275387/3	Nitrate as N	0.035	U	mg/L	0.10	1
Batch ID: 275511 Date: 04/20/2017 10:47							
300.0	MB 240-275511/3	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-275511/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 275512 Date: 04/20/2017 10:47							
300.0	MB 240-275512/3	Nitrite as N	0.038	U	mg/L	0.10	1
300.0	MB 240-275512/3	Nitrate as N	0.035	U	mg/L	0.10	1
Batch ID: 275818 Date: 04/22/2017 17:29							
300.0	MB 240-275818/3	Chloride	0.41	U	mg/L	1.0	1
300.0	MB 240-275818/3	Sulfate	0.13	U	mg/L	1.0	1
Batch ID: 275819 Date: 04/22/2017 17:29							
300.0	MB 240-275819/3	Nitrite as N	0.038	U	mg/L	0.10	1
300.0	MB 240-275819/3	Nitrate as N	0.035	U	mg/L	0.10	1
Batch ID: 276992 Date: 05/01/2017 15:31 Prep Batch: 276988 Date: 05/01/2017 10:44							
4500 NH3 C-1997	MB 240-276988/1-A	Ammonia	0.87	U	mg/L	2.0	1
Batch ID: 275410 Date: 04/19/2017 13:54							
4500 P E-1999	MB 240-275410/3	Orthophosphate as P	0.00674	J	mg/L	0.10	1
Batch ID: 275582 Date: 04/20/2017 14:01							
4500 P E-1999	MB 240-275582/3	Orthophosphate as P	0.0050	U	mg/L	0.10	1
Batch ID: 276327 Date: 04/26/2017 05:55							
9060	MB 240-276327/4	Dissolved Organic Carbon	0.080	U	mg/L	1.0	1
Batch ID: 276095 Date: 04/25/2017 09:49							
SM 2540C	MB 240-276095/1	Total Dissolved Solids	7.4	U	mg/L	10	1
Batch ID: 276161 Date: 04/25/2017 13:06							
SM 2540C	MB 240-276161/1	Total Dissolved Solids	7.4	U	mg/L	10	1
Batch ID: 276699 Date: 04/28/2017 10:01							
SM 2540C	MB 240-276699/1	Total Dissolved Solids	7.4	U	mg/L	10	1
Batch ID: 275820 Date: 04/22/2017 12:57							
SM 4500 P E	MB 240-275820/3	Orthophosphate as P	0.0050	U	mg/L	0.10	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 275386 Date: 04/19/2017 15:02											
300.0	240-78295-5	Chloride	14		mg/L						
300.0	240-78295-5 MS	Chloride	63.8		mg/L	50.0	100	80-120			
300.0	240-78295-5	Sulfate	1.3		mg/L						
300.0	240-78295-5 MS	Sulfate	52.5		mg/L	50.0	102	80-120			
Batch ID: 275387 Date: 04/19/2017 15:02											
300.0	240-78295-5	Nitrite as N	0.11		mg/L						
300.0	240-78295-5 MS	Nitrite as N	2.61		mg/L	2.50	100	80-120			
300.0	240-78295-5	Nitrate as N	0.44		mg/L						
300.0	240-78295-5 MS	Nitrate as N	2.98		mg/L	2.50	102	80-120			
Batch ID: 275511 Date: 04/20/2017 15:35											
300.0	240-78317-F-4	Chloride	35		mg/L						
300.0	240-78317-F-4 MS	Chloride	85.1		mg/L	50.0	100	80-120			
300.0	240-78317-F-4	Sulfate	84		mg/L						
300.0	240-78317-F-4 MS	Sulfate	133		mg/L	50.0	99	80-120			
Batch ID: 275512 Date: 04/20/2017 15:35											
300.0	240-78317-F-4	Nitrite as N	0.038	U	mg/L						
300.0	240-78317-F-4 MS	Nitrite as N	2.77		mg/L	2.50	111	80-120			
300.0	240-78317-F-4	Nitrate as N	0.12		mg/L						
300.0	240-78317-F-4 MS	Nitrate as N	2.73		mg/L	2.50	105	80-120			
Batch ID: 275818 Date: 04/22/2017 19:09											
300.0	240-78518-J-4	Chloride	33		mg/L						
300.0	240-78518-J-4 MS	Chloride	82.1		mg/L	50.0	98	80-120			
300.0	240-78518-J-4	Sulfate	13		mg/L						
300.0	240-78518-J-4 MS	Sulfate	65.1		mg/L	50.0	104	80-120			
Batch ID: 275819 Date: 04/22/2017 19:09											
300.0	240-78518-J-4	Nitrite as N	0.038	U	mg/L						
300.0	240-78518-J-4 MS	Nitrite as N	2.65		mg/L	2.50	106	80-120			
300.0	240-78518-J-4	Nitrate as N	0.15		mg/L						
300.0	240-78518-J-4 MS	Nitrate as N	2.72		mg/L	2.50	103	80-120			
Batch ID: 276992 Date: 05/01/2017 15:43 Prep Batch: 276988 Date: 05/01/2017 10:44											
4500 NH3 C-1997	240-78372-D-1 -B	Ammonia	0.87	U	mg/L						
4500 NH3 C-1997	240-78372-D-1 -B MS	Ammonia	4.48		mg/L	4.00	112	67-127			
Batch ID: 275410 Date: 04/19/2017 14:01											

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
4500 P E-1999	240-78295-5	Orthophosphate as P	0.056	J	mg/L						B
4500 P E-1999	240-78295-5 MS	Orthophosphate as P	0.551		mg/L	0.500	99	31-154			
Batch ID: 275582 Date: 04/20/2017 14:08											
4500 P E-1999	240-78379-4	Orthophosphate as P	0.035	J	mg/L						
4500 P E-1999	240-78379-4 MS	Orthophosphate as P	0.540		mg/L	0.500	101	31-154			
Batch ID: 276327 Date: 04/26/2017 06:47											
9060	240-78206-I-2	Dissolved Organic Carbon	1.5		mg/L						
9060	240-78206-I-2 MS	Dissolved Organic Carbon	26.5		mg/L	25.0	100	65-134			
Batch ID: 275820 Date: 04/22/2017 12:57											
SM 4500 P E	240-78519-2	Orthophosphate as P	0.050	U	mg/L						
SM 4500 P E	240-78519-2 MS	Orthophosphate as P	2.61		mg/L	5.00	52	31-154			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 275386 Date: 04/19/2017 15:23											
300.0	240-78295-5 MSD	Chloride	65.3		mg/L	50.0	103	80-120	2	15	
300.0	240-78295-5 MSD	Sulfate	54.2		mg/L	50.0	106	80-120	3	15	
Batch ID: 275387 Date: 04/19/2017 15:23											
300.0	240-78295-5 MSD	Nitrite as N	2.64		mg/L	2.50	101	80-120	1	15	
300.0	240-78295-5 MSD	Nitrate as N	3.07		mg/L	2.50	105	80-120	3	15	
Batch ID: 275511 Date: 04/20/2017 15:56											
300.0	240-78317-F-4 MSD	Chloride	85.9		mg/L	50.0	102	80-120	1	15	
300.0	240-78317-F-4 MSD	Sulfate	134		mg/L	50.0	101	80-120	1	15	
Batch ID: 275512 Date: 04/20/2017 15:56											
300.0	240-78317-F-4 MSD	Nitrite as N	2.69		mg/L	2.50	108	80-120	3	15	
300.0	240-78317-F-4 MSD	Nitrate as N	2.78		mg/L	2.50	106	80-120	2	15	
Batch ID: 275818 Date: 04/22/2017 19:29											
300.0	240-78518-J-4 MSD	Chloride	83.5		mg/L	50.0	101	80-120	2	15	
300.0	240-78518-J-4 MSD	Sulfate	66.6		mg/L	50.0	107	80-120	2	15	
Batch ID: 275819 Date: 04/22/2017 19:29											
300.0	240-78518-J-4 MSD	Nitrite as N	2.76		mg/L	2.50	110	80-120	4	15	
300.0	240-78518-J-4 MSD	Nitrate as N	2.80		mg/L	2.50	106	80-120	3	15	
Batch ID: 276992 Date: 05/01/2017 15:45 Prep Batch: 276988 Date: 05/01/2017 10:44											
4500 NH3 C-1997	240-78372-D-1 -C MSD	Ammonia	4.76		mg/L	4.00	119	67-127	6	16	
Batch ID: 275410 Date: 04/19/2017 14:03											
4500 P E-1999	240-78295-5 MSD	Orthophosphate as P	0.512		mg/L	0.500	91	31-154	7	11	
Batch ID: 275582 Date: 04/20/2017 14:10											
4500 P E-1999	240-78379-4 MSD	Orthophosphate as P	0.552		mg/L	0.500	103	31-154	2	11	
Batch ID: 276327 Date: 04/26/2017 06:54											
9060	240-78206-I-2 MSD	Dissolved Organic Carbon	25.3		mg/L	25.0	95	65-134	5	10	
Batch ID: 275820 Date: 04/22/2017 12:57											
SM 4500 P E	240-78519-2 MSD	Orthophosphate as P	2.59		mg/L	5.00	52	31-154	1	11	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 276867	Date: 04/29/2017 13:34							
2320B-1997	MRC-MW72B-041817	240-78295-5	Alkalinity	5.3	mg/L			
2320B-1997	MRC-MW72B-041817	240-78295-5 DU	Alkalinity	5.34	mg/L	0.2	20	
Batch ID: 277255	Date: 05/03/2017 07:51							
2320B-1997		240-78548-F-1	Alkalinity	190	mg/L			
2320B-1997		240-78548-F-1 DU	Alkalinity	188	mg/L	2	20	
Batch ID: 277592	Date: 05/04/2017 07:42							
2320B-1997		240-78518-I-2	Alkalinity	230	mg/L			
2320B-1997		240-78518-I-2 DU	Alkalinity	230	mg/L	0.9	20	
Batch ID: 276095	Date: 04/25/2017 09:49							
SM 2540C		240-78462-B-3	Total Dissolved Solids	520	mg/L			
SM 2540C		240-78462-B-3 DU	Total Dissolved Solids	537	mg/L	3	20	
Batch ID: 276161	Date: 04/25/2017 13:06							
SM 2540C		240-78317-F-3	Total Dissolved Solids	110	mg/L			
SM 2540C		240-78317-F-3 DU	Total Dissolved Solids	119	mg/L	3	20	
Batch ID: 276699	Date: 04/28/2017 10:01							
SM 2540C		240-78543-S-2	Total Dissolved Solids	580	mg/L			
SM 2540C		240-78543-S-2 DU	Total Dissolved Solids	593	mg/L	2	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 276867	Date: 04/29/2017 12:33										
						LCS Source: WCPHENOMINER_00017					
2320B-1997	LCS 240-276867/4	Alkalinity	340		mg/L	377	90	86-123			
Batch ID: 276867	Date: 04/29/2017 13:13										
						LCS Source: WCPHENOMINER_00017					
2320B-1997	LCS 240-276867/8	Alkalinity	339		mg/L	377	90	86-123			
Batch ID: 277255	Date: 05/03/2017 07:42										
						LCS Source: WCPHENOMINER_00017					
2320B-1997	LCS 240-277255/2	Alkalinity	371		mg/L	377	98	86-123			
Batch ID: 277592	Date: 05/04/2017 07:10										
						LCS Source: WCPHENOMINER_00017					
2320B-1997	LCS 240-277592/2	Alkalinity	369		mg/L	377	98	86-123			
Batch ID: 275386	Date: 04/19/2017 10:49										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-275386/4	Chloride	50.9		mg/L	50.0	102	90-110			
300.0	LCS 240-275386/4	Sulfate	51.5		mg/L	50.0	103	90-110			
Batch ID: 275387	Date: 04/19/2017 10:49										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-275387/4	Nitrite as N	2.52		mg/L	2.50	101	90-110			
300.0	LCS 240-275387/4	Nitrate as N	2.56		mg/L	2.50	102	90-110			
Batch ID: 275511	Date: 04/20/2017 11:08										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-275511/4	Chloride	51.0		mg/L	50.0	102	90-110			
300.0	LCS 240-275511/4	Sulfate	51.2		mg/L	50.0	102	90-110			
Batch ID: 275512	Date: 04/20/2017 11:08										
						LCS Source: WCICLCS_00603					
300.0	LCS 240-275512/4	Nitrite as N	2.52		mg/L	2.50	101	90-110			
300.0	LCS 240-275512/4	Nitrate as N	2.55		mg/L	2.50	102	90-110			
Batch ID: 275818	Date: 04/22/2017 17:49										
						LCS Source: WCICLCS_00604					
300.0	LCS 240-275818/4	Chloride	51.2		mg/L	50.0	102	90-110			
300.0	LCS 240-275818/4	Sulfate	51.7		mg/L	50.0	103	90-110			
Batch ID: 275819	Date: 04/22/2017 17:49										
						LCS Source: WCICLCS_00604					
300.0	LCS 240-275819/4	Nitrite as N	2.53		mg/L	2.50	101	90-110			
300.0	LCS 240-275819/4	Nitrate as N	2.57		mg/L	2.50	103	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 276992	Date: 05/01/2017 15:32		Prep Batch: 276988			Date: 05/01/2017 10:44					
						LCS Source: WCWIBBYNUTRIE_00074					
4500 NH3 C-1997	LCS 240-276988/2-A	Ammonia	9.24		mg/L	10.3	90	82-116			
Batch ID: 275410	Date: 04/19/2017 13:56										
						LCS Source: WCWIBBYNUTRIE_00072					
4500 P E-1999	LCS 240-275410/4	Orthophosphate as P	0.534		mg/L	0.509	105	80-120			
Batch ID: 275582	Date: 04/20/2017 14:03										
						LCS Source: WCWIBBYNUTRIE_00072					
4500 P E-1999	LCS 240-275582/4	Orthophosphate as P	0.299		mg/L	0.255	118	80-120			
Batch ID: 276327	Date: 04/26/2017 06:11										
						LCS Source: WC LCS_00057					
9060	LCS 240-276327/6	Dissolved Organic Carbon	48.5		mg/L	46.3	105	80-120			
Batch ID: 276095	Date: 04/25/2017 09:49										
						LCS Source: WCPHENOVSOLID_00021					
SM 2540C	LCS 240-276095/2	Total Dissolved Solids	210		mg/L	208	101	80-120			
Batch ID: 276161	Date: 04/25/2017 13:06										
						LCS Source: WCPHENOVSOLID_00021					
SM 2540C	LCS 240-276161/2	Total Dissolved Solids	174		mg/L	208	84	80-120			
Batch ID: 276699	Date: 04/28/2017 10:01										
						LCS Source: WCPHENOVSOLID_00021					
SM 2540C	LCS 240-276699/2	Total Dissolved Solids	244		mg/L	208	117	80-120			
Batch ID: 275820	Date: 04/22/2017 12:57										
						LCS Source: WCWIBBYNUTRIE_00072					
SM 4500 P E	LCS 240-275820/4	Orthophosphate as P	0.496		mg/L	0.509	98	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LOW LEVEL CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 276327	Date: 04/26/2017 06:03										
						LCS Source: WC LCS_00058					
9060	LLCS 240-276327/5	Dissolved Organic Carbon	4.78		mg/L	4.63	103	88-115			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 MDL Date: 05/28/2013 15:29

Prep Method: 4500 NH3 B-1997

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia		2	0.87

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 XMDL Date: 05/28/2013 15:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		2	0.87

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: Randolph

Method: 2320B-1997 MDL Date: 07/12/2013 09:18

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	1.9

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: Randolph

Method: 2320B-1997 XMDL Date: 07/12/2013 09:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.9

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 MDL Date: 07/12/2013 09:18

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	1.9

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: STEVE

Method: 2320B-1997 XMDL Date: 07/12/2013 09:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.9

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 MDL Date: 08/12/2014 17:01

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 300.0 XMDL Date: 08/12/2014 17:02

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.407
Nitrate as N		0.1	0.035
Nitrite as N		0.1	0.038
Sulfate		1	0.13

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: 4500 P E-1999 MDL Date: 03/31/2016 13:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: 4500 P E-1999 XMDL Date: 02/17/2016 10:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 MDL Date: 04/28/2015 15:58

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: Clark

Method: 9060 XMDL Date: 04/28/2015 15:59

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 01/28/2010 09:50

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 01/28/2010 09:51

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.4

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: SM 4500 P E MDL Date: 03/31/2016 13:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Orthophosphate as P		0.1	0.005

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-78295-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: SM 4500 P E XMDL Date: 02/17/2016 10:31

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Orthophosphate as P		0.1	0.005

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Prep Method: 4500 NH3 B-1997

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-276988/1-A	05/01/2017 10:44	276988		50	50
LCS 240-276988/2-A	05/01/2017 10:44	276988		50	50
240-78295-2	05/01/2017 10:44	276988		50	50
240-78295-5	05/01/2017 10:44	276988		50	50
240-78372-D-1-B MS	05/01/2017 10:44	276988		50	50
240-78372-D-1-C MSD	05/01/2017 10:44	276988		50	50
240-78379-2	05/01/2017 10:44	276988		50	50
240-78379-4	05/01/2017 10:44	276988		50	50
240-78519-2	05/01/2017 10:44	276988		50	50

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 4500 NH3 C-1997

Start Date: 05/01/2017 15:31 End Date: 05/01/2017 16:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
MB 240-276988/1-A	1	T	15:31	X																								
LCS 240-276988/2-A	1	T	15:32	X																								
ZZZZZZ			15:33																									
ZZZZZZ			15:35																									
240-78295-2	1	T	15:36	X																								
240-78295-5	1	T	15:38	X																								
ZZZZZZ			15:39																									
ZZZZZZ			15:41																									
ZZZZZZ			15:42																									
240-78372-D-1-B MS	1	T	15:43	X																								
240-78372-D-1-C MSD	1	T	15:45	X																								
ZZZZZZ			15:46																									
ZZZZZZ			15:48																									
240-78379-2	1	T	15:49	X																								
240-78379-4	1	T	15:51	X																								
ZZZZZZ			15:52																									
ZZZZZZ			15:53																									
240-78519-2	1	T	15:55	X																								
ZZZZZZ			15:56																									
ZZZZZZ			15:58																									
ZZZZZZ			15:59																									
ZZZZZZ			16:01																									
ZZZZZZ			16:02																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: Randolph Analysis Method: 2320B-1997

Start Date: 05/03/2017 07:39 End Date: 05/03/2017 09:01

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			07:39																									
LCS 240-277255/2	1	T	07:42	X																								
MB 240-277255/3	1	T	07:45	X																								
ZZZZZZ			07:48																									
240-78548-F-1 DU	1	T	07:51	X																								
ZZZZZZ			07:54																									
ZZZZZZ			07:57																									
ZZZZZZ			08:00																									
240-78379-2	1	T	08:03	X																								
240-78379-4	1	T	08:06	X																								
ZZZZZZ			08:09																									
ZZZZZZ			08:12																									
ZZZZZZ			08:15																									
ZZZZZZ			08:18																									
ZZZZZZ			08:21																									
ZZZZZZ			08:25																									
ZZZZZZ			08:28																									
ZZZZZZ			08:31																									
ZZZZZZ			08:34																									
ZZZZZZ			08:37																									
ZZZZZZ			08:40																									
ZZZZZZ			08:43																									
ZZZZZZ			08:46																									
ZZZZZZ			08:49																									
ZZZZZZ			08:52																									
ZZZZZZ			08:55																									
ZZZZZZ			08:58																									
ZZZZZZ			09:01																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 04/29/2017 11:53 End Date: 04/29/2017 16:27

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
RINSE 240-276867/1			11:53																									
RINSE 240-276867/2			11:59																									
ZZZZZZ			12:19																									
LCS 240-276867/4	1	T	12:33	X																								
MB 240-276867/5	1	T	12:39	X																								
ZZZZZZ			12:43																									
240-78295-2	1	T	13:00	X																								
LCS 240-276867/8	1	T	13:13	X																								
MB 240-276867/9	1	T	13:20	X																								
240-78295-5	1	T	13:27	X																								
240-78295-5 DU	1	T	13:34	X																								
ZZZZZZ			13:44																									
ZZZZZZ			13:53																									
ZZZZZZ			14:03																									
ZZZZZZ			14:13																									
ZZZZZZ			14:23																									
ZZZZZZ			14:28																									
ZZZZZZ			14:36																									
ZZZZZZ			14:46																									
ZZZZZZ			14:56																									
ZZZZZZ			15:05																									
ZZZZZZ			15:12																									
ZZZZZZ			15:21																									
ZZZZZZ			15:39																									
ZZZZZZ			15:57																									
ZZZZZZ			16:23																									
ZZZZZZ			16:27																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: STEVE Analysis Method: 2320B-1997

Start Date: 05/04/2017 06:56 End Date: 05/04/2017 12:46

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
ZZZZZZ			06:56	
LCS 240-277592/2	1	T	07:10	X
MB 240-277592/3	1	T	07:16	X
ZZZZZZ			07:20	
ZZZZZZ			07:32	
240-78518-I-2 DU	1	T	07:42	X
ZZZZZZ			07:52	
ZZZZZZ			08:01	
ZZZZZZ			08:10	
ZZZZZZ			08:19	
240-78519-2	1	T	08:27	X
ZZZZZZ			08:36	
ZZZZZZ			08:45	
ZZZZZZ			08:54	
ZZZZZZ			08:58	
ZZZZZZ			09:07	
ZZZZZZ			09:15	
ZZZZZZ			09:24	
ZZZZZZ			09:33	
ZZZZZZ			09:42	
ZZZZZZ			09:53	
ZZZZZZ			10:02	
ZZZZZZ			10:11	
ZZZZZZ			10:17	
ZZZZZZ			10:32	
ZZZZZZ			10:36	
ZZZZZZ			10:49	
ZZZZZZ			10:56	
ZZZZZZ			11:10	
ZZZZZZ			11:26	
ZZZZZZ			11:42	
ZZZZZZ			11:57	
ZZZZZZ			12:13	
ZZZZZZ			12:26	
ZZZZZZ			12:38	
ZZZZZZ			12:42	
ZZZZZZ			12:46	

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/12/2017 10:47 End Date: 04/12/2017 14:08

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
STD1 240-274398/1 IC	1		10:47	X	X																								
STD2 240-274398/2 IC	1		11:07	X	X																								
STD3 240-274398/3 IC	1		11:27	X	X																								
STD4 240-274398/4 IC	1		11:48	X	X																								
STD5 240-274398/5 ICRT	1		12:08	X	X																								
STD6 240-274398/6 IC	1		12:28	X	X																								
STD7 240-274398/7 IC	1		12:48	X	X																								
STD8 240-274398/8 IC	1		13:08	X	X																								
STD9 240-274398/9 IC	1		13:28	X	X																								
ICV 240-274398/10	1		13:48	X	X																								
ICB 240-274398/11	1		14:08	X	X																								

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/12/2017 10:47 End Date: 04/12/2017 14:08

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
STD1 240-274399/1 IC	1		10:47	X	X																								
STD2 240-274399/2 IC	1		11:07	X	X																								
STD3 240-274399/3 IC	1		11:27	X	X																								
STD4 240-274399/4 IC	1		11:48	X	X																								
STD5 240-274399/5 ICRT	1		12:08	X	X																								
STD6 240-274399/6 IC	1		12:28	X	X																								
STD7 240-274399/7 IC	1		12:48	X	X																								
STD8 240-274399/8 IC	1		13:08	X	X																								
STD9 240-274399/9 IC	1		13:28	X	X																								
ICV 240-274399/10	1		13:48	X	X																								
ICB 240-274399/11	1		14:08	X	X																								

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/19/2017 09:49 End Date: 04/19/2017 16:43

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
CCV 240-275386/1	1		09:49	X	X																								
CCB 240-275386/2	1		10:09	X	X																								
MB 240-275386/3	1	T	10:29	X	X																								
LCS 240-275386/4	1	T	10:49	X	X																								
ZZZZZZ			13:42																										
ZZZZZZ			14:02																										
ZZZZZZ			14:22																										
240-78295-5	1	T	14:42	X	X																								
240-78295-5 MS	1	T	15:02	X	X																								
240-78295-5 MSD	1	T	15:23	X	X																								
240-78295-2	1	T	15:43	X	X																								
ZZZZZZ			16:03																										
CCV 240-275386/13	1		16:23	X	X																								
CCB 240-275386/14	1		16:43	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/19/2017 09:49 End Date: 04/19/2017 16:43

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-275387/1	1		09:49	X	X																								
CCB 240-275387/2	1		10:09	X	X																								
MB 240-275387/3	1	T	10:29	X	X																								
LCS 240-275387/4	1	T	10:49	X	X																								
ZZZZZZ			13:42																										
ZZZZZZ			14:02																										
ZZZZZZ			14:22																										
240-78295-5	1	T	14:42	X	X																								
240-78295-5 MS	1	T	15:02	X	X																								
240-78295-5 MSD	1	T	15:23	X	X																								
240-78295-2	1	T	15:43	X	X																								
ZZZZZZ			16:03																										
CCV 240-275387/13	1		16:23	X	X																								
CCB 240-275387/14	1		16:43	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/20/2017 10:07 End Date: 04/21/2017 00:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
CCV 240-275511/1	1		10:07	X	X																								
CCB 240-275511/2	1		10:27	X	X																								
MB 240-275511/3	1	T	10:47	X	X																								
LCS 240-275511/4	1	T	11:08	X	X																								
ZZZZZZ			11:54																										
ZZZZZZ			12:14																										
ZZZZZZ			12:34																										
ZZZZZZ			12:54																										
ZZZZZZ			13:14																										
ZZZZZZ			13:34																										
ZZZZZZ			13:55																										
ZZZZZZ			14:15																										
CCV 240-275511/13	1		14:35	X	X																								
CCB 240-275511/14	1		14:55	X	X																								
ZZZZZZ			15:15																										
240-78317-F-4 MS	1	T	15:35	X	X																								
240-78317-F-4 MSD	1	T	15:56	X	X																								
ZZZZZZ			16:16																										
ZZZZZZ			16:36																										
240-78379-2	1	T	17:36	X	X																								
240-78379-4	1	T	17:56	X	X																								
ZZZZZZ			18:16																										
CCV 240-275511/25	1		18:36	X	X																								
CCB 240-275511/26	1		18:56	X	X																								
ZZZZZZ			19:16																										
ZZZZZZ			19:37																										
ZZZZZZ			19:57																										
ZZZZZZ			20:17																										
ZZZZZZ			20:37																										
ZZZZZZ			20:57																										
ZZZZZZ			21:17																										
ZZZZZZ			21:37																										
ZZZZZZ			21:57																										
ZZZZZZ			22:17																										
CCV 240-275511/37			22:37																										
CCB 240-275511/38			22:57																										
ZZZZZZ			23:17																										
ZZZZZZ			23:38																										
CCV 240-275511/41			23:58																										
CCB 240-275511/42			00:18																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/20/2017 10:07 End Date: 04/21/2017 00:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cl-	SO4																							

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/20/2017 10:07 End Date: 04/21/2017 00:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-275512/1	1		10:07	X	X																								
CCB 240-275512/2	1		10:27	X	X																								
MB 240-275512/3	1	T	10:47	X	X																								
LCS 240-275512/4	1	T	11:08	X	X																								
ZZZZZZ			11:54																										
ZZZZZZ			12:14																										
ZZZZZZ			12:34																										
ZZZZZZ			12:54																										
ZZZZZZ			13:14																										
ZZZZZZ			13:34																										
ZZZZZZ			13:55																										
ZZZZZZ			14:15																										
CCV 240-275512/13	1		14:35	X	X																								
CCB 240-275512/14	1		14:55	X	X																								
ZZZZZZ			15:15																										
240-78317-F-4 MS	1	T	15:35	X	X																								
240-78317-F-4 MSD	1	T	15:56	X	X																								
ZZZZZZ			16:16																										
ZZZZZZ			16:36																										
ZZZZZZ			16:56																										
ZZZZZZ			17:16																										
240-78379-2	1	T	17:36	X	X																								
240-78379-4	1	T	17:56	X	X																								
ZZZZZZ			18:16																										
CCV 240-275512/25	1		18:36	X	X																								
CCB 240-275512/26	1		18:56	X	X																								
ZZZZZZ			19:16																										
ZZZZZZ			19:37																										
ZZZZZZ			19:57																										
ZZZZZZ			20:17																										
ZZZZZZ			20:37																										
ZZZZZZ			20:57																										
ZZZZZZ			21:17																										
ZZZZZZ			21:37																										
ZZZZZZ			21:57																										
ZZZZZZ			22:17																										
CCV 240-275512/37			22:37																										
CCB 240-275512/38			22:57																										
ZZZZZZ			23:17																										

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/20/2017 10:07 End Date: 04/21/2017 00:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				N-No2	NO3																							
ZZZZZZ			23:38																									
CCV 240-275512/41			23:58																									
CCB 240-275512/42			00:18																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/22/2017 16:49 End Date: 04/22/2017 22:51

Lab Sample Id	D/F	Type	Time	Analytes																								
				CL-	SO4																							
CCV 240-275818/1	1		16:49	X	X																							
CCB 240-275818/2	1		17:09	X	X																							
MB 240-275818/3	1	T	17:29	X	X																							
LCS 240-275818/4	1	T	17:49	X	X																							
ZZZZZZ			18:09																									
ZZZZZZ			18:29																									
ZZZZZZ			18:49																									
240-78518-J-4 MS	1	T	19:09	X	X																							
240-78518-J-4 MSD	1	T	19:29	X	X																							
ZZZZZZ			19:50																									
ZZZZZZ			20:10																									
CCV 240-275818/12	1		20:30	X	X																							
CCB 240-275818/13	1		20:50	X	X																							
ZZZZZZ			21:10																									
ZZZZZZ			21:30																									
ZZZZZZ			21:50																									
240-78519-2	1	T	22:10	X	X																							
CCV 240-275818/18	1		22:31	X	X																							
CCB 240-275818/19	1		22:51	X	X																							

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 300.0

Start Date: 04/22/2017 16:49 End Date: 04/22/2017 22:51

Lab Sample Id	D/F	Type	Time	Analytes																									
				N-No2	NO3																								
CCV 240-275819/1	1		16:49	X	X																								
CCB 240-275819/2	1		17:09	X	X																								
MB 240-275819/3	1	T	17:29	X	X																								
LCS 240-275819/4	1	T	17:49	X	X																								
ZZZZZZ			18:09																										
ZZZZZZ			18:29																										
ZZZZZZ			18:49																										
240-78518-J-4 MS	1	T	19:09	X	X																								
240-78518-J-4 MSD	1	T	19:29	X	X																								
ZZZZZZ			19:50																										
ZZZZZZ			20:10																										
CCV 240-275819/12	1		20:30	X	X																								
CCB 240-275819/13	1		20:50	X	X																								
240-78519-2	1	T	22:10	X	X																								
CCV 240-275819/18	1		22:31	X	X																								
CCB 240-275819/19	1		22:51	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: ERNIE Analysis Method: 4500 P E-1999

Start Date: 03/14/2017 12:45 End Date: 03/14/2017 13:45

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp																								
IC 240-270540/1	1		12:45	X																								
IC 240-270540/2	1		12:48	X																								
IC 240-270540/3	1		12:51	X																								
IC 240-270540/4	1		12:55	X																								
IC 240-270540/5	1		12:58	X																								
IC 240-270540/6	1		13:01	X																								
IC 240-270540/7	1		13:05	X																								
IC 240-270540/8	1		13:08	X																								
IC 240-270540/9	1		13:11	X																								
IC 240-270540/10	1		13:15	X																								
ICV 240-270540/11	1		13:18	X																								
ICB 240-270540/12	1		13:22	X																								
ZZZZZZ			13:25																									
ZZZZZZ			13:28																									
ZZZZZZ			13:32																									
ZZZZZZ			13:35																									
ZZZZZZ			13:38																									
CCV 240-270540/18			13:42																									
CCB 240-270540/19			13:45																									

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: ERNIE Analysis Method: 4500 P E-1999

Start Date: 04/19/2017 13:51 End Date: 04/19/2017 14:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosp																								
CCV 240-275410/1	1		13:51	X																								
CCB 240-275410/2	1		13:52	X																								
MB 240-275410/3	1	T	13:54	X																								
LCS 240-275410/4	1	T	13:56	X																								
ZZZZZZ			13:57																									
240-78295-5	1	T	13:59	X																								
240-78295-5 MS	1	T	14:01	X																								
240-78295-5 MSD	1	T	14:03	X																								
240-78295-2	10	T	14:04	X																								
CCV 240-275410/10	1		14:06	X																								
CCB 240-275410/11	1		14:08	X																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: ERNIE Analysis Method: 4500 P E-1999

Start Date: 04/20/2017 13:57 End Date: 04/20/2017 14:17

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosphosasp																								
CCV 240-275582/1	1		13:57	X																								
CCB 240-275582/2	1		13:59	X																								
MB 240-275582/3	1	T	14:01	X																								
LCS 240-275582/4	1	T	14:03	X																								
240-78379-4	1	T	14:06	X																								
240-78379-4 MS	1	T	14:08	X																								
240-78379-4 MSD	1	T	14:10	X																								
240-78379-2	1	T	14:13	X																								
CCV 240-275582/9	1		14:15	X																								
CCB 240-275582/10	1		14:17	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: Clark Analysis Method: 9060

Start Date: 04/26/2017 05:05 End Date: 04/26/2017 10:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			05:05																									
CCV 240-276327/2	1		05:37	X																								
CCB 240-276327/3	1		05:44	X																								
MB 240-276327/4	1	D	05:55	X																								
LLCS 240-276327/5	1	D	06:03	X																								
LCS 240-276327/6	1	D	06:11	X																								
ZZZZZZ			06:20																									
240-78206-I-2 MS	2	D	06:47	X																								
240-78206-I-2 MSD	2	D	06:54	X																								
ZZZZZZ			07:05																									
ZZZZZZ			07:33																									
240-78379-2	1	D	08:01	X																								
240-78379-4	1	D	08:29	X																								
CCVL 240-276327/14	1		08:55	X																								
CCB 240-276327/15	1		09:04	X																								
240-78295-2	1	D	09:12	X																								
240-78295-5	1	D	09:41	X																								
240-78519-2	1	D	10:09	X																								
CCV 240-276327/19	1		10:34	X																								
CCVL 240-276327/20	1		10:43	X																								
CCB 240-276327/21	1		10:53	X																								

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 04/25/2017 09:49 End Date: 04/25/2017 09:49

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-276095/1	1	T	09:49	X																								
LCS 240-276095/2	1	T	09:49	X																								
ZZZZZZ			09:49																									
ZZZZZZ			09:49																									
ZZZZZZ			09:49																									
ZZZZZZ			09:49																									
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ZZZZZZ			09:49																									
ZZZZZZ			09:49																									
240-78462-B-3 DU	1	T	09:49	X																								
ZZZZZZ			09:49																									
ZZZZZZ			09:49																									
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ZZZZZZ			09:49																									
ZZZZZZ			09:49																									
ZZZZZZ			09:49																									
ZZZZZZ			09:49																									
240-78295-2	1	T	09:49	X																								
240-78295-5	1	T	09:49	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 04/25/2017 13:06 End Date: 04/25/2017 13:06

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-276161/1	1	T	13:06	X																								
LCS 240-276161/2	1	T	13:06	X																								
240-78317-F-3 DU	1	T	13:06	X																								
ZZZZZZ			13:06																									
240-78379-2	1	T	13:06	X																								
240-78379-4	1	T	13:06	X																								
ZZZZZZ			13:06																									
ZZZZZZ			13:06																									
ZZZZZZ			13:06																									
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Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 04/28/2017 10:01 End Date: 04/28/2017 10:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-276699/1	1	T	10:01	X																								
LCS 240-276699/2	1	T	10:01	X																								
240-78543-S-2 DU	1	T	10:01	X																								
ZZZZZZ			10:01																									
ZZZZZZ			10:01																									
ZZZZZZ			10:01																									
ZZZZZZ			10:01																									
240-78519-2	1	T	10:01	X																								
ZZZZZZ			10:01																									
ZZZZZZ			10:01																									
ZZZZZZ			10:01																									
ZZZZZZ			10:01																									
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ZZZZZZ			10:01																									
ZZZZZZ			10:01																									
ZZZZZZ			10:38																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Instrument ID: ERNIE Analysis Method: SM 4500 P E

Start Date: 04/22/2017 12:57 End Date: 04/22/2017 12:57

Lab Sample Id	D/F	Type	Time	Analytes																								
				Orthophosphosasp																								
CCV 240-275820/1	1		12:57	X																								
CCB 240-275820/2	1		12:57	X																								
MB 240-275820/3	1	T	12:57	X																								
LCS 240-275820/4	1	T	12:57	X																								
240-78519-2	10	T	12:57	X																								
240-78519-2 MS	10	T	12:57	X																								
240-78519-2 MSD	10	T	12:57	X																								
CCV 240-275820/8	1		12:57	X																								
CCB 240-275820/9	1		12:57	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 276988 Batch Start Date: 05/01/17 10:44 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 B-1997 Batch End Date: 05/01/17 14:32

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	AdjustedpH	WCNH31000 00048	WCWIBBYNUTRIE 00074
MB 240-276988/1		4500 NH3 B-1997, 4500 NH3 C-1997		x	50 mL	50 mL	x SU		
LCS 240-276988/2		4500 NH3 B-1997, 4500 NH3 C-1997		x	50 mL	50 mL	x SU		50 mL
240-78295-M-2	MRC-MW14B-041817	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		
240-78295-M-5	MRC-MW72B-041817	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		
240-78372-D-1 MS		4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU	0.2 mL	
240-78372-D-1 MSD		4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU	0.2 mL	
240-78379-M-2	MRC-MW81B-041917	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		
240-78379-M-4	MRC-MW48A-041917	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		
240-78519-L-2	MRC-MW25A-042117	4500 NH3 B-1997, 4500 NH3 C-1997	T	x	50 mL	50 mL	x SU		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 276988 Batch Start Date: 05/01/17 10:44 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 B-1997 Batch End Date: 05/01/17 14:32

Batch Notes	
Base used for pH adjustment	2997224
Batch Comment	beakers 2975240
Borate Buffer Dispenser ID	2997247
Boric Acid Dispenser ID	2997196
Distilliation Unit ID	distillation block in wet prep
Distillation Temperature	162 Degrees C
Glass Beads Lot #	Hengar 09/30/2016
Phenanthroline ID	2959101
Pipette ID	B5 C6 E5

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 276992 Batch Start Date: 05/01/17 15:31 Batch Analyst: Sanford, Julie

Batch Method: 4500 NH3 C-1997 Batch End Date: 05/01/17 16:04

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TitrantVolume1			
MB 240-276988/1-A		4500 NH3 C-1997		50 mL	50 mL	0.00 mL			
LCS 240-276988/2-A		4500 NH3 C-1997		50 mL	50 mL	1.65 mL			
240-78295-M-2-A	MRC-MW14B-041817	4500 NH3 C-1997	T	50 mL	50 mL	0.10 mL			
240-78295-M-5-A	MRC-MW72B-041817	4500 NH3 C-1997	T	50 mL	50 mL	0.10 mL			
240-78372-D-1-B MS		4500 NH3 C-1997	T	50 mL	50 mL	0.80 mL			
240-78372-D-1-C MSD		4500 NH3 C-1997	T	50 mL	50 mL	0.85 mL			
240-78379-M-2-A	MRC-MW81B-041917	4500 NH3 C-1997	T	50 mL	50 mL	0.05 mL			
240-78379-M-4-A	MRC-MW48A-041917	4500 NH3 C-1997	T	50 mL	50 mL	0.05 mL			
240-78519-L-2-A	MRC-MW25A-042117	4500 NH3 C-1997	T	50 mL	50 mL	0.10 mL			

Batch Notes	
Batch Comment	indicator 2914203
Sulfuric Acid Lot Number	3017599
Nominal Amount Used	50 mL
Normality of First Titrant	0.0200 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 276867 Batch Start Date: 04/29/17 11:53 Batch Analyst: Grossman, Lucas

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	FinalAmount	WCPHENOMINER 00017			
LCS 240-276867/4		2320B-1997		InitialAmount is blank	50 mL	50 mL			
MB 240-276867/5		2320B-1997		InitialAmount is blank	50 mL				
240-78295-N-2	MRC-MW14B-041817	2320B-1997	T	InitialAmount is blank	50 mL				
LCS 240-276867/8		2320B-1997		InitialAmount is blank	50 mL	50 mL			
MB 240-276867/9		2320B-1997		InitialAmount is blank	50 mL				
240-78295-N-5	MRC-MW72B-041817	2320B-1997	T	InitialAmount is blank	50 mL				
240-78295-N-5 DU	MRC-MW72B-041817	2320B-1997	T	InitialAmount is blank	50 mL				

Batch Notes	
pH Buffer 1 ID	4-2971169
pH Buffer 2 ID	7-3020288
pH Buffer 3 ID	10-2951042
pH Buffer 4 ID	12-3003588
Sulfuric Acid Lot Number	3017600
Nominal Amount Used	50 mL
Probe ID	112
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 277255 Batch Start Date: 05/03/17 07:39 Batch Analyst: Grossman, Lucas

Batch Method: 2320B-1997 Batch End Date: 05/03/17 09:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
LCS 240-277255/2		2320B-1997		50 mL	8.74 SU	0 mL	0 mL	0 mL	0 mL
MB 240-277255/3		2320B-1997		50 mL	5.78 SU	0 mL	0 mL	0 mL	0 mL
240-78548-F-1 DU		2320B-1997	T	50 mL	7.94 SU	0 mL	0 mL	0 mL	0 mL
240-78379-L-2	MRC-MW81B-041917	2320B-1997	T	50 mL	6.76 SU	0 mL	0 mL	0 mL	0 mL
240-78379-L-4	MRC-MW48A-041917	2320B-1997	T	50 mL	6.09 SU	0 mL	0 mL	0 mL	0 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
LCS 240-277255/2		2320B-1997		18.55 mL	18.55 mL	Case 1	0 mg/L	0 mg/L	371 mg/L
MB 240-277255/3		2320B-1997		0.05 mL	0.05 mL	Case 1	0 mg/L	0 mg/L	1 mg/L
240-78548-F-1 DU		2320B-1997	T	9.40 mL	9.4 mL	Case 1	0 mg/L	0 mg/L	188 mg/L
240-78379-L-2	MRC-MW81B-041917	2320B-1997	T	7.55 mL	7.55 mL	Case 1	0 mg/L	0 mg/L	151 mg/L
240-78379-L-4	MRC-MW48A-041917	2320B-1997	T	3.95 mL	3.95 mL	Case 1	0 mg/L	0 mg/L	79 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WCPHENOMINER 00017		
LCS 240-277255/2		2320B-1997		0 mg/L	371 mg/L	50 mL	50 mL		
MB 240-277255/3		2320B-1997		0 mg/L	1 mg/L	50 mL			
240-78548-F-1 DU		2320B-1997	T	0 mg/L	188 mg/L	50 mL			
240-78379-L-2	MRC-MW81B-041917	2320B-1997	T	0 mg/L	151 mg/L	50 mL			
240-78379-L-4	MRC-MW48A-041917	2320B-1997	T	0 mg/L	79 mg/L	50 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 277255 Batch Start Date: 05/03/17 07:39 Batch Analyst: Grossman, Lucas

Batch Method: 2320B-1997 Batch End Date: 05/03/17 09:05

Batch Notes	
pH Buffer 1 ID	4-2971169
pH Buffer 2 ID	7-3020288
pH Buffer 3 ID	10-2951042
pH Buffer 4 ID	12-3003588
Sulfuric Acid Lot Number	3017600
Nominal Amount Used	50 mL
pH Meter ID	Randolph
Pipette ID	C4
Probe ID	WCP 125
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 277592 Batch Start Date: 05/04/17 06:56 Batch Analyst: Weimer, Joshua W

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	FinalAmount	WCPHENOMINER 00017			
LCS 240-277592/2		2320B-1997		InitialAmount is blank	50 mL	50 mL			
MB 240-277592/3		2320B-1997		InitialAmount is blank	50 mL				
240-78518-I-2 DU		2320B-1997	T	InitialAmount is blank	50 mL				
240-78519-K-2	MRC-MW25A-042117	2320B-1997	T	InitialAmount is blank	50 mL				

Batch Notes	
pH Buffer 1 ID	4-3004247
pH Buffer 2 ID	7-3020288
pH Buffer 3 ID	10-2951042
pH Buffer 4 ID	12-2971173
Sulfuric Acid Lot Number	3017600
Nominal Amount Used	50 mL
Probe ID	114
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 274398 Batch Start Date: 04/12/17 10:47 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00282	WCICLCS 00603			
STD1 240-274398/1 IC		300.0		5 mL	0.025 mL				
STD2 240-274398/2 IC		300.0		5 mL	0.125 mL				
STD3 240-274398/3 IC		300.0		5 mL	0.25 mL				
STD4 240-274398/4 IC		300.0		5 mL	0.5 mL				
STD5 240-274398/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-274398/6 IC		300.0		5 mL	2 mL				
STD7 240-274398/7 IC		300.0		5 mL	2.5 mL				
STD8 240-274398/8 IC		300.0		5 mL	3.75 mL				
STD9 240-274398/9 IC		300.0		5 mL	5 mL				
ICV 240-274398/10		300.0		5 mL		5 mL			
ICB 240-274398/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 274399 Batch Start Date: 04/12/17 10:47 Batch Analyst: Nolle, Laura C

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00282	WCICLCS 00603			
STD1 240-274399/1 IC		300.0		5 mL	0.025 mL				
STD2 240-274399/2 IC		300.0		5 mL	0.125 mL				
STD3 240-274399/3 IC		300.0		5 mL	0.25 mL				
STD4 240-274399/4 IC		300.0		5 mL	0.5 mL				
STD5 240-274399/5 ICRT		300.0		5 mL	1.25 mL				
STD6 240-274399/6 IC		300.0		5 mL	2 mL				
STD7 240-274399/7 IC		300.0		5 mL	2.5 mL				
STD8 240-274399/8 IC		300.0		5 mL	3.75 mL				
STD9 240-274399/9 IC		300.0		5 mL	5 mL				
ICV 240-274399/10		300.0		5 mL		5 mL			
ICB 240-274399/11		300.0		5 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 275386 Batch Start Date: 04/19/17 09:49 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00766	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-275386/1		300.0		5 mL	5 mL				
CCB 240-275386/2		300.0		5 mL					
MB 240-275386/3		300.0		5 mL					
LCS 240-275386/4		300.0		5 mL		5 mL			
240-78295-N-5	MRC-MW72B-041817	300.0	T	5 mL					
240-78295-N-5 MS	MRC-MW72B-041817	300.0	T	5 mL			0.1 mL	0.1 mL	
240-78295-N-5 MSD	MRC-MW72B-041817	300.0	T	5 mL			0.1 mL	0.1 mL	
240-78295-N-2	MRC-MW14B-041817	300.0	T	5 mL					
240-78295-N-2	MRC-MW14B-041817	300.0	T	5 mL					
CCV 240-275386/13		300.0		5 mL	5 mL				
CCB 240-275386/14		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 275387 Batch Start Date: 04/19/17 09:49 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00766	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-275387/1		300.0		5 mL	5 mL				
CCB 240-275387/2		300.0		5 mL					
MB 240-275387/3		300.0		5 mL					
LCS 240-275387/4		300.0		5 mL		5 mL			
240-78295-N-5	MRC-MW72B-041817	300.0	T	5 mL					
240-78295-N-5 MS	MRC-MW72B-041817	300.0	T	5 mL			0.1 mL	0.1 mL	
240-78295-N-5 MSD	MRC-MW72B-041817	300.0	T	5 mL			0.1 mL	0.1 mL	
240-78295-N-2	MRC-MW14B-041817	300.0	T	5 mL					
240-78295-N-2	MRC-MW14B-041817	300.0	T	5 mL					
CCV 240-275387/13		300.0		5 mL	5 mL				
CCB 240-275387/14		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 275511 Batch Start Date: 04/20/17 10:07 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00766	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-275511/1		300.0		5 mL	5 mL				
CCB 240-275511/2		300.0		5 mL					
MB 240-275511/3		300.0		5 mL					
LCS 240-275511/4		300.0		5 mL		5 mL			
CCV 240-275511/13		300.0		5 mL	5 mL				
CCB 240-275511/14		300.0		5 mL					
240-78317-F-4 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-78317-F-4 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	
240-78379-N-2	MRC-MW81B-041917	300.0	T	5 mL					
240-78379-N-4	MRC-MW48A-041917	300.0	T	5 mL					
CCV 240-275511/25		300.0		5 mL	5 mL				
CCB 240-275511/26		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 275512 Batch Start Date: 04/20/17 10:07 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00766	WCICLCS 00603	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-275512/1		300.0		5 mL	5 mL				
CCB 240-275512/2		300.0		5 mL					
MB 240-275512/3		300.0		5 mL					
LCS 240-275512/4		300.0		5 mL		5 mL			
CCV 240-275512/13		300.0		5 mL	5 mL				
CCB 240-275512/14		300.0		5 mL					
240-78317-F-4 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-78317-F-4 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	
240-78379-N-2	MRC-MW81B-041917	300.0	T	5 mL					
240-78379-N-4	MRC-MW48A-041917	300.0	T	5 mL					
CCV 240-275512/25		300.0		5 mL	5 mL				
CCB 240-275512/26		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 275818 Batch Start Date: 04/22/17 16:49 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00766	WCICLCS 00604	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-275818/1		300.0		5 mL	5 mL				
CCB 240-275818/2		300.0		5 mL					
MB 240-275818/3		300.0		5 mL					
LCS 240-275818/4		300.0		5 mL		5 mL			
240-78518-J-4 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-78518-J-4 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-275818/12		300.0		5 mL	5 mL				
CCB 240-275818/13		300.0		5 mL					
240-78519-M-2	MRC-MW25A-042117	300.0	T	5 mL					
CCV 240-275818/18		300.0		5 mL	5 mL				
CCB 240-275818/19		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 275819 Batch Start Date: 04/22/17 16:49 Batch Analyst: Grossman, Lucas

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00766	WCICLCS 00604	WCICSOLNA1 00015	WCICSOLNB1 00014	
CCV 240-275819/1		300.0		5 mL	5 mL				
CCB 240-275819/2		300.0		5 mL					
MB 240-275819/3		300.0		5 mL					
LCS 240-275819/4		300.0		5 mL		5 mL			
240-78518-J-4 MS		300.0	T	5 mL			0.1 mL	0.1 mL	
240-78518-J-4 MSD		300.0	T	5 mL			0.1 mL	0.1 mL	
CCV 240-275819/12		300.0		5 mL	5 mL				
CCB 240-275819/13		300.0		5 mL					
240-78519-M-2	MRC-MW25A-042117	300.0	T	5 mL					
CCV 240-275819/18		300.0		5 mL	5 mL				
CCB 240-275819/19		300.0		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 270540 Batch Start Date: 03/14/17 12:45 Batch Analyst: Weimer, Joshua W

Batch Method: 4500 P E-1999 Batch End Date: 03/14/17 13:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00023			
IC 240-270540/1		4500 P E-1999		10 mL	10 mL				
IC 240-270540/2		4500 P E-1999		10 mL	10 mL	0.1 mL			
IC 240-270540/3		4500 P E-1999		10 mL	10 mL	0.2 mL			
IC 240-270540/4		4500 P E-1999		10 mL	10 mL	0.6 mL			
IC 240-270540/5		4500 P E-1999		10 mL	10 mL	1 mL			
IC 240-270540/6		4500 P E-1999		10 mL	10 mL	2 mL			
IC 240-270540/7		4500 P E-1999		10 mL	10 mL	4 mL			
IC 240-270540/8		4500 P E-1999		10 mL	10 mL	6 mL			
IC 240-270540/9		4500 P E-1999		10 mL	10 mL	8 mL			
IC 240-270540/10		4500 P E-1999		10 mL	10 mL	10 mL			
ICB 240-270540/12		4500 P E-1999		10 mL	10 mL				

Batch Notes	
Pipette ID	B8/C2/E1/F5

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 275410 Batch Start Date: 04/19/17 13:51 Batch Analyst: Grossman, Lucas

Batch Method: 4500 P E-1999 Batch End Date: 04/19/17 14:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00024	WCPHOS50PPM 00089	WCWIBBYNUTRIE 00072	AnalysisComment
CCV 240-275410/1		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-275410/2		4500 P E-1999		10 mL	10 mL				
MB 240-275410/3		4500 P E-1999		10 mL	10 mL				
LCS 240-275410/4		4500 P E-1999		10 mL	10 mL			1 mL	
240-78295-N-5	MRC-MW72B-041817	4500 P E-1999	T	10 mL	10 mL				
240-78295-N-5 MS	MRC-MW72B-041817	4500 P E-1999	T	10 mL	10 mL		0.1 mL		
240-78295-N-5 MSD	MRC-MW72B-041817	4500 P E-1999	T	10 mL	10 mL		0.1 mL		
240-78295-N-2	MRC-MW14B-041817	4500 P E-1999	T	10 mL	10 mL				Background: .031 Foreground: .059
CCV 240-275410/10		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-275410/11		4500 P E-1999		10 mL	10 mL				

Batch Notes	
Pipette ID	B2,E9

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 275582 Batch Start Date: 04/20/17 13:57 Batch Analyst: Nolle, Laura C

Batch Method: 4500 P E-1999 Batch End Date: 04/20/17 14:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00024	WCPHOS50PPM 00089	WCWIBBYNUTRIE 00072	
CCV 240-275582/1		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-275582/2		4500 P E-1999		10 mL	10 mL				
MB 240-275582/3		4500 P E-1999		10 mL	10 mL				
LCS 240-275582/4		4500 P E-1999		10 mL	10 mL			0.5 mL	
240-78379-N-4	MRC-MW48A-041917	4500 P E-1999	T	10 mL	10 mL				
240-78379-N-4 MS	MRC-MW48A-041917	4500 P E-1999	T	10 mL	10 mL		0.1 mL		
240-78379-N-4 MSD	MRC-MW48A-041917	4500 P E-1999	T	10 mL	10 mL		0.1 mL		
240-78379-N-2	MRC-MW81B-041917	4500 P E-1999	T	10 mL	10 mL				
CCV 240-275582/9		4500 P E-1999		10 mL	10 mL	5 mL			
CCB 240-275582/10		4500 P E-1999		10 mL	10 mL				

Batch Notes	
Pipette ID	B2,E9

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 276327 Batch Start Date: 04/26/17 05:05 Batch Analyst: Harshman, Tom

Batch Method: 9060 Batch End Date: 04/26/17 10:53

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WC LCS 00057	WC LCS 00058	WC TOC CCV 00353	WC TOC CCVL 00149
CCV 240-276327/2		9060		40 mL	40 mL			40 mL	
CCB 240-276327/3		9060		40 mL	40 mL				
MB 240-276327/4		9060		40 mL	40 mL				
LLCS 240-276327/5		9060		40 mL	40 mL		4 mL		
LCS 240-276327/6		9060		40 mL	40 mL	40 mL			
240-78206-I-2 MS		9060	D	40 mL	40 mL			20 mL	
240-78206-I-2 MSD		9060	D	40 mL	40 mL			20 mL	
240-78379-G-2	MRC-MW81B-041917	9060	D	40 mL	40 mL				
240-78379-H-4	MRC-MW48A-041917	9060	D	40 mL	40 mL				
CCVL 240-276327/14		9060		40 mL	40 mL				40 mL
CCB 240-276327/15		9060		40 mL	40 mL				
240-78295-I-2	MRC-MW14B-041817	9060	D	40 mL	40 mL				
240-78295-H-5	MRC-MW72B-041817	9060	D	40 mL	40 mL				
240-78519-G-2	MRC-MW25A-042117	9060	D	40 mL	40 mL				
CCV 240-276327/19		9060		40 mL	40 mL			40 mL	
CCVL 240-276327/20		9060		40 mL	40 mL				40 mL
CCB 240-276327/21		9060		40 mL	40 mL				

Batch Notes	
Phosphoric Acid ID	2959670
Sodium Persulfate ID	2959671

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 276095 Batch Start Date: 04/25/17 09:49 Batch Analyst: Weisend, Joseph

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	WeightOne%Diff
MB 240-276095/1		SM 2540C			100 mL	3.9186 g	3.9195 g	3.9192 g	Pass No Unit
LCS 240-276095/2		SM 2540C			50 mL	3.8920 g	3.9029 g	3.9025 g	Pass No Unit
240-78462-B-3 DU		SM 2540C	T	780 umhos/cm	100 mL	3.9097 g	3.9629 g	3.9634 g	Pass No Unit
240-78295-L-2	MRC-MW14B-041817	SM 2540C	T	1300 umhos/cm	100 mL	3.9229 g	4.0083 g	4.0078 g	Pass No Unit
240-78295-L-5	MRC-MW72B-041817	SM 2540C	T	70 umhos/cm	100 mL	3.9017 g	3.9044 g	3.9039 g	Pass No Unit

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3	Residue4
MB 240-276095/1		SM 2540C		N/A No Unit	N/A	0.0009 g	0.0006 g	N/A g	N/A g
LCS 240-276095/2		SM 2540C		N/A No Unit	N/A	0.0109 g	0.0105 g	N/A g	N/A g
240-78462-B-3 DU		SM 2540C	T	N/A No Unit	N/A	0.0532 g	0.0537 g	N/A g	N/A g
240-78295-L-2	MRC-MW14B-041817	SM 2540C	T	N/A No Unit	N/A	0.0854 g	0.0849 g	N/A g	N/A g
240-78295-L-5	MRC-MW72B-041817	SM 2540C	T	N/A No Unit	N/A	0.0027 g	0.0022 g	N/A g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WCPHENOVSOLID 00021			
MB 240-276095/1		SM 2540C		100 mL	OK				
LCS 240-276095/2		SM 2540C		100 mL	OK	50 mL			
240-78462-B-3 DU		SM 2540C	T	100 mL	OK				
240-78295-L-2	MRC-MW14B-041817	SM 2540C	T	100 mL	OK				
240-78295-L-5	MRC-MW72B-041817	SM 2540C	T	100 mL	OK				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 276095 Batch Start Date: 04/25/17 09:49 Batch Analyst: Weisend, Joseph

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	B048
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	4/26/17 1447
Constant Weight (WT2) Date/Time Out	4/26/17 1551
Uncorrected CW (Wt2) Temp In	180 Degrees C
Uncorrected CW (Wt2) Temp Out	180 Degrees C
Constant Weight (WT3) Date/time In	4/26/17 1652
Constant Weight (WT3) Date/Time Out	4/27/17 7:05
Uncorrected CW (Wt3) Temp In	180 Degrees C
Uncorrected CW (Wt3) Temp Out	180 Degrees C
Corrected Temperature in Oven	103 Degrees C
Date/Time Samples placed in Oven	04/25/17 10:38
Filter Paper ID	2793792
Nominal Amount Used	100 mL
Oven ID	O06/O01
Weight(WT1) Start Date/Time	4/26/17 0800
Weight(WT1) Date/Time Out	4/26/17 1313
Uncorrected Weight(WT1) Start Temp	180 Degrees C
Uncorrected Weight(WT1) Temp Out	180 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 276161 Batch Start Date: 04/25/17 13:06 Batch Analyst: Weisend, Joseph

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	WeightOne%Diff
MB 240-276161/1		SM 2540C			100 mL	3.9060 g	3.9052 g	3.9053 g	Pass No Unit
LCS 240-276161/2		SM 2540C			50 mL	3.8930 g	3.9016 g	3.9017 g	Pass No Unit
240-78317-F-3 DU		SM 2540C	T	190 umhos/cm	100 mL	3.8958 g	3.9079 g	3.9077 g	Pass No Unit
240-78379-N-2	MRC-MW81B-041917	SM 2540C	T	560 umhos/cm	100 mL	3.8857 g	3.9145 g	3.9143 g	Pass No Unit
240-78379-N-4	MRC-MW48A-041917	SM 2540C	T	650 umhos/cm	100 mL	3.8907 g	3.9243 g	3.9248 g	Pass No Unit

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3	Residue4
MB 240-276161/1		SM 2540C		N/A No Unit	N/A	-0.0008 g	-0.0007 g	N/A g	N/A g
LCS 240-276161/2		SM 2540C		N/A No Unit	N/A	0.0086 g	0.0087 g	N/A g	N/A g
240-78317-F-3 DU		SM 2540C	T	N/A No Unit	N/A	0.0121 g	0.0119 g	N/A g	N/A g
240-78379-N-2	MRC-MW81B-041917	SM 2540C	T	N/A No Unit	N/A	0.0288 g	0.0286 g	N/A g	N/A g
240-78379-N-4	MRC-MW48A-041917	SM 2540C	T	N/A No Unit	N/A	0.0336 g	0.0341 g	N/A g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WCPHENOVSOLID 00021			
MB 240-276161/1		SM 2540C		100 mL	OK				
LCS 240-276161/2		SM 2540C		100 mL	OK	50 mL			
240-78317-F-3 DU		SM 2540C	T	100 mL	OK				
240-78379-N-2	MRC-MW81B-041917	SM 2540C	T	100 mL	OK				
240-78379-N-4	MRC-MW48A-041917	SM 2540C	T	100 mL	OK				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 276161 Batch Start Date: 04/25/17 13:06 Batch Analyst: Weisend, Joseph

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	B048
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	4/26/17 1418
Constant Weight (WT2) Date/Time Out	4/26/17 1524
Uncorrected CW (Wt2) Temp In	180 Degrees C
Uncorrected CW (Wt2) Temp Out	180 Degrees C
Constant Weight (WT3) Date/time In	4/26/17 1607
Constant Weight (WT3) Date/Time Out	4/27/17 7:05
Uncorrected CW (Wt3) Temp In	180 Degrees C
Uncorrected CW (Wt3) Temp Out	180 Degrees C
Corrected Temperature in Oven	103 Degrees C
Date/Time Samples placed in Oven	04/25/17 15:34
Filter Paper ID	2793792
Nominal Amount Used	100 mL
Oven ID	O06/O01
Weight(WT1) Start Date/Time	4/26/17 0800
Weight(WT1) Date/Time Out	4/26/17 1313
Uncorrected Weight(WT1) Start Temp	180 Degrees C
Uncorrected Weight(WT1) Temp Out	180 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 276699 Batch Start Date: 04/28/17 10:01 Batch Analyst: Burns, Jill

Batch Method: SM 2540C Batch End Date: 05/02/17 07:23

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	Weight3
MB 240-276699/1		SM 2540C			100 mL	3.8900 g	3.8909 g	3.8905 g	
LCS 240-276699/2		SM 2540C			50 mL	3.8549 g	3.8670 g	3.8671 g	
240-78543-S-2 DU		SM 2540C	T	840 umhos/cm	100 mL	3.8783 g	3.9362 g	3.9378 g	3.9376 g
240-78519-K-2	MRC-MW25A-042117	SM 2540C	T	620 umhos/cm	100 mL	3.8731 g	3.9104 g	3.9100 g	

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 240-276699/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0009 g	0.0005 g	N/A g
LCS 240-276699/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0121 g	0.0122 g	N/A g
240-78543-S-2 DU		SM 2540C	T	Fail >0.5mg No Unit	Pass No Unit	N/A	0.0579 g	0.0595 g	0.0593 g
240-78519-K-2	MRC-MW25A-042117	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0373 g	0.0369 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	WCPHENOVSOLID 00021		
MB 240-276699/1		SM 2540C		N/A g	100 mL	OK			
LCS 240-276699/2		SM 2540C		N/A g	100 mL	OK	50 mL		
240-78543-S-2 DU		SM 2540C	T	N/A g	100 mL	OK			
240-78519-K-2	MRC-MW25A-042117	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 276699 Batch Start Date: 04/28/17 10:01 Batch Analyst: Burns, Jill

Batch Method: SM 2540C Batch End Date: 05/02/17 07:23

Batch Notes	
Balance ID	B048
Conductivity Meter ID	MYRON
Constant Weight (WT2) Date/Time In	05/01/17 11:37
Constant Weight (WT2) Date/Time Out	05/01/17 12:37
Constant Weight (WT2) Temp In	178 Degrees C
Constant Weight (WT2) Temp Out	178 Degrees C
Constant Weight (WT3) Date/time In	05/01/17 14:54
Constant Weight (WT3) Date/Time Out	5/2/17 7:00
Constant Weight (WT3) Temp In	180 Degrees C
Constant Weight (WT3) Temp Out	180 Degrees C
Corrected Temperature in Oven	103 Degrees C
Corrected Temperature out of Oven	104 Degrees C
Date/Time Samples placed in Oven	04/28/17 10:15
Date/Time Samples Removed from Oven	05/01/17 08:18
Filter Paper ID	2793792
Nominal Amount Used	100 mL
Oven ID	O06/O01
Weight(WT1) Start Date/Time	05/01/17 08:18
Weight(WT1) Date/Time Out	05/01/17 10:07
Weight(WT1) Start Temp	180 Degrees C
Weight(WT1) Temp Out	180 Degrees C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 270540 Batch Start Date: 03/14/17 12:45 Batch Analyst: Weimer, Joshua W

Batch Method: SM 4500 P E Batch End Date: 03/14/17 13:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCWIBBYNUTRIE 00072			
ICV 240-270540/11		SM 4500 P E		10 mL	10 mL	1 mL			

Batch Notes	
Pipette ID	B8/C2/E1/F5

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-78295-1

SDG No.:

Batch Number: 275820 Batch Start Date: 04/22/17 12:50 Batch Analyst: Grossman, Lucas

Batch Method: SM 4500 P E Batch End Date: 04/22/17 12:59

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPhos 1ppm 00024	WCPHOS50PPM 00089	WCWIBBYNUTRIE 00072	
CCV 240-275820/1		SM 4500 P E		10 mL	10 mL	5 mL			
CCB 240-275820/2		SM 4500 P E		10 mL	10 mL				
MB 240-275820/3		SM 4500 P E		10 mL	10 mL				
LCS 240-275820/4		SM 4500 P E		10 mL	10 mL			1 mL	
240-78519-M-2	MRC-MW25A-042117	SM 4500 P E	T	10 mL	10 mL				
240-78519-M-2 MS	MRC-MW25A-042117	SM 4500 P E	T	10 mL	10 mL		0.1 mL		
240-78519-M-2 MSD	MRC-MW25A-042117	SM 4500 P E	T	10 mL	10 mL		0.1 mL		
CCV 240-275820/8		SM 4500 P E		10 mL	10 mL	5 mL			
CCB 240-275820/9		SM 4500 P E		10 mL	10 mL				

Batch Notes	
Pipette ID	B2,E9

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

VOA Calibration Calculations:

Initial Calibration 3/30/2017
Instrument A3UX12

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.5	37345	1093994	20	1.3655	1.3655
1	73866	1109963	20	1.3310	1.331
10	773422	1102662	20	1.4028	1.4028
20	1564666	1131500	20	1.3828	1.3828
40	3203116	1131683	20	1.4152	1.4152
60	4930791	1154313	20	1.4239	1.4239
			Average	1.3869	1.3869
			Standard Deviation	0.0347	
			RSD	0.0250	
			%RSD	2.5034	2.5

Internal standard for benzene is fluorobenzene

Continuing Calibration 04/27/2017@ 17:12
Instrument A3UX12

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
20	1530343	1114904	20	1.3726	-1.0242319	1.373	-1

MRC
SDG 240-78295-1

SAMPLE IDENTIFICATION	MRC-MW25A-042117	SAMPLE IDENTIFICATION	MRC-MW25A-042117 MS
COMPOUND	trichloroethene	COMPOUND	trichloroethene
COMPOUND AREA	612837	COMPOUND AREA	1028085
INTERNAL STANDARD AMOUNT (ng)	20	INTERNAL STANDARD AMOUNT (ng)	20
DILUTION FACTOR	5	DILUTION FACTOR	5
INTERNAL STANDARD AREA	1041025	INTERNAL STANDARD AREA	1052008
AVERAGE RRF	0.349	AVERAGE RRF	0.349
VOLUME OF SAMPLE	5	VOLUME OF SAMPLE	5
VOLUME OF EXTRACT	5.00	VOLUME OF EXTRACT	5.00
CONCENTRATION =	168.68 ug/L	CONCENTRATION =	280.02 ug/L

SPIKE ADDED	100
SAMPLE CONCENTARTION	168.68
MS CONCENTRATION	280
PERCENT RECOVERY	111.32

SVOA Calibration Calculations:

Initial Calibration 4/20/2017
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.01	3250	173407	0.5	0.93710	0.9371
0.02	6527	178826	0.5	0.91248	0.9125
0.05	15645	176325	0.5	0.88728	0.8873
0.1	31361	184600	0.5	0.84943	0.8494
0.2	59327	183995	0.5	0.80610	0.8061
0.4	120608	181158	0.5	0.83220	0.8322
0.8	248676	182565	0.5	0.85133	0.8513
			Average	0.86799	0.868
			Standard Deviation	0.0463	
			RSD	0.0533	
			%RSD	5.33409	5.3

Continuing Calibration 05/04/2017 @ 00:05
Instrument CHZ.i

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
0.1	35775	164675	0.5	1.0862	25.141757	1.086	25.1

MRC Groundwater
SDG 240-78295-1

SAMPLE IDENTIFICATION	MRC-MW14B-041817	
COMPOUND	1,4-Dioxane	
COMPOUND AREA	127538	
INTERNAL STANDARD AMOUNT (ng)	0.5	
DILUTION FACTOR	20	
INTERNAL STANDARD AREA	160826	
AVERAGE RRF	0.868	
VOLUME OF SAMPLE	0.1	
VOLUME OF EXTRACT	2	
CONCENTRATION =	182.7232	ug/L

RSK175 Calibration Calculations:

Initial Calibration	10/15/2016
Instrument	ZPID

Ethane

Analyte Concentration	Analyte Response	RRF	Reported RRF
0.486	4466	9189.3004	13684
3.74	51341	13727.5401	13730
18.7	268353	14350.4278	14353
187	2727568	14585.9251	14588
748	10875652	14539.6417	14544
3739	53866713	14406.7165	14408
	Average	13466.5919	14217.75
	Standard Deviation	2118.1435	
	RSD	0.1573	
	%RSD	15.7289	2.9

Calculation RSK175	**Sample**		
	MRC-MW14B-041817		
Target Analyte	Ethane		
Analyte Response	307939		
Average CF	14217.7545		
Dilution Factor (DF)	1		
Final Volume	33		
Initial Volume	33		
	on column amount	21.65876475	
		21.66	ug/L

Sample Report

Sample Table

Sample Name	240-78379-p-4-a
Data File Name	099SMPL.d
Data Path Name	D:\Analytical Runs\I10042517B.b
Acq Date Time	2017-04-25T17:30:28-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

SAMPLE MRC-MW48A-041917

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	6	2	NoGas	2.462	2.462	8.76	529861	0.00	10000	
Be	9	6	2	NoGas	2.388	2.388	1.32	24352	0.01	2000	
B	11	45	2	NoGas	19.484	19.484	1.19	232884	0.01	300	
Na	23	45	1	He	52146.117	52146.117	1.94	25524475	0.20	500000	
Mg	24	45	1	He	14236.418	14236.418	1.74	6324533	0.23	500000	
Al	27	45	1	He	59.438	59.438	3.31	8749	0.68	200000	
K	39	45	1	He	314.027	314.027	2.25	94542	0.33	500000	
Ca	44	45	1	He	1784.059	1784.059	2.83	27245	6.55	500000	
Ti	47	45	1	He	1.080	1.080	22.41	137	0.79	2500	
V	51	45	1	He	0.505	0.505	20.08	2247	0.02	10000	
Cr	52	45	1	He	0.378	0.378	4.85	2901	0.01	10000	
Mn	55	45	1	He	12105.676	12105.676	2.89	34456433	0.04	10000	>LDR
Fe	56	45	1	He	85605.330	85605.330	1.97	362500741	0.02	200000	
Co	59	45	1	He	130.649	130.649	0.59	1307247	0.01	5000	
Ni	60	45	1	He	33.884	33.884	0.65	91528	0.04	10000	
Cu	63	45	1	He	0.433	0.433	5.78	4938	0.01	10000	
Zn	66	45	1	He	5.390	5.390	3.33	6014	0.09	10000	
As	75	115	1	He	2.943	2.943	1.69	1895	0.16	10000	
Se	78	115	1	He	1.313	1.313	7.44	61	2.15	10000	
Sr	88	103	1	He	45.944	45.944	1.50	148575	0.03	10000	
Mo	95	103	1	He	0.136	0.136	26.89	1111	0.01	2000	
Ag	107	103	1	He	0.015	0.015	16.27	280	0.01	300	
Cd	111	115	1	He	0.052	0.052	57.60	199	0.03	4000	
Sn	118	115	1	He	5.521	5.521	3.06	17913	0.03	2000	
Sb	123	115	1	He	0.428	0.428	22.68	1345	0.03	200	
Ba	137	115	1	He	146.906	146.906	0.64	190243	0.08	10000	
W	182	159	1	He	0.532	0.532	16.84	9859	0.01	2500	
Tl	205	165	1	He	0.141	0.141	15.13	4916	0.00	2000	
Pb	208	165	1	He	0.410	0.410	10.40	19926	0.00	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	6605716	1.17	6785848	97.35	60	120	
Sc	45	1	He	627907	1.01	660004	95.14	60	120	
Sc	45	2	NoGas	24748230	1.36	21816384	113.44	60	120	
Rh	103	1	He	4504951	0.87	4605230	97.82	60	120	
In	115	1	He	1342793	0.88	1430831	93.85	60	120	
Tb	159	1	He	6123599	0.75	6107786	100.26	60	120	
Ho	165	1	He	6247909	1.42	6242206	100.09	60	120	
Bi	209	1	He	4558606	0.69	4838581	94.21	60	120	

TestAmerica Laboratories
Initial Calibration RRF Report

Method: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\300_Veronica.m
Instrument: VERONICA Lims Location: 240
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 12-Apr-2017 14:26:53
No.Compounds:9

Initial Calibration Batches

Ical Batch: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b
Inj Date : 12-Apr-2017 10:47:00, Sublist: chrom-300_Veronica*sub2

Limit Group: WET IC ICAL

Detector 1: IC 0001

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	b	M1	M2	Rse	Rsd/R^2
1 Fluoride	18121360	23214292	24878750	25829080	26994530	26632126	26458280	26104372	25724985		24884197		11.2	Avg 11.2
2 Chloride	16710120	16323998	16314503	16270328	16579110	16409476	16307725	16325206	16363094		16400396		0.9	Avg 0.9
3 Nitrite as N	36048160	38191028	38767746	38982032	39486618	38621169	38063022	37500330	36988390		38072055		2.8	Avg 2.8
4 Bromide	6109675	6603912	6785889	6943361	7217329	7189676	7186313	7227854	7267778		6947976		5.6	Avg 5.6
5 Nitrate as N	38632180	38184176	38631716	39100351	40424136	40207633	40161148	40298206	40579654		39579911		2.4	Avg 2.4
6 Sulfate	9613778	11298858	11647338	11823137	12179736	12075929	12050536	12065920	12074886		11647791		7.0	Avg 7.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\VERONICA\20170419-64198.b\240-0064198-008_09_ECD_1.d
Lims ID: 240-78295-N-5
Client ID: MRC-MW72B-041817
Sample Type: Client
Inject. Date: 19-Apr-2017 14:42:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 240-0064198-008
Misc. Info.: 240-78295-n-5
Operator ID: Instrument ID: VERONICA

Method: \\ChromNA\Canton\ChromData\VERONICA\20170419-64198.b\300_Veronica.m
Limit Group: WET IC ICAL
Last Update: 20-Apr-2017 08:46:37 Calib Date: 12-Apr-2017 13:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\VERONICA\20170412-63987.b\240-0063987-009_10_ECD_1.d

Column 1 : Det: IC 0001
Process Host: XAWRK036

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1	Fluoride	3.947	3.957	-0.010	249119	0.0100	
2	Chloride	6.360	6.350	0.010	228301430	13.9	
3	Nitrite as N	7.767	7.953	-0.186	4050553	0.1064	
4	Bromide	10.110	10.093	0.017	14291463	2.06	
5	Nitrate as N	11.683	11.670	0.013	17223179	0.4351	
6	Sulfate	14.577	14.350	0.227	14847602	1.27	
S 7	Nitrate Nitrite as N					0.5415	
10	Nitrite as NO2		0.000			ND	
11	Nitrate as NO3		0.000			ND	

CHLORIDE 228301430 / 16400396 = 13.9
NITRITE 4050553 / 38072055 = 0.1064
NITRATE 17223179 / 39579911 = 0.4351
SULFATE 14847602 / 11647791 = 1.27

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 12, 2017**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / 1,4-DIOXANE / METALS**
MRC 2017 GW – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-80637-1

SAMPLES: 1 / Groundwater / VOC / 1,4-Dioxane / Metals

MRC-MW16A-060717

OVERVIEW

The sample set for MRC 2017 GW, SDG 240-80637-1, consists of one (1) groundwater environmental sample. The sample was analyzed for volatile organic compounds (VOCs), 1,4-dioxane, and metals. No field duplicate pairs are included in this SDG.

The sample was collected by Tetra Tech on June 7, 2017 and analyzed by Test America. Analyses were conducted in accordance with SW-846 Methods 8260C (for VOCs), 6020A (for metals), and 7470A (for mercury) and EPA Method 522 MOD (for 1,4-dioxane) analysis and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method blanks, interference check sample results, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, ICP serial dilution results, internal standard areas and recoveries, analyte identification, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- The VOC continuing calibration performed on 06/15/17 at 12:56 on instrument A3UX12 had percent differences (%Ds) for acetone and 2-butanone that were greater than the 20% quality control limit. Sample MRC-MW16A-060717 was affected. Non-detected results for the aforementioned analytes were qualified as estimated (UJ) in the affected sample.

- The following metals were detected in the laboratory method blank associated with preparation batch 282755 affecting sample MRC-MW16A-060717 at the following maximum concentrations:

Analyte	Maximum Concentration	< or > Reporting Limit (RL)
Copper	3.35 ug/L	> RL
Zinc	15.2 ug/L	< RL

Sample dilution factors, if applicable, were considered in applying sample specific action levels. No action was taken for zinc because the detected concentration of zinc in sample MRC-MW16A-060717 was greater than the RL. The detected concentration of copper in sample MRC-MW16A-060717 was greater than the RL but less than 10x the blank concentration and was qualified as non-detected (U) due to blank contamination.

- Detected results below the RL but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Although there are additional samples listed on the chain of custody, this validation report only applies to sample MRC-MW16A-060717.

The chain of custody requested VOCs (including tentatively identified compounds [TICs]) and 1,4-dioxane analyses for MRC-MW16A-060717. The laboratory report also included results for metals and did not include results for TICs. The laboratory case narrative report indicated that the lab received a metals container for MRC-MW16A-060717. The client called the laboratory to let the laboratory know that the metals analysis was inadvertently left off of the chain of custody and asked the laboratory to proceed with the metals analysis.

Non-detected results were reported to the MDL.

VOC sample MRC-MW16A-060717 was analyzed at a dilution factor of 2.5.

The VOC matrix spike (MS)/matrix spike duplicate (MSD) analysis 240-80623-A-4 (laboratory identifier) had MS and MSD percent recoveries (%Rs) that were less than the laboratory quality control limits for methylene chloride. No action was necessary because this MS/MSD was not performed on a sample from this SDG.

The 1,4-dioxane sample MRC-MW16A-060717 was analyzed at a dilution factor of 6.667.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Two VOC analytes had continuing calibration %Ds exceeding quality control limits resulting in qualification of associated non-detected results. One metals result was qualified as non-detected due to method blank contamination.

Other Factors Affecting Data Quality: Detected results above the RL but less than the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA “National Functional Guidelines for Organic Superfund Methods Data Review” (January 2017) and “National Functional Guidelines for Inorganic Superfund Methods Data Review” (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Leigh A. Ciofani

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-MW16A-060717		
SDG: 240-80637-1	LAB_ID	240-80637-1		
FRACTION: OV	SAMP_DATE	6/7/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.58	U	
1,1,2,2-TETRACHLOROETHANE		0.8	U	
1,1,2-TRICHLOROETHANE		0.85	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1	U	
1,1-DICHLOROETHANE		27		
1,1-DICHLOROETHENE		59		
1,2,4-TRICHLOROBENZENE		0.68	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.2	U	
1,2-DIBROMOETHANE		0.58	U	
1,2-DICHLOROBENZENE		0.65	U	
1,2-DICHLOROETHANE		0.75	U	
1,2-DICHLOROPROPANE		0.75	U	
1,3-DICHLOROBENZENE		0.8	U	
1,4-DICHLOROBENZENE		0.58	U	
2-BUTANONE		2.6	UJ	C
2-HEXANONE		3.1	U	
4-METHYL-2-PENTANONE		1.8	U	
ACETONE		4.4	UJ	C
BENZENE		0.71	J	P
BROMODICHLOROMETHANE		0.75	U	
BROMOFORM		1.1	U	
BROMOMETHANE		1.1	U	
CARBON DISULFIDE		0.85	U	
CARBON TETRACHLORIDE		0.88	U	
CHLOROBENZENE		0.8	U	
CHLORODIBROMOMETHANE		0.63	U	
CHLOROETHANE		1	U	
CHLOROFORM		0.78	U	
CHLOROMETHANE		1.1	U	
CIS-1,2-DICHLOROETHENE		10		
CIS-1,3-DICHLOROPROPENE		0.65	U	
CYCLOHEXANE		1.1	U	
DICHLORODIFLUOROMETHANE		1.3	U	
ETHYLBENZENE		0.65	U	
ISOPROPYLBENZENE		0.53	U	

PROJ_NO: 07776	NSAMPLE	MRC-MW16A-060717		
SDG: 240-80637-1	LAB_ID	240-80637-1		
FRACTION: OV	SAMP_DATE	6/7/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
METHYL ACETATE		3.6	U	
METHYL CYCLOHEXANE		1.1	U	
METHYL TERT-BUTYL ETHER		0.68	U	
METHYLENE CHLORIDE		1.3	U	
STYRENE		0.58	U	
TETRACHLOROETHENE		7.3		
TOLUENE		0.58	U	
TOTAL XYLENES		0.6	U	
TRANS-1,2-DICHLOROETHENE		0.73	U	
TRANS-1,3-DICHLOROPROPENE		0.78	U	
TRICHLOROETHENE		22		
TRICHLOROFLUOROMETHANE		1.3	U	
VINYL CHLORIDE		7.8		

PROJ_NO: 07776	NSAMPLE	MRC-MW16A-060717		
SDG: 240-80637-1	LAB_ID	240-80637-1		
FRACTION: OS	SAMP_DATE	6/7/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,4-DIOXANE		62		

PROJ_NO: 07776	NSAMPLE	MRC-MW16A-060717		
SDG: 240-80637-1	LAB_ID	240-80637-1		
FRACTION: M	SAMP_DATE	6/7/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ANTIMONY		0.74	J	P
ARSENIC		0.87	J	P
BARIUM		400		
BERYLLIUM		12		
CADMIUM		1.8		
CHROMIUM		0.98	U	
COBALT		400		
COPPER		9.2	U	A
LEAD		1.1		
MERCURY		0.13	U	
MOLYBDENUM		1.1	U	
NICKEL		390		
SELENIUM		1.8	J	P
SILVER		0.053	U	
THALLIUM		0.21	J	P
VANADIUM		0.82	U	
ZINC		620		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-80637-1

SDG No.:

Client Sample ID: MRC-MW16A-060717 | Lab Sample ID: 240-80637-1

Matrix: Water | Lab File ID: U1258056.D

Analysis Method: 8260C | Date Collected: 06/07/2017 15:44

Sample wt/vol: 5(mL) | Date Analyzed: 06/14/2017 20:49

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 283071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.58	U	2.5	0.58
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	2.5	0.80
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	2.5	1.0
79-00-5	1,1,2-Trichloroethane	0.85	U	2.5	0.85
75-34-3	1,1-Dichloroethane	27		2.5	0.63
75-35-4	1,1-Dichloroethene	59		2.5	0.68
120-82-1	1,2,4-Trichlorobenzene	0.68	U	2.5	0.68
96-12-8	1,2-Dibromo-3-Chloropropane	1.2	U	5.0	1.2
106-93-4	Ethylene Dibromide	0.58	U	2.5	0.58
95-50-1	1,2-Dichlorobenzene	0.65	U	2.5	0.65
107-06-2	1,2-Dichloroethane	0.75	U	2.5	0.75
78-87-5	1,2-Dichloropropane	0.75	U	2.5	0.75
541-73-1	1,3-Dichlorobenzene	0.80	U	2.5	0.80
106-46-7	1,4-Dichlorobenzene	0.58	U	2.5	0.58
78-93-3	2-Butanone (MEK)	2.6	U	25	2.6
591-78-6	2-Hexanone	3.1	U	25	3.1
108-10-1	4-Methyl-2-pentanone (MIBK)	1.8	U	25	1.8
67-64-1	Acetone	4.4	U	25	4.4
71-43-2	Benzene	0.71	J	2.5	0.70
75-27-4	Dichlorobromomethane	0.75	U	2.5	0.75
75-25-2	Bromoform	1.1	U	2.5	1.1
74-83-9	Bromomethane	1.1	U	2.5	1.1
75-15-0	Carbon disulfide	0.85	U	2.5	0.85
56-23-5	Carbon tetrachloride	0.88	U	2.5	0.88
108-90-7	Chlorobenzene	0.80	U	2.5	0.80
75-00-3	Chloroethane	1.0	U	2.5	1.0
67-66-3	Chloroform	0.78	U	2.5	0.78
74-87-3	Chloromethane	1.1	U	2.5	1.1
156-59-2	cis-1,2-Dichloroethene	10		2.5	0.75
10061-01-5	cis-1,3-Dichloropropene	0.65	U	2.5	0.65
110-82-7	Cyclohexane	1.1	U	2.5	1.1
124-48-1	Chlorodibromomethane	0.63	U	2.5	0.63
75-71-8	Dichlorodifluoromethane	1.3	U	2.5	1.3
100-41-4	Ethylbenzene	0.65	U	2.5	0.65
98-82-8	Isopropylbenzene	0.53	U	2.5	0.53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-80637-1

SDG No.:

Client Sample ID: MRC-MW16A-060717 | Lab Sample ID: 240-80637-1

Matrix: Water | Lab File ID: U1258056.D

Analysis Method: 8260C | Date Collected: 06/07/2017 15:44

Sample wt/vol: 5(mL) | Date Analyzed: 06/14/2017 20:49

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 283071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	3.6	U	25	3.6
1634-04-4	Methyl tert-butyl ether	0.68	U	2.5	0.68
108-87-2	Methylcyclohexane	1.1	U	2.5	1.1
75-09-2	Methylene Chloride	1.3	U	2.5	1.3
100-42-5	Styrene	0.58	U	2.5	0.58
127-18-4	Tetrachloroethene	7.3		2.5	0.75
108-88-3	Toluene	0.58	U	2.5	0.58
156-60-5	trans-1,2-Dichloroethene	0.73	U	2.5	0.73
10061-02-6	trans-1,3-Dichloropropene	0.78	U	2.5	0.78
79-01-6	Trichloroethene	22		2.5	0.83
75-69-4	Trichlorofluoromethane	1.3	U	2.5	1.3
75-01-4	Vinyl chloride	7.8		2.5	1.1
1330-20-7	Xylenes, Total	0.60	U	5.0	0.60

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	94		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		61-138

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-80637-1

SDG No.:

Client Sample ID: MRC-MW16A-060717 | Lab Sample ID: 240-80637-1

Matrix: Water | Lab File ID: Z25572_24.D

Analysis Method: 522 | Date Collected: 06/07/2017 15:44

Extract. Method: 3535A | Date Extracted: 06/21/2017 14:30

Sample wt/vol: 100(mL) | Date Analyzed: 06/22/2017 16:37

Con. Extract Vol.: 2000(uL) | Dilution Factor: 6.667

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 117803 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	62		1.3	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	84		46-130

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MRC-MW16A-060717 Lab Sample ID: 240-80637-1

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG ID.:

Matrix: Water Date Sampled: 06/07/2017 15:44

Reporting Basis: WET Date Received: 06/08/2017 10:05

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MRC-MW16A-060717 Lab Sample ID: 240-80637-1

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG ID.:

Matrix: Water Date Sampled: 06/07/2017 15:44

Reporting Basis: WET Date Received: 06/08/2017 10:05

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.74	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	0.87	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	400	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	12	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	1.8	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	400	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	9.2	2.0	1.7	ug/L		B	1	6020A
7439-98-7	Molybdenum	1.1	10	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	390	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.1	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	1.8	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.21	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-66-6	Zinc	620	20	15	ug/L		B	1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 GW

Report Number: 240-80637-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 522 1,4-Dioxane analysis was performed at the TestAmerica Burlington Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 6/8/2017 10:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.6º C, 1.0º C and 2.2º C.

The laboratory received a metals container for sample MRC-MW16A-060717 (240-80637-1) that was not listed on the Chain of Custody. The client called the laboratory and let the laboratory know he inadvertently left the metals analysis off the Chain of Custody. The client asked the laboratory to proceed with the metals analysis.

1,4-DIOXANE
Sample MRC-MW16A-060717 (240-80637-1) was analyzed for 1,4-Dioxane in accordance with EPA Method 522. The sample was prepared on 06/21/2017 and analyzed on 06/22/2017.

Sample MRC-MW16A-060717 (240-80637-1)[6.67X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Sample MRC-MW16A-060717 (240-80637-1) was analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The sample was analyzed on 06/14/2017.

Sample MRC-MW16A-060717 (240-80637-1)[2.5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 240-283071 was outside the method criteria for 2-butanone. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)
Sample MRC-MW16A-060717 (240-80637-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The sample was prepared on 06/12/2017 and analyzed on 06/13/2017 and 06/14/2017.

Copper was detected in method blank MB 240-282755/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Zinc was detected in method blank MB 240-282755/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY

Sample MRC-MW16A-060717 (240-80637-1) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The sample was prepared on 06/12/2017 and analyzed on 06/13/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-80637-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MRC 2017 GW

TestAmerica Job ID: 240-80637-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-80637-1	MRC-MW16A-060717	Water	06/07/17 15:44	06/08/17 10:05

TestAmerica Baltimore
7526 Connelley Drive
Suite F
Hanover, MD 21076
Phone: 410.766.2516 Fax:

1.0/C1.0
2.2/C2.2
0.6/C0.6

Chain of Custody Record

000505

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Mike Martin	Site Contact: Walt Payne	Date: 6/7/17	COC No:
Company Name: Tetra Tech EM.	Tel/Fax: 301 528-3022	Lab Contact: MCFadden	Carrier: Fed Ex	1 of 1 COCs
Address: 20251 Century Blvd	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20874	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
Phone: 301 528-3022	TAT if different from Below ☑ Standard			Walk-in Client:
Fax: 3000	☐ 2 weeks			Lab Sampling:
Project Name: Martin State Airport	☐ 1 week			
Site: MSA 2017 ground water Sampling	☐ 2 days			Job / SDG No.:
PO # 112IC09118	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs + TIC	1,4 Dioxane	Total metals	Diss metals	Geo	Dao	Perchlorate	Cl, NO3, NO2, ortho P	SO4, TDS	Alkalinity	Ammonia, Phosphate	DOC	MEE	Total Iron/Manganese	Sample Specific Notes:
TB-060717	6/7/17	—	G	AQ	2			2	-	-	-	-	-	-								
MW-51S-060717		1017			13			3	2	1	1	3	2	1								
MW-51I-060717		1140			8			3	2	1	1	-	-	1								
MW-51D-060717		1259			8			3	2	1	1	-	-	1								
MW-43S-060717		1025			12			3	2	1	1	3	2	-								MW-43S-060717
MW-18I-060717		1230			19			3	2	1	1	—	1	1	1	1	1	3	3	1		
MW-18S-060717		1425			23			3	2	1	1	3	2	-	1	1	1	3	3	1		
MRC-MW16A-060717	↓	1544	↓	↓	5			3	2	-	-	-	-	-	-	-	-	-	-	-	-	# 112IC07776 Middle River
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other								2	1	4	4	2	1	1	1	1	1	3	3	2	4	

240-80637 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☑ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt Payne	TT EMI	6/7/17 1930		TDC	06/08/17 1005
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 806037**

Canton Facility

Client Tetra Tech Site Name MSA

Cooler unpacked by: DSO

Cooler Received on 06/08/17 Opened on 06/08/17

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

☐ See Multiple Cooler Form

1. Cooler temperature upon receipt
   IR GUN# IR-8 (CF **-0.4** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF **+0**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 each — Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? — Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? — Yes No
3. Shippers' packing slip attached to the cooler(s)? — Yes No
4. Did custody papers accompany the sample(s)? — Yes No
5. Were the custody papers relinquished & signed in the appropriate place? — Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? — Yes No
7. Did all bottles arrive in good condition (Unbroken)? — Yes No
8. Could all bottle labels be reconciled with the COC? — Yes No
9. Were correct bottle(s) used for the test(s) indicated? — Yes No
10. Sufficient quantity received to perform indicated analyses? — Yes No
11. Are these work share samples? — Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? — Yes No NA pH Strip Lot# **HC697954**
12. Were VOAs on the COC? — Yes No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. — Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # B705561VB — Yes No
15. Was a LL Hg or Me Hg trip blank present? _____ — Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

17. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative Login # : 580631

Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	36	1.0	1.0	Ice
"	"	2.2	2.2	"
		0.6	0.6	

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MRC-MW16A-060717	240-80637-F-1	Plastic 500ml - with Nitric Acid	<2	_____	_____

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab File ID: BFB3564.D BFB Injection Date: 06/06/2017

Instrument ID: A3UX12 BFB Injection Time: 16:56

Analysis Batch No.: 281802

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.4	
75	30.0 - 60.0 % of mass 95	48.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	75.7	
175	5.0 - 9.0 % of mass 174	5.8	(7.7) 1
176	95.0 - 101.0 % of mass 174	74.6	(98.6) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-281802/6	U1257879.D	06/06/2017	17:22
	STD8260 240-281802/7	U1257880a.D	06/06/2017	17:44
	STD8260 240-281802/8	U1257881.D	06/06/2017	18:07
	ICIS 240-281802/9	U1257882.D	06/06/2017	18:29
	STD8260 240-281802/10	U1257883.D	06/06/2017	18:52
	STD8260 240-281802/11	U1257884a.D	06/06/2017	19:14
	ICV 240-281802/12	U1257885.D	06/06/2017	19:37

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-80637-1 Analy Batch No.: 281802

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/06/2017 17:22 Calibration End Date: 06/06/2017 19:14 Calibration ID: 40321

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-281802/6	U1257879.D
Level 2	STD8260 240-281802/7	U1257880a.D
Level 3	STD8260 240-281802/8	U1257881.D
Level 4	ICIS 240-281802/9	U1257882.D
Level 5	STD8260 240-281802/10	U1257883.D
Level 6	STD8260 240-281802/11	U1257884a.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.3994	0.4914	0.5397	0.5294	0.4187	Ave		0.4757			0.1000	13.4		20.0			
Chloromethane	0.6102 0.4527	0.5106	0.4920	0.4810	0.4657	Ave		0.5020			0.1000	11.3		20.0			
Vinyl chloride	0.5113 0.4700	0.5029	0.5340	0.5220	0.4837	Ave		0.5040			0.1000	4.7		20.0			
Butadiene	+++++ 0.3926	0.5882	0.4792	0.4712	0.4165	Ave		0.4695				16.1		20.0			
Bromomethane	0.3485 0.2724	0.3144	0.2975	0.2871	0.2783	Ave		0.2997			0.0500	9.4		20.0			
Chloroethane	0.2852 0.3014	0.2952	0.3280	0.3276	0.3034	Ave		0.3068			0.0500	5.7		20.0			
Dichlorofluoromethane	0.7030 0.6955	0.8333	0.7461	0.7348	0.7127	Ave		0.7376				6.9		20.0			
Trichlorofluoromethane	0.4230 0.4873	0.4668	0.5622	0.5537	0.4927	Ave		0.4976			0.1000	10.6		20.0			
Ethyl ether	0.2515 0.2663	0.2736	0.2807	0.2687	0.2661	Ave		0.2678				3.6		20.0			
Acrolein	+++++ 0.0326	0.0731	0.0401	0.0354	0.0340	Lin1	0.2172	0.0327							0.9990		0.9900
1,1-Dichloroethene	0.5279 0.5280	0.5922	0.5758	0.5721	0.5412	Ave		0.5562			0.1000	4.9		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3233 0.3257	0.3420	0.3772	0.3668	0.3445	Ave		0.3466			0.0500	6.3		20.0			
Acetone	+++++ 0.0952	0.3990	0.1134	0.1097	0.0992	Lin1	0.6092	0.0907			0.0100				0.9990		0.9900
Iodomethane	0.3897 0.5471	0.5351	0.5568	0.5540	0.5514	Ave		0.5223				12.5		20.0			
Carbon disulfide	1.2065 1.0718	1.2367	1.1319	1.1344	1.0921	Ave		1.1455			0.1000	5.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-80637-1 Analy Batch No.: 281802

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/06/2017 17:22 Calibration End Date: 06/06/2017 19:14 Calibration ID: 40321

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	+++++ 0.5108	0.5253	0.5807	0.5304	0.5205	Ave		0.5336				5.1		20.0			
Methyl acetate	+++++ 0.2356	0.4248	0.2673	0.2501	0.2465	Lin1	0.3983	0.2374			0.1000				0.9990		0.9900
Methylene Chloride	+++++ 0.4215	0.5614	0.4689	0.4266	0.4280	Ave		0.4613			0.1000	12.8		20.0			
2-Methyl-2-propanol	0.0302 0.0333	0.0404	0.0375	0.0383	0.0362	Ave		0.0360				10.2		20.0			
Acrylonitrile	0.1345 0.1256	0.1441	0.1317	0.1321	0.1297	Ave		0.1330				4.7		20.0			
trans-1,2-Dichloroethene	0.4204 0.4492	0.4684	0.4561	0.4431	0.4550	Ave		0.4487			0.1000	3.6		20.0			
Methyl tert-butyl ether	0.9913 1.0220	1.1001	1.0183	1.0109	1.0595	Ave		1.0337			0.1000	3.8		20.0			
Hexane	0.4781 0.3608	0.4680	0.4347	0.4005	0.3817	Ave		0.4206				11.3		20.0			
1,1-Dichloroethane	0.5231 0.5665	0.5581	0.5893	0.5727	0.5756	Ave		0.5642			0.2000	4.0		20.0			
Vinyl acetate	0.7295 0.6198	0.6710	0.6684	0.6261	0.6456	Ave		0.6601				6.1		20.0			
cis-1,2-Dichloroethene	0.4662 0.5101	0.5267	0.5212	0.5092	0.5192	Ave		0.5088			0.1000	4.3		20.0			
2,2-Dichloropropane	0.3967 0.3425	0.3919	0.3839	0.3491	0.3608	Ave		0.3708				6.2		20.0			
2-Butanone (MEK)	0.2255 0.1500	0.2053	0.1598	0.1632	0.1573	Ave		0.1768			0.0100	17.4		20.0			
Chlorobromomethane	0.2113 0.2607	0.2556	0.2653	0.2597	0.2615	Ave		0.2524				8.1		20.0			
Tetrahydrofuran	+++++ 0.0954	0.1319	0.1091	0.1015	0.1011	Ave		0.1078				13.3		20.0			
Chloroform	0.5319 0.5586	0.6000	0.5790	0.5477	0.5681	Ave		0.5642			0.2000	4.2		20.0			
1,1,1-Trichloroethane	0.4338 0.4639	0.4631	0.4815	0.4741	0.4735	Ave		0.4650			0.1000	3.6		20.0			
Cyclohexane	0.5150 0.4644	0.4849	0.5224	0.5097	0.4896	Ave		0.4977			0.1000	4.4		20.0			
1,1-Dichloropropene	0.4119 0.4466	0.4607	0.4827	0.4521	0.4725	Ave		0.4544				5.4		20.0			
Carbon tetrachloride	0.2371 0.3591	0.2863	0.3446	0.3535	0.3646	Ave		0.3242			0.1000	15.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-80637-1 Analy Batch No.: 281802

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/06/2017 17:22 Calibration End Date: 06/06/2017 19:14 Calibration ID: 40321

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0111 0.0114	0.0119	0.0127	0.0129	0.0125	Ave		0.0121				6.2		20.0			
Benzene	1.2014 1.3934	1.4000	1.4046	1.3771	1.4225	Ave		1.3665			0.5000	6.0		20.0			
1,2-Dichloroethane	0.4243 0.4679	0.4257	0.4778	0.4666	0.4717	Ave		0.4557			0.1000	5.3		20.0			
n-Heptane	+++++ 0.1720	0.8938	0.2548	0.1982	0.1851	Lin1	0.7441	0.1634							0.9990		0.9900
Trichloroethene	0.3322 0.3459	0.3178	0.3564	0.3353	0.3518	Ave		0.3399			0.1500	4.2		20.0			
Methylcyclohexane	0.4675 0.4552	0.4934	0.5052	0.4840	0.4745	Ave		0.4800			0.1000	3.8		20.0			
1,2-Dichloropropane	0.2971 0.3280	0.2945	0.3361	0.3314	0.3400	Ave		0.3212			0.1000	6.3		20.0			
Dibromomethane	0.1499 0.2157	0.2039	0.2174	0.2138	0.2169	Ave		0.2029				13.0		20.0			
1,4-Dioxane	+++++ 0.0046	0.0028	0.0046	0.0054	0.0050	Lin1	-0.036	0.0049							0.9950		0.9900
Dichlorobromomethane	0.3958 0.4427	0.4294	0.4352	0.4292	0.4466	Ave		0.4298			0.1500	4.2		20.0			
2-Chloroethyl vinyl ether	0.1897 0.2386	0.2248	0.2405	0.2431	0.2445	Ave		0.2302				9.1		20.0			
cis-1,3-Dichloropropene	0.4906 0.5831	0.5513	0.5801	0.5742	0.5856	Ave		0.5608			0.1500	6.5		20.0			
4-Methyl-2-pentanone (MIBK)	0.3258 0.3217	0.3643	0.3449	0.3361	0.3343	Ave		0.3378			0.0500	4.5		20.0			
Toluene	1.8045 1.8652	1.8207	1.8654	1.7834	1.8235	Ave		1.8271			0.4000	1.8		20.0			
trans-1,3-Dichloropropene	0.5810 0.6955	0.6382	0.6888	0.6719	0.6828	Ave		0.6597			0.1000	6.6		20.0			
Ethyl methacrylate	0.5995 0.6301	0.6373	0.6223	0.6194	0.6156	Ave		0.6207				2.1		20.0			
1,1,2-Trichloroethane	0.3165 0.3785	0.3754	0.3916	0.3662	0.3794	Ave		0.3680			0.1000	7.2		20.0			
Tetrachloroethene	0.3517 0.4069	0.4032	0.4126	0.3941	0.4034	Ave		0.3953			0.1500	5.6		20.0			
1,3-Dichloropropane	0.6002 0.7326	0.7169	0.7263	0.7115	0.7196	Ave		0.7012				7.1		20.0			
2-Hexanone	0.3303 0.2979	0.3041	0.3088	0.3046	0.2999	Ave		0.3076			0.0500	3.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-80637-1 Analy Batch No.: 281802

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/06/2017 17:22 Calibration End Date: 06/06/2017 19:14 Calibration ID: 40321

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.3004 0.4159	0.3266	0.3896	0.3833	0.3987	Ave		0.3691				12.2		20.0			
Ethylene Dibromide	0.3133 0.4003	0.3662	0.3977	0.3917	0.3870	Ave		0.3760				8.8		20.0			
Chlorobenzene	1.1192 1.2460	1.2098	1.2409	1.2174	1.2326	Ave		1.2110			0.3000	3.9		20.0			
1,1,1,2-Tetrachloroethane	0.3279 0.4276	0.3686	0.4017	0.4008	0.4103	Ave		0.3895				9.2		20.0			
Ethylbenzene	0.6059 0.6659	0.6167	0.6682	0.6550	0.6534	Ave		0.6442				4.1		20.0			
m-Xylene & p-Xylene	0.7007 0.8421	0.8150	0.8349	0.8063	0.8262	Ave		0.8042				6.5		20.0			
o-Xylene	0.7367 0.8400	0.7663	0.8370	0.8006	0.8245	Ave		0.8008				5.2		20.0			
Styrene	1.2971 1.5130	1.3972	1.4691	1.4443	1.4845	Ave		1.4342			0.3000	5.4		20.0			
Bromoform	+++++ 0.2813	0.1915	0.2487	0.2561	0.2695	Ave		0.2494			0.1000	13.9		20.0			
Isopropylbenzene	1.7513 1.9687	1.9037	1.9977	1.9267	1.9618	Ave		1.9183			0.1000	4.6		20.0			
1,1,2,2-Tetrachloroethane	0.8898 0.9483	1.0368	0.9920	0.9698	0.9884	Ave		0.9708			0.3000	5.1		20.0			
Bromobenzene	0.7799 0.8979	0.9416	0.9083	0.8752	0.8987	Ave		0.8836				6.2		20.0			
1,2,3-Trichloropropane	0.2573 0.3240	0.3448	0.3293	0.3254	0.3315	Ave		0.3187				9.7		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.3100	0.2803	0.3206	0.3046	0.3161	Ave		0.3063				5.1		20.0			
N-Propylbenzene	0.7767 0.9096	0.9038	0.9106	0.8772	0.9253	Ave		0.8839				6.2		20.0			
2-Chlorotoluene	0.7548 0.8234	0.8282	0.8365	0.8119	0.8323	Ave		0.8145				3.7		20.0			
1,3,5-Trimethylbenzene	2.4754 2.8824	2.7872	2.8799	2.7983	2.9050	Ave		2.7881				5.8		20.0			
4-Chlorotoluene	0.8296 0.8785	0.8699	0.8833	0.8714	0.9036	Ave		0.8727				2.8		20.0			
tert-Butylbenzene	2.1430 2.3379	2.3515	2.3883	2.3590	2.3855	Ave		2.3275				4.0		20.0			
1,2,4-Trimethylbenzene	2.9498 3.0837	3.1901	3.0833	3.0539	3.1131	Ave		3.0790				2.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-80637-1 Analy Batch No.: 281802

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/06/2017 17:22 Calibration End Date: 06/06/2017 19:14 Calibration ID: 40321

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.9122 3.1828	3.2019	3.2870	3.2426	3.2618	Ave		3.1814				4.3		20.0			
1,3-Dichlorobenzene	1.5585 1.6557	1.6139	1.6711	1.6535	1.6676	Ave		1.6367			0.6000	2.7		20.0			
4-Isopropyltoluene	2.6418 2.9153	2.9083	2.9891	2.9133	2.9958	Ave		2.8939				4.5		20.0			
1,4-Dichlorobenzene	1.6912 1.7230	1.7920	1.7593	1.7285	1.7442	Ave		1.7397			0.5000	2.0		20.0			
n-Butylbenzene	2.2032 2.3576	2.3684	2.4478	2.4268	2.4370	Ave		2.3735				3.8		20.0			
1,2-Dichlorobenzene	1.4491 1.6138	1.6315	1.6514	1.6119	1.6293	Ave		1.5978			0.4000	4.6		20.0			
1,2-Dibromo-3-Chloropropane	0.1813 0.2130	0.1689	0.2135	0.2262	0.2157	Ave		0.2031			0.0500	11.1		20.0			
1,2,4-Trichlorobenzene	0.8152 0.9470	0.9557	0.9739	0.9555	0.9575	Ave		0.9341			0.2000	6.3		20.0			
Hexachlorobutadiene	0.3685 0.3391	0.3417	0.3622	0.3511	0.3398	Ave		0.3504				3.6		20.0			
Naphthalene	2.6735 2.9521	2.9722	2.9696	3.0118	3.0008	Ave		2.9300				4.4		20.0			
1,2,3-Trichlorobenzene	0.7285 0.8574	0.9124	0.8767	0.8748	0.8691	Ave		0.8531				7.5		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2868	0.2789	0.2902	0.2829	0.2928	Ave		0.2863				1.9		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3886	0.4109	0.3971	0.3933	0.3914	Ave		0.3962				2.2		20.0			
Toluene-d8 (Surr)	+++++ 1.5817	1.5457	1.5783	1.5177	1.5164	Ave		1.5480				2.0		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.6605	0.6907	0.6591	0.6416	0.6453	Ave		0.6594				2.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-80637-1 Analy Batch No.: 281802

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/06/2017 17:22 Calibration End Date: 06/06/2017 19:14 Calibration ID: 40321

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-281802/6	U1257879.D
Level 2	STD8260 240-281802/7	U1257880a.D
Level 3	STD8260 240-281802/8	U1257881.D
Level 4	ICIS 240-281802/9	U1257882.D
Level 5	STD8260 240-281802/10	U1257883.D
Level 6	STD8260 240-281802/11	U1257884a.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 1293936	24996	275206	537143	891231	+++++ 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	15947 1466750	25972	250897	487970	991284	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	13362 1522915	25578	272333	529625	1029620	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	+++++ 1271855	29915	244386	478063	886644	+++++ 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	9107 882457	15990	151732	291321	592331	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	7454 976389	15016	167263	332334	645899	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	18373 2253297	42383	380498	745527	1517119	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	11055 1578887	23740	286708	561767	1048874	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	6572 862873	13916	143166	272659	566455	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Lin1	+++++ 528703	18589	102213	179758	361707	+++++ 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	13795 1710678	30120	293611	580476	1152058	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	8448 1055258	17396	192359	372151	733204	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 616805	40589	115697	222697	422390	+++++ 120	2.00	20.0	40.0	80.0
Iodomethane	FB	Ave	10184 1772604	27215	283928	562053	1173787	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	31532 3472550	62899	577201	1150893	2324574	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	+++++ 1655114	26717	296128	538161	1108034	+++++ 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-80637-1 Analy Batch No.: 281802

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/06/2017 17:22 Calibration End Date: 06/06/2017 19:14 Calibration ID: 40321

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Lin1	+++++ 1526420	43211	272667	507582	1049572	+++++ 120	2.00	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 1365586	28555	239107	432801	911047	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	7904 1077678	20569	191069	388243	770973	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	35139 4070842	73317	671650	1340007	2761103	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	10988 1455316	23825	232602	449600	968515	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	25908 3311230	55952	519264	1025641	2255230	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	12495 1168828	23803	221661	406361	812543	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	13672 1835507	28387	300490	581067	1225294	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	19065 2008026	34126	340866	635200	1374272	0.500 60.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	12183 1652640	26790	265795	516648	1105220	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	10367 1109656	19933	195773	354162	767921	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	11787 971970	20882	162932	331258	669697	1.00 120	2.00	20.0	40.0	80.0
Chlorobromomethane	FB	Ave	5523 844621	13000	135280	263511	556669	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 618092	13415	111245	206053	430330	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	13901 1809793	30519	295283	555684	1209257	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	11337 1502867	23556	245535	481048	1007903	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	13460 1504552	24665	266405	517085	1042222	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	10764 1446838	23433	246145	458730	1005812	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6196 1163582	14560	175726	358603	776118	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	7231 920271	15147	162143	326660	666465	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	31398 4514713	71207	716281	1397165	3027961	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-80637-1 Analy Batch No.: 281802

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/06/2017 17:22 Calibration End Date: 06/06/2017 19:14 Calibration ID: 40321

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	11089 1515999	21650	243656	473441	1004156	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 557395	45461	129921	201111	393932	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	8681 1120667	16162	181734	340145	748885	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	12217 1474774	25095	257609	491051	1010114	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	7765 1062854	14980	171398	336230	723833	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3917 698783	10373	110871	216872	461694	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Lin1	+++++ 297520	2851	46475	110047	214650	+++++ 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	10343 1434390	21840	221919	435431	950659	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	9916 1546012	22866	245312	493379	1041006	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	12822 1889161	28039	295807	582585	1246450	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	17028 2084555	37057	351762	681982	1423365	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	37940 4843817	74932	761067	1469801	3217147	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	12216 1806040	26265	281041	553763	1204658	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	12604 1636378	26230	253890	510472	1086134	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6655 982956	15450	159788	301817	669420	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7395 1056738	16596	168354	324819	711686	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	12620 1902566	29505	296323	586383	1269623	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	13890 1547294	25035	251996	502069	1058043	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	6316 1079993	13440	158958	315907	703416	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	6587 1039536	15072	162258	322828	682813	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	23531 3235674	49789	506291	1003325	2174556	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-80637-1 Analy Batch No.: 281802

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/06/2017 17:22 Calibration End Date: 06/06/2017 19:14 Calibration ID: 40321

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6894 1110412	15169	163908	330331	723948	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	12739 1729212	25381	272639	539853	1152744	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	14733 2186780	33542	340655	664492	1457661	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	15489 2181550	31537	341484	659816	1454705	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	27273 3929259	57502	599388	1190365	2618964	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 730628	7880	101475	211078	475449	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	36822 5112565	78349	815047	1587933	3461028	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	10354 1466509	24273	236315	465668	1012147	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	9075 1388558	22043	216369	420247	920297	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2994 501035	8071	78439	156262	339512	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 479351	6561	76375	146284	323676	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	9038 1406607	21159	216926	421221	947548	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	8784 1273350	19389	199285	389863	852280	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	28806 4457576	65249	686076	1343716	2974841	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	9654 1358490	20364	210432	418425	925353	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	24938 3615414	55051	568949	1132762	2442871	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	34326 4768853	74681	734531	1466442	3187945	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	33888 4922147	74958	783055	1557026	3340219	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	18136 2560493	37783	398105	793989	1707727	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	30742 4508411	68085	712081	1398939	3067760	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	19680 2664564	41952	419114	830001	1786071	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-80637-1 Analy Batch No.: 281802

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/06/2017 17:22 Calibration End Date: 06/06/2017 19:14 Calibration ID: 40321

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	25638 3646005	55445	583129	1165309	2495570	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	16863 2495624	38194	393398	773990	1668504	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2110 329402	3955	50854	108636	220887	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9486 1464435	22374	232010	458812	980546	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4288 524471	8000	86279	168607	347992	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	31111 4565337	69582	707443	1446204	3072903	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	8477 1325901	21360	208854	420067	889954	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 929139	14187	147975	286999	623172	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 1259157	20897	202513	398985	833076	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 4107640	63614	643933	1250838	2675278	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1715208	28426	268900	528760	1138453	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab Sample ID: ICV 240-281802/12 Calibration Date: 06/06/2017 19:37

Instrument ID: A3UX12 Calib Start Date: 06/06/2017 17:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/06/2017 19:14

Lab File ID: U1257885.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4757	0.2668	0.1000	0.0112	0.0200	-43.9*	20.0
Chloromethane	Ave	0.5020	0.3661	0.1000	0.0146	0.0200	-27.1*	20.0
Vinyl chloride	Ave	0.5040	0.4479	0.1000	0.0178	0.0200	-11.1	20.0
Butadiene	Ave	0.4695	0.3721		0.0158	0.0200	-20.8	30.0
Bromomethane	Ave	0.2997	0.2615	0.0500	0.0175	0.0200	-12.7	20.0
Chloroethane	Ave	0.3068	0.3031	0.0500	0.0198	0.0200	-1.2	20.0
Dichlorofluoromethane	Ave	0.7376	0.7176		0.0195	0.0200	-2.7	20.0
Trichlorofluoromethane	Ave	0.4976	0.5351	0.1000	0.0215	0.0200	7.5	20.0
Ethyl ether	Ave	0.2678	0.2828		0.0211	0.0200	5.6	20.0
Acrolein	Lin1		0.0565		0.166	0.100	66.0*	50.0
1,1-Dichloroethene	Ave	0.5562	0.5819	0.1000	0.0209	0.0200	4.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3466	0.3838	0.0500	0.0221	0.0200	10.7	20.0
Acetone	Lin1		0.1088	0.0100	0.0413	0.0400	3.2	50.0
Iodomethane	Ave	0.5223	0.5796		0.0222	0.0200	11.0	20.0
Carbon disulfide	Ave	1.146	1.178	0.1000	0.0206	0.0200	2.9	20.0
3-Chloro-1-propene	Ave	0.5336	0.5366		0.0201	0.0200	0.6	20.0
Methyl acetate	Lin1		0.2483	0.1000	0.0401	0.0400	0.4	20.0
Methylene Chloride	Ave	0.4613	0.4530	0.1000	0.0196	0.0200	-1.8	50.0
2-Methyl-2-propanol	Ave	0.0360	0.0378		0.210	0.200	5.0	50.0
Acrylonitrile	Ave	0.1330	0.1270		0.191	0.200	-4.5	20.0
trans-1,2-Dichloroethene	Ave	0.4487	0.4728	0.1000	0.0211	0.0200	5.4	20.0
Methyl tert-butyl ether	Ave	1.034	1.036	0.1000	0.0200	0.0200	0.2	20.0
Hexane	Ave	0.4206	0.4033		0.0192	0.0200	-4.1	20.0
1,1-Dichloroethane	Ave	0.5642	0.5737	0.2000	0.0203	0.0200	1.7	20.0
Vinyl acetate	Ave	0.6601	0.6099		0.0185	0.0200	-7.6	50.0
cis-1,2-Dichloroethene	Ave	0.5088	0.5170	0.1000	0.0203	0.0200	1.6	20.0
2,2-Dichloropropane	Ave	0.3708	0.3646		0.0197	0.0200	-1.7	20.0
2-Butanone (MEK)	Ave	0.1768	0.1495	0.0100	0.0338	0.0400	-15.4	20.0
Chlorobromomethane	Ave	0.2524	0.2630		0.0208	0.0200	4.2	20.0
Tetrahydrofuran	Ave	0.1078	0.1026		0.0381	0.0400	-4.8	20.0
Chloroform	Ave	0.5642	0.5711	0.2000	0.0202	0.0200	1.2	20.0
1,1,1-Trichloroethane	Ave	0.4650	0.4820	0.1000	0.0207	0.0200	3.7	20.0
Cyclohexane	Ave	0.4977	0.5411	0.1000	0.0217	0.0200	8.7	20.0
1,1-Dichloropropene	Ave	0.4544	0.4757		0.0209	0.0200	4.7	20.0
Carbon tetrachloride	Ave	0.3242	0.3573	0.1000	0.0220	0.0200	10.2	20.0
Isobutyl alcohol	Ave	0.0121	0.0120		0.498	0.500	-0.3	20.0
Benzene	Ave	1.367	1.386	0.5000	0.0203	0.0200	1.4	20.0
1,2-Dichloroethane	Ave	0.4557	0.4604	0.1000	0.0202	0.0200	1.0	20.0
n-Heptane	Lin1		0.2082		0.0209	0.0200	4.6	20.0
Trichloroethene	Ave	0.3399	0.3581	0.1500	0.0211	0.0200	5.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab Sample ID: ICV 240-281802/12 Calibration Date: 06/06/2017 19:37

Instrument ID: A3UX12 Calib Start Date: 06/06/2017 17:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/06/2017 19:14

Lab File ID: U1257885.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4800	0.4868	0.1000	0.0203	0.0200	1.4	20.0
1,2-Dichloropropane	Ave	0.3212	0.3405	0.1000	0.0212	0.0200	6.0	20.0
Dibromomethane	Ave	0.2029	0.2119		0.0209	0.0200	4.4	20.0
1,4-Dioxane	Lin1		0.0050		0.411	0.400	2.7	50.0
Dichlorobromomethane	Ave	0.4298	0.4335	0.1500	0.0202	0.0200	0.9	20.0
2-Chloroethyl vinyl ether	Ave	0.2302	0.2378		0.0207	0.0200	3.3	20.0
cis-1,3-Dichloropropene	Ave	0.5608	0.5978	0.1500	0.0213	0.0200	6.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3378	0.3214	0.0500	0.0381	0.0400	-4.9	20.0
Toluene	Ave	1.827	1.843	0.4000	0.0202	0.0200	0.9	20.0
trans-1,3-Dichloropropene	Ave	0.6597	0.6686	0.1000	0.0203	0.0200	1.4	20.0
Ethyl methacrylate	Ave	0.6207	0.6172		0.0199	0.0200	-0.6	20.0
1,1,2-Trichloroethane	Ave	0.3680	0.3810	0.1000	0.0207	0.0200	3.6	20.0
Tetrachloroethene	Ave	0.3953	0.4053	0.1500	0.0205	0.0200	2.5	20.0
1,3-Dichloropropane	Ave	0.7012	0.7085		0.0202	0.0200	1.0	20.0
2-Hexanone	Ave	0.3076	0.2971	0.0500	0.0386	0.0400	-3.4	20.0
Chlorodibromomethane	Ave	0.3691	0.4031		0.0218	0.0200	9.2	20.0
Ethylene Dibromide	Ave	0.3760	0.3884		0.0207	0.0200	3.3	20.0
Chlorobenzene	Ave	1.211	1.221	0.3000	0.0202	0.0200	0.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3895	0.4225		0.0217	0.0200	8.5	20.0
Ethylbenzene	Ave	0.6442	0.6615		0.0205	0.0200	2.7	20.0
m-Xylene & p-Xylene	Ave	0.8042	0.8233		0.0205	0.0200	2.4	20.0
o-Xylene	Ave	0.8008	0.8128		0.0203	0.0200	1.5	20.0
Styrene	Ave	1.434	1.439	0.3000	0.0201	0.0200	0.4	20.0
Bromoform	Ave	0.2494	0.2614	0.1000	0.0210	0.0200	4.8	20.0
Isopropylbenzene	Ave	1.918	1.982	0.1000	0.0207	0.0200	3.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9708	0.9476	0.3000	0.0195	0.0200	-2.4	20.0
Bromobenzene	Ave	0.8836	0.8584		0.0194	0.0200	-2.9	20.0
1,2,3-Trichloropropane	Ave	0.3187	0.3228		0.0203	0.0200	1.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3063	0.3085		0.0201	0.0200	0.7	20.0
N-Propylbenzene	Ave	0.8839	0.9038		0.0205	0.0200	2.3	20.0
2-Chlorotoluene	Ave	0.8145	0.8092		0.0199	0.0200	-0.7	20.0
1,3,5-Trimethylbenzene	Ave	2.788	2.813		0.0202	0.0200	0.9	20.0
4-Chlorotoluene	Ave	0.8727	0.8793		0.0202	0.0200	0.8	20.0
tert-Butylbenzene	Ave	2.328	2.371		0.0204	0.0200	1.9	20.0
1,2,4-Trimethylbenzene	Ave	3.079	2.974		0.0193	0.0200	-3.4	20.0
sec-Butylbenzene	Ave	3.181	3.270		0.0206	0.0200	2.8	20.0
1,3-Dichlorobenzene	Ave	1.637	1.632	0.6000	0.0199	0.0200	-0.3	20.0
4-Isopropyltoluene	Ave	2.894	2.960		0.0205	0.0200	2.3	20.0
1,4-Dichlorobenzene	Ave	1.740	1.714	0.5000	0.0197	0.0200	-1.5	20.0
n-Butylbenzene	Ave	2.373	2.410		0.0203	0.0200	1.6	20.0
1,2-Dichlorobenzene	Ave	1.598	1.614	0.4000	0.0202	0.0200	1.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab Sample ID: ICV 240-281802/12 Calibration Date: 06/06/2017 19:37

Instrument ID: A3UX12 Calib Start Date: 06/06/2017 17:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/06/2017 19:14

Lab File ID: U1257885.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2031	0.2252	0.0500	0.0222	0.0200	10.9	50.0
1,2,4-Trichlorobenzene	Ave	0.9341	0.9689	0.2000	0.0207	0.0200	3.7	50.0
Hexachlorobutadiene	Ave	0.3504	0.3829		0.0219	0.0200	9.3	20.0
Naphthalene	Ave	2.930	2.986		0.0204	0.0200	1.9	50.0
1,2,3-Trichlorobenzene	Ave	0.8531	0.8799		0.0206	0.0200	3.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2863	0.2749		0.0159	0.0165	-4.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3962	0.3831		0.0160	0.0165	-3.3	20.0
Toluene-d8 (Surr)	Ave	1.548	1.516		0.0162	0.0165	-2.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6594	0.6426		0.0161	0.0165	-2.5	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab File ID: BFB3571.D BFB Injection Date: 06/14/2017

Instrument ID: A3UX12 BFB Injection Time: 12:31

Analysis Batch No.: 283071

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	46.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	76.7	
175	5.0 - 9.0 % of mass 174	5.8	(7.6) 1
176	95.0 - 101.0 % of mass 174	75.2	(98.0) 1
177	5.0 - 9.0 % of mass 176	4.7	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-283071/3	U1258035.D	06/14/2017	12:56
	LCS 240-283071/4	U1258036.D	06/14/2017	13:19
	CCV 240-283071/5	U1258037.D	06/14/2017	13:41
	MB 240-283071/7	U1258039.D	06/14/2017	14:26
MRC-MW16A-060717	240-80637-1	U1258056.D	06/14/2017	20:49
	240-80623-A-4 MS	U1258060.D	06/14/2017	23:09
	240-80623-A-4 MSD	U1258061.D	06/14/2017	23:32

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab Sample ID: CCVIS 240-283071/3 Calibration Date: 06/14/2017 12:56

Instrument ID: A3UX12 Calib Start Date: 06/06/2017 17:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/06/2017 19:14

Lab File ID: U1258035.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4757	0.4637	0.1000	0.0195	0.0200	-2.5	20.0
Chloromethane	Ave	0.5020	0.4255	0.1000	0.0170	0.0200	-15.2	20.0
Butadiene	Ave	0.4695	0.4297		0.0183	0.0200	-8.5	20.0
Vinyl chloride	Ave	0.5040	0.4621	0.1000	0.0183	0.0200	-8.3	20.0
Bromomethane	Ave	0.2997	0.2772	0.0500	0.0185	0.0200	-7.5	20.0
Chloroethane	Ave	0.3068	0.2930	0.0500	0.0191	0.0200	-4.5	20.0
Dichlorofluoromethane	Ave	0.7376	0.6750		0.0183	0.0200	-8.5	20.0
Trichlorofluoromethane	Ave	0.4976	0.5570	0.1000	0.0224	0.0200	11.9	20.0
Ethyl ether	Ave	0.2678	0.2435		0.0182	0.0200	-9.1	20.0
Acrolein	Lin1		0.0267		0.0751	0.100	-24.9	50.0
1,1-Dichloroethene	Ave	0.5562	0.5212	0.1000	0.0187	0.0200	-6.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3466	0.3675	0.0500	0.0212	0.0200	6.0	20.0
Acetone	Lin1		0.0778	0.0100	0.0276	0.0400	-31.1	50.0
Iodomethane	Ave	0.5223	0.4889		0.0187	0.0200	-6.4	20.0
Carbon disulfide	Ave	1.146	1.036	0.1000	0.0181	0.0200	-9.6	20.0
3-Chloro-1-propene	Ave	0.5336	0.4658		0.0175	0.0200	-12.7	20.0
Methyl acetate	Lin1		0.2044	0.1000	0.0328	0.0400	-18.1	20.0
Methylene Chloride	Ave	0.4613	0.3831	0.1000	0.0166	0.0200	-17.0	50.0
2-Methyl-2-propanol	Ave	0.0360	0.0292		0.162	0.200	-19.0	50.0
Acrylonitrile	Ave	0.1330	0.1091		0.164	0.200	-17.9	20.0
Methyl tert-butyl ether	Ave	1.034	0.9724	0.1000	0.0188	0.0200	-5.9	20.0
trans-1,2-Dichloroethene	Ave	0.4487	0.4267	0.1000	0.0190	0.0200	-4.9	20.0
Hexane	Ave	0.4206	0.3578		0.0170	0.0200	-14.9	20.0
1,1-Dichloroethane	Ave	0.5642	0.5336	0.2000	0.0189	0.0200	-5.4	20.0
Vinyl acetate	Ave	0.6601	0.5044		0.0153	0.0200	-23.6	50.0
2,2-Dichloropropane	Ave	0.3708	0.3437		0.0185	0.0200	-7.3	20.0
cis-1,2-Dichloroethene	Ave	0.5088	0.4786	0.1000	0.0188	0.0200	-5.9	20.0
2-Butanone (MEK)	Ave	0.1768	0.1273	0.0100	0.0288	0.0400	-28.0*	20.0
Chlorobromomethane	Ave	0.2524	0.2320		0.0184	0.0200	-8.1	20.0
Tetrahydrofuran	Ave	0.1078	0.0844		0.0313	0.0400	-21.7*	20.0
Chloroform	Ave	0.5642	0.5264	0.2000	0.0187	0.0200	-6.7	20.0
1,1,1-Trichloroethane	Ave	0.4650	0.4683	0.1000	0.0201	0.0200	0.7	20.0
Cyclohexane	Ave	0.4977	0.5056	0.1000	0.0203	0.0200	1.6	20.0
1,1-Dichloropropene	Ave	0.4544	0.4524		0.0199	0.0200	-0.5	20.0
Carbon tetrachloride	Ave	0.3242	0.3734	0.1000	0.0230	0.0200	15.2	20.0
Isobutyl alcohol	Ave	0.0121	0.0094		0.387	0.500	-22.5*	20.0
1,2-Dichloroethane	Ave	0.4557	0.4336	0.1000	0.0190	0.0200	-4.9	20.0
Benzene	Ave	1.367	1.320	0.5000	0.0193	0.0200	-3.4	20.0
n-Heptane	Lin1		0.1880		0.0185	0.0200	-7.7	20.0
Trichloroethene	Ave	0.3399	0.3445	0.1500	0.0203	0.0200	1.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab Sample ID: CCVIS 240-283071/3 Calibration Date: 06/14/2017 12:56

Instrument ID: A3UX12 Calib Start Date: 06/06/2017 17:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/06/2017 19:14

Lab File ID: U1258035.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4800	0.4643	0.1000	0.0193	0.0200	-3.3	20.0
1,2-Dichloropropane	Ave	0.3212	0.3082	0.1000	0.0192	0.0200	-4.1	20.0
Dibromomethane	Ave	0.2029	0.2025		0.0200	0.0200	-0.2	20.0
1,4-Dioxane	Lin1		0.0039		0.322	0.400	-19.6	50.0
Dichlorobromomethane	Ave	0.4298	0.3952	0.1500	0.0184	0.0200	-8.1	20.0
2-Chloroethyl vinyl ether	Ave	0.2302	0.2175		0.0378	0.0400	-5.5	20.0
cis-1,3-Dichloropropene	Ave	0.5608	0.5324	0.1500	0.0190	0.0200	-5.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3378	0.2831	0.0500	0.0335	0.0400	-16.2	20.0
Toluene	Ave	1.827	1.832	0.4000	0.0201	0.0200	0.3	20.0
trans-1,3-Dichloropropene	Ave	0.6597	0.6409	0.1000	0.0194	0.0200	-2.8	20.0
Ethyl methacrylate	Ave	0.6207	0.5738		0.0185	0.0200	-7.6	20.0
1,1,2-Trichloroethane	Ave	0.3680	0.3734	0.1000	0.0203	0.0200	1.5	20.0
Tetrachloroethene	Ave	0.3953	0.4187	0.1500	0.0212	0.0200	5.9	20.0
1,3-Dichloropropane	Ave	0.7012	0.7010		0.0200	0.0200	-0.0	20.0
2-Hexanone	Ave	0.3076	0.2717	0.0500	0.0353	0.0400	-11.7	20.0
Chlorodibromomethane	Ave	0.3691	0.3613		0.0196	0.0200	-2.1	20.0
Ethylene Dibromide	Ave	0.3760	0.3895		0.0207	0.0200	3.6	20.0
Chlorobenzene	Ave	1.211	1.248	0.3000	0.0206	0.0200	3.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3895	0.3964		0.0204	0.0200	1.8	20.0
Ethylbenzene	Ave	0.6442	0.6436		0.0200	0.0200	-0.0	20.0
m-Xylene & p-Xylene	Ave	0.8042	0.8323		0.0207	0.0200	3.5	20.0
o-Xylene	Ave	0.8008	0.8134		0.0203	0.0200	1.6	20.0
Styrene	Ave	1.434	1.458	0.3000	0.0203	0.0200	1.7	20.0
Bromoform	Ave	0.2494	0.2286	0.1000	0.0183	0.0200	-8.4	20.0
Isopropylbenzene	Ave	1.918	1.965	0.1000	0.0205	0.0200	2.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9708	0.9643	0.3000	0.0199	0.0200	-0.7	20.0
Bromobenzene	Ave	0.8836	0.9005		0.0204	0.0200	1.9	20.0
1,2,3-Trichloropropane	Ave	0.3187	0.3268		0.0205	0.0200	2.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3063	0.2599		0.0170	0.0200	-15.2	20.0
N-Propylbenzene	Ave	0.8839	0.9228		0.0209	0.0200	4.4	20.0
2-Chlorotoluene	Ave	0.8145	0.8306		0.0204	0.0200	2.0	20.0
1,3,5-Trimethylbenzene	Ave	2.788	2.868		0.0206	0.0200	2.9	20.0
4-Chlorotoluene	Ave	0.8727	0.8950		0.0205	0.0200	2.6	20.0
tert-Butylbenzene	Ave	2.328	2.387		0.0205	0.0200	2.6	20.0
1,2,4-Trimethylbenzene	Ave	3.079	3.067		0.0199	0.0200	-0.4	20.0
sec-Butylbenzene	Ave	3.181	3.260		0.0205	0.0200	2.5	20.0
1,3-Dichlorobenzene	Ave	1.637	1.708	0.6000	0.0209	0.0200	4.3	20.0
4-Isopropyltoluene	Ave	2.894	2.928		0.0202	0.0200	1.2	20.0
1,4-Dichlorobenzene	Ave	1.740	1.772	0.5000	0.0204	0.0200	1.8	20.0
n-Butylbenzene	Ave	2.373	2.398		0.0202	0.0200	1.0	20.0
1,2-Dichlorobenzene	Ave	1.598	1.613	0.4000	0.0202	0.0200	1.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab Sample ID: CCVIS 240-283071/3 Calibration Date: 06/14/2017 12:56

Instrument ID: A3UX12 Calib Start Date: 06/06/2017 17:22

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/06/2017 19:14

Lab File ID: U1258035.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2031	0.1903	0.0500	0.0187	0.0200	-6.3	50.0
1,2,4-Trichlorobenzene	Ave	0.9341	0.9062	0.2000	0.0194	0.0200	-3.0	50.0
Hexachlorobutadiene	Ave	0.3504	0.3457		0.0197	0.0200	-1.3	20.0
Naphthalene	Ave	2.930	2.756		0.0188	0.0200	-5.9	50.0
1,2,3-Trichlorobenzene	Ave	0.8531	0.8091		0.0190	0.0200	-5.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2863	0.2620		0.0151	0.0165	-8.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3962	0.3510		0.0146	0.0165	-11.4	20.0
Toluene-d8 (Surr)	Ave	1.548	1.479		0.0158	0.0165	-4.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.6594	0.6254		0.0157	0.0165	-5.2	20.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab File ID: U1258039.D Lab Sample ID: MB 240-283071/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 06/14/2017 14:26

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-283071/4	U1258036.D	06/14/2017 13:19
MRC-MW16A-060717	240-80637-1	U1258056.D	06/14/2017 20:49
	240-80623-A-4 MS	U1258060.D	06/14/2017 23:09
	240-80623-A-4 MSD	U1258061.D	06/14/2017 23:32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-80637-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-283071/7

Matrix: Water | Lab File ID: U1258039.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/14/2017 14:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 283071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-80637-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-283071/7

Matrix: Water | Lab File ID: U1258039.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/14/2017 14:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 283071 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	92		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		61-138

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1258036.D

Lab ID: LCS 240-283071/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	19.8	99	64-147	
1,1,2,2-Tetrachloroethane	20.0	19.5	97	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.1	106	65-144	
1,1,2-Trichloroethane	20.0	20.6	103	76-121	
1,1-Dichloroethane	20.0	18.9	95	74-120	
1,1-Dichloroethene	20.0	19.7	98	65-127	
1,2,4-Trichlorobenzene	20.0	20.6	103	34-141	
1,2-Dibromo-3-Chloropropane	20.0	19.7	99	50-130	
Ethylene Dibromide	20.0	20.9	104	80-120	
1,2-Dichlorobenzene	20.0	20.8	104	80-120	
1,2-Dichloroethane	20.0	19.1	95	68-133	
1,2-Dichloropropane	20.0	19.2	96	78-127	
1,3-Dichlorobenzene	20.0	20.6	103	80-120	
1,4-Dichlorobenzene	20.0	20.2	101	80-120	
2-Butanone (MEK)	40.0	29.5	74	43-149	
2-Hexanone	40.0	35.4	88	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	34.5	86	53-144	
Acetone	40.0	30.7	77	35-131	
Benzene	20.0	19.3	97	79-120	
Dichlorobromomethane	20.0	18.4	92	79-125	
Bromoform	20.0	18.0	90	55-145	
Bromomethane	20.0	19.0	95	17-158	
Carbon disulfide	20.0	18.0	90	49-141	
Carbon tetrachloride	20.0	23.3	116	55-171	
Chlorobenzene	20.0	20.7	103	80-120	
Chloroethane	20.0	19.7	99	10-149	
Chloroform	20.0	18.6	93	80-120	
Chloromethane	20.0	16.9	85	59-124	
cis-1,2-Dichloroethene	20.0	18.7	94	77-120	
cis-1,3-Dichloropropene	20.0	19.6	98	75-120	
Cyclohexane	20.0	20.5	103	66-135	
Chlorodibromomethane	20.0	19.6	98	64-129	
Dichlorodifluoromethane	20.0	21.4	107	42-141	
Ethylbenzene	20.0	20.1	101	80-120	
Isopropylbenzene	20.0	20.3	102	80-128	
Methyl acetate	40.0	33.1	83	63-137	
Methyl tert-butyl ether	20.0	19.7	99	73-120	
Methylcyclohexane	20.0	18.8	94	63-141	
Methylene Chloride	20.0	18.2	91	64-140	
Styrene	20.0	19.9	100	80-121	
Tetrachloroethene	20.0	21.1	106	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1258036.D

Lab ID: LCS 240-283071/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.1	101	78-120	
trans-1,2-Dichloroethene	20.0	19.6	98	74-124	
trans-1,3-Dichloropropene	20.0	18.8	94	67-120	
Trichloroethene	20.0	20.4	102	76-124	
Trichlorofluoromethane	20.0	23.5	117	27-176	
Vinyl chloride	20.0	19.6	98	65-124	
Xylenes, Total	40.0	41.2	103	80-120	
m-Xylene & p-Xylene	20.0	20.8	104	80-120	
o-Xylene	20.0	20.4	102	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1258060.D

Lab ID: 240-80623-A-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	2000	23 U	1860	93	57-156	
1,1,2,2-Tetrachloroethane	2000	32 U	1710	85	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	2000	41 U	1820	91	58-137	
1,1,2-Trichloroethane	2000	34 U	1910	95	68-127	
1,1-Dichloroethane	2000	25 U	1770	88	69-122	
1,1-Dichloroethene	2000	27 U	1850	92	62-127	
1,2,4-Trichlorobenzene	2000	27 U	1820	91	26-138	
1,2-Dibromo-3-Chloropropane	2000	47 U	1550	78	48-130	
Ethylene Dibromide	2000	23 U	1910	96	73-121	
1,2-Dichlorobenzene	2000	26 U	1940	97	70-120	
1,2-Dichloroethane	2000	30 U	1800	90	64-138	
1,2-Dichloropropane	2000	30 U	1850	92	72-131	
1,3-Dichlorobenzene	2000	32 U	1950	97	71-120	
1,4-Dichlorobenzene	2000	23 U	1920	96	72-120	
2-Butanone (MEK)	4000	3000	5240	56	34-153	
2-Hexanone	4000	120 U	2860	71	21-184	
4-Methyl-2-pentanone (MIBK)	4000	79 J	2970	72	53-147	
Acetone	4000	7100	9870	69	19-133	
Benzene	2000	28 U	1820	91	69-127	
Dichlorobromomethane	2000	30 U	1660	83	75-128	
Bromoform	2000	43 U	1400	70	61-135	
Bromomethane	2000	42 U	1940	97	10-148	
Carbon disulfide	2000	34 U	1720	86	46-143	
Carbon tetrachloride	2000	35 U	2020	101	53-175	
Chlorobenzene	2000	32 U	1930	96	76-120	
Chloroethane	2000	41 U	1970	99	10-141	
Chloroform	2000	31 U	1800	90	74-125	
Chloromethane	2000	43 U	1660	83	34-127	
cis-1,2-Dichloroethene	2000	30 U	1770	89	69-127	
cis-1,3-Dichloropropene	2000	26 U	1770	89	68-120	
Cyclohexane	2000	44 U	1750	87	56-135	
Chlorodibromomethane	2000	25 U	1680	84	62-131	
Dichlorodifluoromethane	2000	50 U	1770	89	45-130	
Ethylbenzene	2000	26 U	1880	94	72-121	
Isopropylbenzene	2000	21 U	1910	96	70-132	
Methyl acetate	4000	140 U	3130	78	52-139	
Methyl tert-butyl ether	2000	27 U	1780	89	67-125	
Methylcyclohexane	2000	45 U	1610	80	46-139	
Methylene Chloride	2000	53 U	808	40	52-137	F1
Styrene	2000	23 U	1880	94	74-125	
Tetrachloroethene	2000	30 U	1930	97	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1258060.D

Lab ID: 240-80623-A-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	2000	23 U	1850	92	69-125	
trans-1,2-Dichloroethene	2000	29 U	1810	90	66-131	
trans-1,3-Dichloropropene	2000	31 U	1630	82	59-120	
Trichloroethene	2000	33 U	1910	96	68-129	
Trichlorofluoromethane	2000	50 U	2100	105	28-172	
Vinyl chloride	2000	45 U	1820	91	55-123	
Xylenes, Total	4000	24 U	3800	95	71-122	
m-Xylene & p-Xylene	2000	24 U	1900	95	70-121	
o-Xylene	2000	28 U	1900	95	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1258061.D

Lab ID: 240-80623-A-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	2000	1860	93	0	13	57-156	
1,1,2,2-Tetrachloroethane	2000	1840	92	7	17	51-123	
1,1,2-Trichloro-1,2,2-trifluoroethane	2000	1840	92	1	35	58-137	
1,1,2-Trichloroethane	2000	1970	99	3	11	68-127	
1,1-Dichloroethane	2000	1790	90	1	11	69-122	
1,1-Dichloroethene	2000	1830	91	1	14	62-127	
1,2,4-Trichlorobenzene	2000	1860	93	2	35	26-138	
1,2-Dibromo-3-Chloropropane	2000	1750	88	12	31	48-130	
Ethylene Dibromide	2000	1940	97	1	12	73-121	
1,2-Dichlorobenzene	2000	1930	97	0	19	70-120	
1,2-Dichloroethane	2000	1850	93	3	11	64-138	
1,2-Dichloropropane	2000	1850	93	0	12	72-131	
1,3-Dichlorobenzene	2000	1900	95	2	18	71-120	
1,4-Dichlorobenzene	2000	1870	94	2	17	72-120	
2-Butanone (MEK)	4000	5860	72	11	23	34-153	
2-Hexanone	4000	3100	77	8	12	21-184	
4-Methyl-2-pentanone (MIBK)	4000	3230	79	8	16	53-147	
Acetone	4000	11100	99	11	35	19-133	
Benzene	2000	1860	93	2	10	69-127	
Dichlorobromomethane	2000	1700	85	2	13	75-128	
Bromoform	2000	1490	75	7	13	61-135	
Bromomethane	2000	1840	92	6	35	10-148	
Carbon disulfide	2000	1720	86	0	18	46-143	
Carbon tetrachloride	2000	2010	101	0	17	53-175	
Chlorobenzene	2000	1900	95	1	12	76-120	
Chloroethane	2000	1880	94	5	35	10-141	
Chloroform	2000	1800	90	0	11	74-125	
Chloromethane	2000	1620	81	3	25	34-127	
cis-1,2-Dichloroethene	2000	1790	90	1	11	69-127	
cis-1,3-Dichloropropene	2000	1800	90	1	13	68-120	
Cyclohexane	2000	1740	87	1	35	56-135	
Chlorodibromomethane	2000	1720	86	2	15	62-131	
Dichlorodifluoromethane	2000	1730	86	3	34	45-130	
Ethylbenzene	2000	1850	92	2	15	72-121	
Isopropylbenzene	2000	1850	93	3	16	70-132	
Methyl acetate	4000	3450	86	10	14	52-139	
Methyl tert-butyl ether	2000	1850	92	4	12	67-125	
Methylcyclohexane	2000	1560	78	3	35	46-139	
Methylene Chloride	2000	847	42	5	12	52-137	F1
Styrene	2000	1860	93	1	14	74-125	
Tetrachloroethene	2000	1940	97	0	18	69-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1258061.D

Lab ID: 240-80623-A-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	2000	1870	93	1	14	69-125	
trans-1,2-Dichloroethene	2000	1870	93	3	11	66-131	
trans-1,3-Dichloropropene	2000	1690	85	3	14	59-120	
Trichloroethene	2000	1930	97	1	12	68-129	
Trichlorofluoromethane	2000	2060	103	2	26	28-172	
Vinyl chloride	2000	1830	91	1	12	55-123	
Xylenes, Total	4000	3760	94	1	14	71-122	
m-Xylene & p-Xylene	2000	1890	94	0	15	70-121	
o-Xylene	2000	1870	93	2	15	71-125	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MRC-MW16A-060717	240-80637-1	94	87	94	91
	MB 240-283071/7	92	84	95	89
	LCS 240-283071/4	93	90	95	91
	240-80623-A-4 MS	93	89	93	93
	240-80623-A-4 MSD	93	91	94	92

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Sample No.: ICIS 240-281802/9 Date Analyzed: 06/06/2017 18:29

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1257882.D Heated Purge: (Y/N) N

Calibration ID: 40321

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1014575	5.16	824174	7.81	480185	10.03
UPPER LIMIT		2029150	5.66	1648348	8.31	960370	10.53
LOWER LIMIT		507288	4.66	412087	7.31	240093	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-281802/12		1036629	5.16	839415	7.81	502274	10.03
CCVIS 240-283071/3		1280525	5.16	1001863	7.81	582824	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Sample No.: CCVIS 240-283071/3 Date Analyzed: 06/14/2017 12:56

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1258035.D Heated Purge: (Y/N) N

Calibration ID: 40324

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1280525	5.16	1001863	7.81	582824	10.03
UPPER LIMIT		2561050	5.66	2003726	8.31	1165648	10.53
LOWER LIMIT		640263	4.66	500932	7.31	291412	9.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-283071/4		1288889	5.16	1015285	7.81	581208	10.03
CCV 240-283071/5		1283641	5.16	1005436	7.81	555280	10.03
MB 240-283071/7		1225541	5.16	965702	7.81	545539	10.03
240-80637-1	MRC-MW16A-060717	1208612	5.16	967581	7.82	546645	10.03
240-80623-A-4 MS		1258322	5.16	1016867	7.81	600287	10.03
240-80623-A-4 MSD		1270675	5.16	1028496	7.81	588823	10.03

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

Method 522

1,4 Dioxane (GC/MS SIM) by Method 522

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-80637-1

SDG No.:

Lab File ID: Z25172_01.D BFB Injection Date: 05/22/2017

Instrument ID: CHZ.i BFB Injection Time: 08:50

Analysis Batch No.: 116864

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.2	
75	30.0 - 80.0 % of mass 95	45.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	76.5	
175	5.0 - 9.0 % of mass 174	5.7	(7.4) 1
176	>95.0 but <101.0 % of mass 174	74.3	(97.1) 1
177	5.0 - 9.0 % of mass 176	4.9	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-116864/3	Z25172_03.D	05/22/2017	09:38
	IC 200-116864/4	Z25172_04.D	05/22/2017	09:53
	IC 200-116864/5	Z25172_05.D	05/22/2017	10:09
	ICIS 200-116864/6	Z25172_06.D	05/22/2017	10:24
	IC 200-116864/7	Z25172_07.D	05/22/2017	10:40
	IC 200-116864/8	Z25172_08.D	05/22/2017	10:56
	IC 200-116864/9	Z25172_09.D	05/22/2017	11:11
	ICV 200-116864/10	Z25172_10.D	05/22/2017	11:27

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-80637-1 Analy Batch No.: 116864

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2017 09:38 Calibration End Date: 05/22/2017 11:11 Calibration ID: 37226

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-116864/9	Z25172_09.D
Level 2	IC 200-116864/8	Z25172_08.D
Level 3	IC 200-116864/7	Z25172_07.D
Level 4	ICIS 200-116864/6	Z25172_06.D
Level 5	IC 200-116864/5	Z25172_05.D
Level 6	IC 200-116864/4	Z25172_04.D
Level 7	IC 200-116864/3	Z25172_03.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.9749 1.0698	1.1436 1.0684	0.9868	1.0275	1.0496	Ave		1.0458			0.0500	5.5		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.6651 0.7306	0.6737 0.6961	0.6811	0.6563	0.6628	Ave		0.6808				3.8		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-80637-1 Analy Batch No.: 116864

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2017 09:38 Calibration End Date: 05/22/2017 11:11 Calibration ID: 37226

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-116864/9	Z25172_09.D
Level 2	IC 200-116864/8	Z25172_08.D
Level 3	IC 200-116864/7	Z25172_07.D
Level 4	ICIS 200-116864/6	Z25172_06.D
Level 5	IC 200-116864/5	Z25172_05.D
Level 6	IC 200-116864/4	Z25172_04.D
Level 7	IC 200-116864/3	Z25172_03.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	5903 220362	12807 562769	32262	65880	129136	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	201371 188104	188607 229166	222681	210397	203874	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-80637-1

SDG No.:

Lab Sample ID: ICV 200-116864/10 Calibration Date: 05/22/2017 11:27

Instrument ID: CHZ.i Calib Start Date: 05/22/2017 09:38

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 05/22/2017 11:11

Lab File ID: Z25172_10.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	1.046	0.9683	0.0500	185	200	-7.4	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-80637-1

SDG No.:

Lab File ID: Z25572_02.D BFB Injection Date: 06/22/2017

Instrument ID: CHZ.i BFB Injection Time: 10:26

Analysis Batch No.: 117803

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.0	
75	30.0 - 80.0 % of mass 95	48.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	74.7	
175	5.0 - 9.0 % of mass 174	5.6	(7.5) 1
176	>95.0 but <101.0 % of mass 174	72.3	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVL 200-117803/3	Z25572_03.D	06/22/2017	10:37
	LCS 200-117758/2-A	Z25572_04.D	06/22/2017	11:15
	MB 200-117758/1-A	Z25572_05.D	06/22/2017	11:31
	CCV 200-117803/18	Z25572_18.D	06/22/2017	15:00
MRC-MW16A-060717	240-80637-1	Z25572_24.D	06/22/2017	16:37
	CCV 200-117803/25	Z25572_25.D	06/22/2017	16:53

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-80637-1

SDG No.:

Lab Sample ID: CCVL 200-117803/3 Calibration Date: 06/22/2017 10:37

Instrument ID: CHZ.i Calib Start Date: 05/22/2017 09:38

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 05/22/2017 11:11

Lab File ID: Z25572_03.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	1.046	0.8628	0.0500	8.25	10.0	-17.5	50.0
1,4-Dioxane-d8 (Surr)	Ave	0.6808	0.5789	0.0500	425	500	-15.0	50.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-80637-1

SDG No.:

Lab Sample ID: CCV 200-117803/18 Calibration Date: 06/22/2017 15:00

Instrument ID: CHZ.i Calib Start Date: 05/22/2017 09:38

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 05/22/2017 11:11

Lab File ID: Z25572_18.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	1.046	0.998	0.0500	95.4	100	-4.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6808	0.6430	0.0500	472	500	-5.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-80637-1

SDG No.:

Lab Sample ID: CCV 200-117803/25 Calibration Date: 06/22/2017 16:53

Instrument ID: CHZ.i Calib Start Date: 05/22/2017 09:38

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 05/22/2017 11:11

Lab File ID: Z25572_25.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	1.046	1.013	0.0500	775	800	-3.1	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6808	0.6654	0.0500	489	500	-2.3	30.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-80637-1

SDG No.:

Lab File ID: Z25572_05.D Lab Sample ID: MB 200-117758/1-A

Matrix: Water Date Extracted: 06/21/2017 14:30

Instrument ID: CHZ.i Date Analyzed: 06/22/2017 11:31

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-117758/2-A	Z25572_04.D	06/22/2017 11:15
MRC-MW16A-060717	240-80637-1	Z25572_24.D	06/22/2017 16:37

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-80637-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 200-117758/1-A

Matrix: Water | Lab File ID: Z25572_05.D

Analysis Method: 522 | Date Collected:

Extract. Method: 3535A | Date Extracted: 06/21/2017 14:30

Sample wt/vol: 100(mL) | Date Analyzed: 06/22/2017 11:31

Con. Extract Vol.: 2000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 117803 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.057	U	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	97		46-130

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-80637-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z25572_04.D

Lab ID: LCS 200-117758/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	2.00	100	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-80637-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-MW16A-060717	240-80637-1	84
	MB 200-117758/1-A	97
	LCS 200-117758/2-A	94

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-80637-1

SDG No.:

Sample No.: ICIS 200-116864/6 Date Analyzed: 05/22/2017 10:24

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z25172_06.D Heated Purge: (Y/N) N

Calibration ID: 37226

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		320582	3.45				
UPPER LIMIT		480873	3.95				
LOWER LIMIT		160291	2.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-116864/10		320849	3.45				
CCVL 200-117803/3		249006	3.47				
LCS 200-117758/2-A		225401	3.45				
MB 200-117758/1-A		209916	3.44				
CCV 200-117803/18		209963	3.41				
240-80637-1	MRC-MW16A-060717	207639	3.43				
CCV 200-117803/25		203870	3.42				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-80637-1

SDG No.:

Project: MRC 2017 GW

Client Sample ID	Lab Sample ID
MRC-MW16A-060717	240-80637-1

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

ICV Source: MTMSICVW_00076 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00194

Analyte	ICV 240-283009/7 06/13/2017 09:32				CCV 240-283009/38 06/13/2017 12:35				CCV 240-283009/50 06/13/2017 13:26			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.7		40.0	99	50.4		50.0	101	51.1		50.0	102
Arsenic	41.5		40.0	104	50.2		50.0	100	50.9		50.0	102
Barium	39.5		40.0	99	49.7		50.0	99	50.6		50.0	101
Cadmium	40.3		40.0	101	51.1		50.0	102	51.8		50.0	104
Chromium	40.5		40.0	101	51.2		50.0	102	52.2		50.0	104
Cobalt	40.7		40.0	102	51.6		50.0	103	52.5		50.0	105
Copper	40.6		40.0	102	50.5		50.0	101	51.7		50.0	103
Iron	10200		10000	102	13000		12500	104	13100		12500	105
Lead	40.4		40.0	101	51.1		50.0	102	51.0		50.0	102
Manganese	200		200	100	249		250	100	252		250	101
Molybdenum	39.0		40.0	97	51.6		50.0	103	51.9		50.0	104
Nickel	39.7		40.0	99	50.0		50.0	100	50.1		50.0	100
Selenium	41.7		40.0	104	49.9		50.0	100	51.5		50.0	103
Silver	39.9		40.0	100	50.8		50.0	102	51.0		50.0	102
Thallium	39.5		40.0	99	50.3		50.0	101	50.3		50.0	101
Vanadium	40.7		40.0	102	50.8		50.0	102	51.6		50.0	103
Zinc	40.4		40.0	101	51.4		50.0	103	52.3		50.0	105
Beryllium	40.1		40.0	100	52.1		50.0	104	53.0		50.0	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

ICV Source: MTMSICVW_00076 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00194

Analyte	CCV 240-283009/62 06/13/2017 14:15											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.7		50.0	101								
Arsenic	49.9		50.0	100								
Barium	49.9		50.0	100								
Cadmium	51.2		50.0	102								
Chromium	51.0		50.0	102								
Cobalt	51.5		50.0	103								
Copper	50.5		50.0	101								
Iron	12800		12500	102								
Lead	50.5		50.0	101								
Manganese	246		250	98								
Molybdenum	50.6		50.0	101								
Nickel	48.8		50.0	98								
Selenium	50.1		50.0	100								
Silver	50.1		50.0	100								
Thallium	50.0		50.0	100								
Vanadium	49.9		50.0	100								
Zinc	50.7		50.0	101								
Beryllium	52.3		50.0	105								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

ICV Source: MTMSCRI6020AW_00056 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00056

Analyte	ICVL 240-283009/9 06/13/2017 09:40				CCVL 240-283009/136 06/13/2017 19:39							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.06		2.00	103	2.01		2.00	100				
Arsenic	5.20		5.00	104	4.93	J	5.00	99				
Barium	4.84	J	5.00	97	4.94	J	5.00	99				
Cadmium	1.08		1.00	108	1.05		1.00	105				
Chromium	2.09		2.00	105	2.12		2.00	106				
Cobalt	1.04		1.00	104	1.05		1.00	105				
Copper	2.13		2.00	106	1.96	J	2.00	98				
Iron	113		100	113	113		100	113				
Lead	1.02		1.00	102	0.915	J	1.00	92				
Manganese	4.90	J	5.00	98	4.95	J	5.00	99				
Molybdenum	4.98	J	5.00	100	4.85	J	5.00	97				
Nickel	2.09		2.00	104	1.96	J	2.00	98				
Selenium	5.27		5.00	105	5.40		5.00	108				
Silver	1.04		1.00	104	1.03		1.00	103				
Thallium	1.04		1.00	104	0.984	J	1.00	98				
Vanadium	5.06		5.00	101	4.95	J	5.00	99				
Zinc	21.1		20.0	105	20.4		20.0	102				
Beryllium	0.905	J	1.00	91	1.03		1.00	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

ICV Source: MTMSICVW_00076 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00193

Analyte	ICV 240-283213/7 06/14/2017 13:19				CCV 240-283213/40 06/14/2017 15:40				CCV 240-283213/48 06/14/2017 16:14			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	41.4		40.0	103	49.5		50.0	99	48.6		50.0	97
Antimony	40.8		40.0	102	50.9		50.0	102	50.6		50.0	101
Arsenic	40.9		40.0	102	48.1		50.0	96	48.1		50.0	96
Barium	39.6		40.0	99	49.3		50.0	99	48.7		50.0	97
Cadmium	40.5		40.0	101	50.0		50.0	100	50.0		50.0	100
Chromium	40.6		40.0	101	50.0		50.0	100	50.3		50.0	101
Cobalt	39.0		40.0	98	47.5		50.0	95	47.8		50.0	96
Copper	40.3		40.0	101	48.0		50.0	96	48.4		50.0	97
Iron	10100		10000	101	12600		12500	101	12600		12500	101
Lead	41.2		40.0	103	50.9		50.0	102	50.2		50.0	100
Manganese	201		200	101	249		250	99	250		250	100
Molybdenum	40.0		40.0	100	50.7		50.0	101	50.8		50.0	102
Nickel	41.0		40.0	103	51.6		50.0	103	51.3		50.0	103
Selenium	40.3		40.0	101	50.0		50.0	100	48.1		50.0	96
Silver	40.6		40.0	102	49.8		50.0	100	50.6		50.0	101
Thallium	40.1		40.0	100	49.4		50.0	99	48.9		50.0	98
Vanadium	41.8		40.0	104	49.4		50.0	99	49.9		50.0	100
Zinc	42.0		40.0	105	51.2		50.0	102	52.5		50.0	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

ICV Source: MTMSCRI6020AW_00056 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00056

Analyte	ICVL 240-283213/9 06/14/2017 13:28				CCVL 240-283213/82 06/14/2017 18:36							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	0.929	J	1.00	93	0.988	J	1.00	99				
Antimony	2.03		2.00	101	2.00		2.00	100				
Arsenic	4.98	J	5.00	100	4.84	J	5.00	97				
Barium	4.94	J	5.00	99	4.85	J	5.00	97				
Cadmium	1.03		1.00	103	0.958	J	1.00	96				
Chromium	2.13		2.00	107	2.09		2.00	104				
Cobalt	0.971	J	1.00	97	0.963	J	1.00	96				
Copper	1.97	J	2.00	98	1.92	J	2.00	96				
Iron	115		100	115	117		100	117				
Lead	1.06		1.00	106	1.12		1.00	112				
Manganese	4.58	J	5.00	92	5.15		5.00	103				
Molybdenum	5.05	J	5.00	101	4.84	J	5.00	97				
Nickel	2.24		2.00	112	2.19		2.00	110				
Selenium	5.62		5.00	112	4.91	J	5.00	98				
Silver	1.04		1.00	104	1.05		1.00	105				
Thallium	1.02		1.00	102	1.01		1.00	101				
Vanadium	5.14		5.00	103	4.92	J	5.00	98				
Zinc	21.8		20.0	109	22.8		20.0	114				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

ICV Source: MTHgICV_00001_00184 Concentration Units: ug/L

CCV Source: MTHGCALW_01528

Analyte	ICV 240-282654/7-A 06/13/2017 09:05				CCV 240-282654/10-A 06/13/2017 16:51				CCV 240-282654/10-A 06/13/2017 17:16			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.74		5.00	95	5.01		5.00	100	5.02		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

ICV Source: MTHgICV_00001_00184 Concentration Units: ug/L

CCV Source: MTHGCALW_01528

Analyte	CCV 240-282654/10-A 06/13/2017 17:40											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.17		5.00	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-282654/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01528

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.254		127	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-283009/8 06/13/2017 09:36		CCB 240-283009/39 06/13/2017 12:39		CCB 240-283009/51 06/13/2017 13:30		CCB 240-283009/63 06/13/2017 14:20	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Iron	100	47	U	47	U	47	U	47	U
Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Molybdenum	10	1.1	U	1.1	U	1.1	U	1.1	U
Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-283213/8 06/14/2017 13:23		CCB 240-283213/41 06/14/2017 15:44		CCB 240-283213/49 06/14/2017 16:18			
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	0.31	U	0.31	U	0.31	U		
Antimony	2.0	0.57	U	0.57	U	0.57	U		
Arsenic	5.0	0.75	U	0.75	U	0.75	U		
Barium	5.0	2.2	U	2.2	U	2.2	U		
Cadmium	1.0	0.21	U	0.21	U	0.21	U		
Chromium	2.0	0.98	U	0.98	U	0.98	U		
Cobalt	1.0	0.19	U	0.19	U	0.19	U		
Copper	2.0	1.7	U	1.7	U	1.7	U		
Iron	100	47	U	47	U	47	U		
Lead	1.0	0.45	U	0.45	U	0.45	U		
Manganese	5.0	2.1	U	2.1	U	2.1	U		
Molybdenum	10	1.1	U	1.1	U	1.1	U		
Nickel	2.0	1.5	U	1.5	U	1.5	U		
Selenium	5.0	0.89	U	0.89	U	0.89	U		
Silver	1.0	0.053	U	0.053	U	0.053	U		
Thallium	1.0	0.20	U	0.20	U	0.20	U		
Vanadium	5.0	0.82	U	0.82	U	0.82	U		
Zinc	20	15	U	15	U	15	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-282654/8-A 06/13/2017 09:07		CCB 240-282654/11-A 06/13/2017 16:53		CCB 240-282654/11-A 06/13/2017 17:18		CCB 240-282654/11-A 06/13/2017 17:42	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-282755/1-A

Instrument Code: I10 Batch No.: 283009

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-50-8	Copper	3.35			6020A
7439-89-6	Iron	47	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15.2	J		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-282755/1-A

Instrument Code: I10 Batch No.: 283213

CAS No.	Analyte	Concentration	C	Q	Method
7440-41-7	Beryllium	0.31	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-282759/1-A

Instrument Code: H3 Batch No.: 283042

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab Sample ID: ICSA 240-283009/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00079

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0660**	
Arsenic		**0.0590**	
Barium		**0.0430**	
Cadmium		**0.106**	
Chromium		**0.665**	
Cobalt		**-0.0120**	
Copper		**0.336**	
Iron	**50000**	**51432**	**103**
Lead		**0.0850**	
Manganese		**-0.0630**	
Molybdenum	**1000**	**1081**	**108**
Nickel		**0.0550**	
Selenium		**0.170**	
Silver		**0.0160**	
Thallium		**0.0050**	
Vanadium		**-0.0380**	
Zinc		**-0.266**	
Aluminum	*50000*	*51907*	*104*
Beryllium		*0.0070*	
Boron		*1.51*	
Calcium	*50000*	*51195*	*102*
Lithium		*0.266*	
Magnesium	*50000*	*51156*	*102*
Potassium	*50000*	*51510*	*103*
Sodium	*50000*	*51903*	*104*
Strontium		*0.290*	
Tin		*-0.0150*	
Titanium	*1000*	*1010*	*101*
Tungsten		*0.178*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab Sample ID: ICSAB 240-283009/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00077

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**102**	**102**
Arsenic	**100**	**103**	**103**
Barium	**100**	**103**	**103**
Cadmium	**100**	**101**	**101**
Chromium	**100**	**104**	**104**
Cobalt	**100**	**103**	**103**
Copper	**100**	**102**	**102**
Iron	**50000**	**51750**	**104**
Lead	**100**	**107**	**107**
Manganese	**100**	**102**	**102**
Molybdenum	**1100**	**1189**	**108**
Nickel	**100**	**101**	**101**
Selenium	**100**	**99.5**	**100**
Silver	**100**	**100**	**100**
Thallium	**100**	**109**	**109**
Vanadium	**100**	**104**	**104**
Zinc	**100**	**102**	**102**
Aluminum	*50000*	*51886*	*104*
Beryllium	*100*	*106*	*106*
Boron	*100*	*108*	*108*
Calcium	*50000*	*51400*	*103*
Lithium	*100*	*109*	*109*
Magnesium	*50000*	*51134*	*102*
Potassium	*50000*	*51430*	*103*
Sodium	*50000*	*51407*	*103*
Strontium	*100*	*100*	*100*
Tin	*100*	*103*	*103*
Titanium	*1100*	*1122*	*102*
Tungsten	*100*	*102*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab Sample ID: ICSA 240-283213/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00079

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Beryllium		**0.0180**	
Aluminum	*50000*	*51913*	*104*
Antimony		*0.0650*	
Arsenic		*0.0710*	
Barium		*0.0540*	
Boron		*2.05*	
Cadmium		*0.0700*	
Calcium	*50000*	*51862*	*104*
Chromium		*0.704*	
Cobalt		*0.0250*	
Copper		*0.316*	
Iron	*50000*	*51183*	*102*
Lead		*0.122*	
Lithium		*0.258*	
Magnesium	*50000*	*51030*	*102*
Manganese		*-0.123*	
Molybdenum	*1000*	*1086*	*109*
Nickel		*0.0780*	
Potassium	*50000*	*51405*	*103*
Selenium		*0.0850*	
Silver		*0.0140*	
Sodium	*50000*	*51394*	*103*
Strontium		*0.306*	
Thallium		*0.0060*	
Tin		*0.0270*	
Titanium	*1000*	*1045*	*104*
Tungsten		*0.180*	
Vanadium		*0.0980*	
Zinc		*-0.598*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Lab Sample ID: ICSAB 240-283213/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00077

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Beryllium	**100**	**107**	**107**
Aluminum	*50000*	*51708*	*103*
Antimony	*100*	*102*	*102*
Arsenic	*100*	*99.1*	*99*
Barium	*100*	*102*	*102*
Boron	*100*	*111*	*111*
Cadmium	*100*	*99.2*	*99*
Calcium	*50000*	*51350*	*103*
Chromium	*100*	*102*	*102*
Cobalt	*100*	*99.7*	*100*
Copper	*100*	*100*	*100*
Iron	*50000*	*50707*	*101*
Lead	*100*	*106*	*106*
Lithium	*100*	*111*	*111*
Magnesium	*50000*	*50707*	*101*
Manganese	*100*	*103*	*103*
Molybdenum	*1100*	*1193*	*108*
Nickel	*100*	*103*	*103*
Potassium	*50000*	*50765*	*102*
Selenium	*100*	*97.9*	*98*
Silver	*100*	*101*	*101*
Sodium	*50000*	*50887*	*102*
Strontium	*100*	*101*	*101*
Thallium	*100*	*105*	*105*
Tin	*100*	*102*	*102*
Titanium	*1100*	*1140*	*104*
Tungsten	*100*	*105*	*105*
Vanadium	*100*	*101*	*101*
Zinc	*100*	*104*	*104*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-80672-L-3-B MS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	101		0.57	U	100	101	75-125		6020A
Arsenic	1030		3.5	J	1000	103	75-125		6020A
Barium	1200		130		1000	107	75-125		6020A
Cadmium	1070		0.21	U	1000	107	75-125		6020A
Cobalt	1060		0.44	J	1000	105	75-125		6020A
Chromium	1040		0.98	U	1000	104	75-125		6020A
Copper	1040		1.7	U	1000	104	75-125		6020A
Iron	11700		1300		10000	105	75-125		6020A
Molybdenum	102		1.1	U	100	102	75-125		6020A
Manganese	1340		330		1000	102	75-125		6020A
Nickel	1010		1.5	U	1000	101	75-125		6020A
Lead	1030		0.45	U	1000	103	75-125		6020A
Selenium	988		0.89	U	1000	99	75-125		6020A
Thallium	254		0.20	U	250	102	75-125		6020A
Vanadium	1040		0.82	U	1000	104	75-125		6020A
Zinc	973		15	U	1000	97	75-125		6020A
Silver	101		0.053	U	100	101	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-80672-L-3-E MS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.04		0.13	U	1.00	104	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-80672-L-3-C MSD

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	101		100	101	75-125	0	20		6020A
Arsenic	1050		1000	104	75-125	1	20		6020A
Barium	1210		1000	108	75-125	1	20		6020A
Cadmium	1100		1000	110	75-125	2	20		6020A
Cobalt	1080		1000	108	75-125	2	20		6020A
Chromium	1060		1000	106	75-125	2	20		6020A
Copper	1070		1000	107	75-125	2	20		6020A
Iron	11600		10000	104	75-125	1	20		6020A
Molybdenum	103		100	103	75-125	2	20		6020A
Manganese	1360		1000	103	75-125	1	20		6020A
Nickel	1040		1000	104	75-125	3	20		6020A
Lead	1030		1000	103	75-125	0	20		6020A
Selenium	1000		1000	100	75-125	1	20		6020A
Thallium	253		250	101	75-125	0	20		6020A
Vanadium	1050		1000	105	75-125	1	20		6020A
Zinc	982		1000	98	75-125	1	20		6020A
Silver	104		100	104	75-125	2	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: _____ Lab ID: 240-80672-L-3-F MSD

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.: _____

Matrix: Water Concentration Units: ug/L

% Solids: _____

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.873		1.00	87	80-120	17	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-282755/2-A

Lab Name: TestAmerica Canton Job No.: 240-80637-1

Sample Matrix: Water LCS Source: MTICPMSB_00031

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	101		101	80	120		6020A
Arsenic	1000	1040		104	80	120		6020A
Barium	1000	1080		108	80	120		6020A
Cadmium	1000	1130		113	80	120		6020A
Cobalt	1000	1100		110	80	120		6020A
Chromium	1000	1050		105	80	120		6020A
Copper	1000	1080		108	80	120		6020A
Iron	10000	10600		106	80	120		6020A
Molybdenum	100	99.6		100	80	120		6020A
Manganese	1000	1040		104	80	120		6020A
Nickel	1000	1060		106	80	120		6020A
Lead	1000	1070		107	80	120		6020A
Selenium	1000	1030		103	80	120		6020A
Thallium	250	264		106	80	120		6020A
Vanadium	1000	1040		104	80	120		6020A
Zinc	1000	1040		104	80	120		6020A
Silver	100	104		104	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-282755/2-A

Lab Name: TestAmerica Canton Job No.: 240-80637-1

Sample Matrix: Water LCS Source: MTICPMSA_00031

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Beryllium	1000	1070		107	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-282759/2-A

Lab Name: TestAmerica Canton Job No.: 240-80637-1

Sample Matrix: Water LCS Source: MTHGCALW_01528

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.52		90	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-80672-L-3-A SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-80637-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	3.5	J	3.8	U	NC		6020A
Barium	130		125		NC		6020A
Cadmium	0.21	U	1.1	U	NC		6020A
Cobalt	0.44	J	0.95	U	NC		6020A
Chromium	0.98	U	4.9	U	NC		6020A
Copper	1.7	U	8.5	U	NC		6020A
Iron	1300		1350		NC		6020A
Molybdenum	1.1	U	5.4	U	NC		6020A
Manganese	330		331		NC		6020A
Nickel	1.5	U	7.4	U	NC		6020A
Lead	0.45	U	2.3	U	NC		6020A
Selenium	0.89	U	4.5	U	NC		6020A
Thallium	0.20	U	1.0	U	NC		6020A
Vanadium	0.82	U	4.1	U	NC		6020A
Zinc	15	U	75	U	NC		6020A
Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-80637-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Lead	208.00	1	0.45
Molybdenum	95.00	10	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82
Zinc	66.00	20	15

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-80637-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Lead	208.00	1	0.45
Molybdenum	95.00	10	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82
Zinc	66.00	20	15

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-80637-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-80637-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-80637-1

SDG No.:

Instrument ID: I10 Date: 04/19/2017 14:43

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Arsenic		10000	6020A
Barium		10000	6020A
Beryllium		2000	6020A
Cadmium		4000	6020A
Cobalt		5000	6020A
Chromium		10000	6020A
Copper		10000	6020A
Molybdenum		2000	6020A
Nickel		10000	6020A
Lead		4000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Vanadium		10000	6020A
Zinc		10000	6020A
Silver		300	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-282755/1-A	06/12/2017 15:00	282755		50	50
LCS 240-282755/2-A	06/12/2017 15:00	282755		50	50
240-80672-L-3-B MS	06/12/2017 15:00	282755		50	50
240-80672-L-3-C MSD	06/12/2017 15:00	282755		50	50
240-80637-1	06/12/2017 15:00	282755		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-282759/1-A	06/12/2017 15:00	282759		50	50
LCS 240-282759/2-A	06/12/2017 15:00	282759		50	50
240-80672-L-3-E MS	06/12/2017 15:00	282759		50	50
240-80672-L-3-F MSD	06/12/2017 15:00	282759		50	50
240-80637-1	06/12/2017 15:00	282759		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/13/2017 09:06 End Date: 06/14/2017 04:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			09:06																									
ICIS 240-283009/2			09:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-283009/3 IC	1		09:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-283009/4 IC	1		09:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-283009/5 IC	1		09:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-283009/6 IC	1		09:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-283009/7	1		09:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-283009/8	1		09:36	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ICVL 240-283009/9	1		09:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-283009/10	1		09:44	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X								
ICSAB 240-283009/11	1		09:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-283009/12			09:53																									
CCB 240-283009/13			09:57																									
CCV 240-283009/14			10:54																									
CCB 240-283009/15			10:58																									
ZZZZZZ			11:02																									
ZZZZZZ			11:06																									
ZZZZZZ			11:10																									
ZZZZZZ			11:15																									
ZZZZZZ			11:20																									
ZZZZZZ			11:24																									
ZZZZZZ			11:28																									
ZZZZZZ			11:32																									
ZZZZZZ			11:36																									
ZZZZZZ			11:40																									
CCV 240-283009/26			11:45																									
CCB 240-283009/27			11:49																									
ZZZZZZ			11:53																									
ZZZZZZ			11:57																									
ZZZZZZ			12:01																									
ZZZZZZ			12:06																									
ZZZZZZ			12:10																									
ZZZZZZ			12:14																									
ZZZZZZ			12:18																									
ZZZZZZ			12:23																									
ZZZZZZ			12:27																									
ZZZZZZ			12:31																									
CCV 240-283009/38	1		12:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-283009/39	1		12:39	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			12:44																									
ZZZZZZ			12:48																									
ZZZZZZ			12:52																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/13/2017 09:06 End Date: 06/14/2017 04:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			12:56																									
ZZZZZZ			13:00																									
ZZZZZZ			13:05																									
MB 240-282755/1-A	1	R	13:09	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
LCS 240-282755/2-A	1	R	13:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			13:17																									
240-80672-L-3-A SD ^5	5	D	13:22	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
CCV 240-283009/50	1		13:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-283009/51	1		13:30	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			13:34																									
240-80672-L-3-B MS	1	D	13:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-80672-L-3-C MSD	1	D	13:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-80637-1	1	R	13:46	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			13:50																									
ZZZZZZ			13:54																									
ZZZZZZ			13:59																									
ZZZZZZ			14:03																									
ZZZZZZ			14:07																									
ZZZZZZ			14:11																									
CCV 240-283009/62	1		14:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-283009/63	1		14:20	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X								
ZZZZZZ			14:24																									
ZZZZZZ			14:28																									
ZZZZZZ			14:32																									
ZZZZZZ			14:36																									
ZZZZZZ			14:41																									
ZZZZZZ			14:45																									
ZZZZZZ			14:50																									
ZZZZZZ			14:54																									
ZZZZZZ			14:58																									
ZZZZZZ			15:02																									
CCV 240-283009/74			15:06																									
CCB 240-283009/75			15:11																									
ZZZZZZ			15:15																									
ZZZZZZ			15:19																									
ZZZZZZ			15:36																									
CCV 240-283009/79			15:40																									
CCB 240-283009/80			15:44																									
ZZZZZZ			15:49																									
ZZZZZZ			15:53																									
ZZZZZZ			15:57																									
ZZZZZZ			16:01																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/13/2017 09:06 End Date: 06/14/2017 04:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			16:05																									
ZZZZZZ			16:10																									
ZZZZZZ			16:14																									
ZZZZZZ			16:18																									
ZZZZZZ			16:23																									
ZZZZZZ			16:27																									
CCV 240-283009/91			16:31																									
CCB 240-283009/92			16:35																									
ZZZZZZ			16:40																									
ZZZZZZ			16:44																									
ZZZZZZ			16:48																									
ZZZZZZ			16:52																									
ZZZZZZ			16:56																									
ZZZZZZ			17:00																									
ZZZZZZ			17:04																									
ZZZZZZ			17:08																									
ZZZZZZ			17:12																									
ZZZZZZ			17:16																									
CCV 240-283009/103			17:20																									
CCB 240-283009/104			17:25																									
ZZZZZZ			17:29																									
ZZZZZZ			17:33																									
ZZZZZZ			17:37																									
ZZZZZZ			17:42																									
ZZZZZZ			17:46																									
ZZZZZZ			17:50																									
ZZZZZZ			17:54																									
ZZZZZZ			17:58																									
ZZZZZZ			18:03																									
ZZZZZZ			18:07																									
CCV 240-283009/115			18:11																									
CCB 240-283009/116			18:15																									
ZZZZZZ			18:19																									
ZZZZZZ			18:23																									
ZZZZZZ			18:27																									
ZZZZZZ			18:31																									
ZZZZZZ			18:35																									
ZZZZZZ			18:40																									
ZZZZZZ			18:44																									
ZZZZZZ			18:48																									
ZZZZZZ			18:52																									
ZZZZZZ			18:56																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/13/2017 09:06 End Date: 06/14/2017 04:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCV 240-283009/127			19:00																									
CCB 240-283009/128			19:05																									
ZZZZZZ			19:09																									
ZZZZZZ			19:13																									
ZZZZZZ			19:18																									
ZZZZZZ			19:22																									
ZZZZZZ			19:26																									
CCV 240-283009/134			19:30																									
CCB 240-283009/135			19:34																									
CCVL 240-283009/136	1		19:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-283009/137			19:43																									
ICSAB 240-283009/138			19:47																									
ZZZZZZ			19:51																									
ZZZZZZ			19:56																									
ZZZZZZ			20:00																									
ZZZZZZ			20:04																									
ZZZZZZ			20:08																									
ZZZZZZ			20:12																									
ZZZZZZ			20:16																									
ZZZZZZ			20:21																									
ZZZZZZ			20:25																									
CCV 240-283009/148			20:29																									
CCB 240-283009/149			20:33																									
ZZZZZZ			20:37																									
ZZZZZZ			20:42																									
ZZZZZZ			20:46																									
ZZZZZZ			20:50																									
CCV 240-283009/154			20:54																									
CCB 240-283009/155			20:58																									
CCVL 240-283009/156			21:02																									
ZZZZZZ			21:07																									
ZZZZZZ			21:11																									
ZZZZZZ			21:15																									
ZZZZZZ			21:19																									
ZZZZZZ			21:24																									
ZZZZZZ			21:28																									
ZZZZZZ			21:32																									
ZZZZZZ			21:36																									
ZZZZZZ			21:40																									
CCV 240-283009/166			21:45																									
CCB 240-283009/167			21:49																									
ZZZZZZ			21:53																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/13/2017 09:06 End Date: 06/14/2017 04:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			21:57																									
ZZZZZZ			22:01																									
ZZZZZZ			22:05																									
ZZZZZZ			22:09																									
ZZZZZZ			22:14																									
ZZZZZZ			22:18																									
ZZZZZZ			22:23																									
ZZZZZZ			22:27																									
ZZZZZZ			22:31																									
CCV 240-283009/178			22:35																									
CCB 240-283009/179			22:39																									
ZZZZZZ			22:44																									
ZZZZZZ			22:48																									
ZZZZZZ			22:52																									
ZZZZZZ			22:56																									
ZZZZZZ			23:00																									
ZZZZZZ			23:04																									
ZZZZZZ			23:08																									
CCV 240-283009/187			23:12																									
CCB 240-283009/188			23:17																									
CCVL 240-283009/189			23:21																									
ZZZZZZ			23:25																									
ZZZZZZ			23:29																									
ZZZZZZ			23:34																									
ZZZZZZ			23:38																									
ZZZZZZ			23:42																									
ZZZZZZ			23:46																									
ZZZZZZ			23:50																									
ZZZZZZ			23:54																									
ZZZZZZ			23:59																									
ZZZZZZ			00:03																									
ZZZZZZ			00:07																									
CCV 240-283009/201			00:11																									
CCB 240-283009/202			00:16																									
ZZZZZZ			00:20																									
ZZZZZZ			00:24																									
ZZZZZZ			00:28																									
ZZZZZZ			00:32																									
ZZZZZZ			00:37																									
ZZZZZZ			00:41																									
ZZZZZZ			00:45																									
ZZZZZZ			00:49																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/13/2017 09:06 End Date: 06/14/2017 04:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			00:53																									
ZZZZZZ			00:57																									
CCV 240-283009/213			01:01																									
CCB 240-283009/214			01:06																									
ZZZZZZ			01:10																									
ZZZZZZ			01:14																									
ZZZZZZ			01:19																									
ZZZZZZ			01:23																									
ZZZZZZ			01:27																									
ZZZZZZ			01:31																									
ZZZZZZ			01:35																									
ZZZZZZ			01:40																									
ZZZZZZ			01:44																									
CCV 240-283009/224			01:48																									
CCB 240-283009/225			01:52																									
CCVL 240-283009/226			01:57																									
ZZZZZZ			02:01																									
ZZZZZZ			02:05																									
ZZZZZZ			02:09																									
ZZZZZZ			02:13																									
ZZZZZZ			02:17																									
ZZZZZZ			02:22																									
ZZZZZZ			02:26																									
ZZZZZZ			02:30																									
ZZZZZZ			02:34																									
CCV 240-283009/236			02:38																									
CCB 240-283009/237			02:43																									
ZZZZZZ			02:47																									
ZZZZZZ			02:51																									
ZZZZZZ			02:55																									
ZZZZZZ			02:59																									
ZZZZZZ			03:03																									
ZZZZZZ			03:07																									
ZZZZZZ			03:12																									
ZZZZZZ			03:16																									
ZZZZZZ			03:20																									
ZZZZZZ			03:24																									
CCV 240-283009/248			03:28																									
CCB 240-283009/249			03:33																									
ZZZZZZ			03:37																									
ZZZZZZ			03:41																									
ZZZZZZ			03:45																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/13/2017 09:06 End Date: 06/14/2017 04:44

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			03:49																									
ZZZZZZ			03:53																									
ZZZZZZ			03:58																									
ZZZZZZ			04:02																									
ZZZZZZ			04:06																									
ZZZZZZ			04:10																									
ZZZZZZ			04:15																									
CCV 240-283009/260			04:19																									
CCB 240-283009/261			04:23																									
ZZZZZZ			04:28																									
ZZZZZZ			04:32																									
ZZZZZZ			04:36																									
CCV 240-283009/265			04:40																									
CCB 240-283009/266			04:44																									

Prep Types:
D = Dissolved
R = Total Recoverable

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/14/2017 12:54 End Date: 06/15/2017 04:48

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			12:54																									
ICIS 240-283213/2			12:58	X																								
STD1 240-283213/3 IC	1		13:02	X																								
STD2 240-283213/4 IC	1		13:07	X																								
STD3 240-283213/5 IC	1		13:11	X																								
STD4 240-283213/6 IC	1		13:15	X																								
ICV 240-283213/7	1		13:19	X																								
ICB 240-283213/8	1		13:23	X																								
ICVL 240-283213/9	1		13:28	X																								
ICSA 240-283213/10	1		13:32	X																								
ICSAB 240-283213/11	1		13:36	X																								
CCV 240-283213/12			13:40																									
CCB 240-283213/13			13:44																									
ZZZZZZ			13:51																									
ZZZZZZ			13:56																									
ZZZZZZ			14:00																									
ZZZZZZ			14:04																									
CCV 240-283213/18			14:08																									
CCB 240-283213/19			14:12																									
ZZZZZZ			14:16																									
ZZZZZZ			14:21																									
CCV 240-283213/22			14:26																									
CCB 240-283213/23			14:30																									
ZZZZZZ			14:34																									
ZZZZZZ			14:38																									
ZZZZZZ			14:43																									
ZZZZZZ			14:47																									
ZZZZZZ			14:51																									
ZZZZZZ			14:55																									
CCV 240-283213/30			14:59																									
CCB 240-283213/31			15:03																									
CCVL 240-283213/32			15:07																									
ZZZZZZ			15:12																									
ZZZZZZ			15:16																									
ZZZZZZ			15:20																									
ZZZZZZ			15:24																									
ZZZZZZ			15:28																									
ZZZZZZ			15:32																									
ZZZZZZ			15:36																									
CCV 240-283213/40	1		15:40	X																								
CCB 240-283213/41	1		15:44	X																								
CCVL 240-283213/42			15:49																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/14/2017 12:54 End Date: 06/15/2017 04:48

Lab Sample Id	D/F	Type	Time	Analytes
				Be
ZZZZZZ			15:53	
ZZZZZZ			15:57	
MB 240-282755/1-A	1	R	16:01	X
LCS 240-282755/2-A	1	R	16:05	X
240-80637-1	1	R	16:09	X
CCV 240-283213/48	1		16:14	X
CCB 240-283213/49	1		16:18	X
ZZZZZZ			16:22	
ZZZZZZ			16:27	
ZZZZZZ			16:31	
ZZZZZZ			16:35	
ZZZZZZ			16:39	
ZZZZZZ			16:43	
ZZZZZZ			16:47	
ZZZZZZ			16:51	
ZZZZZZ			16:55	
ZZZZZZ			16:59	
CCV 240-283213/60			17:04	
CCB 240-283213/61			17:08	
ZZZZZZ			17:12	
ZZZZZZ			17:16	
ZZZZZZ			17:20	
ZZZZZZ			17:25	
ZZZZZZ			17:29	
ZZZZZZ			17:33	
ZZZZZZ			17:37	
ZZZZZZ			17:41	
ZZZZZZ			17:45	
ZZZZZZ			17:49	
CCV 240-283213/72			17:54	
CCB 240-283213/73			17:58	
ZZZZZZ			18:02	
ZZZZZZ			18:06	
ZZZZZZ			18:10	
ZZZZZZ			18:14	
ZZZZZZ			18:19	
ZZZZZZ			18:23	
CCV 240-283213/80			18:27	
CCB 240-283213/81			18:31	
CCVL 240-283213/82	1		18:36	X
ZZZZZZ			18:40	
ZZZZZZ			18:44	

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/14/2017 12:54 End Date: 06/15/2017 04:48

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			18:48																									
ZZZZZZ			18:52																									
ZZZZZZ			18:56																									
ZZZZZZ			19:00																									
ZZZZZZ			19:05																									
ZZZZZZ			19:09																									
ZZZZZZ			19:13																									
CCV 240-283213/92			19:18																									
CCB 240-283213/93			19:22																									
ZZZZZZ			19:26																									
ZZZZZZ			19:31																									
ZZZZZZ			19:35																									
ZZZZZZ			19:39																									
ZZZZZZ			19:43																									
ZZZZZZ			19:47																									
ZZZZZZ			19:52																									
ZZZZZZ			19:56																									
ZZZZZZ			20:00																									
ZZZZZZ			20:04																									
CCV 240-283213/104			20:09																									
CCB 240-283213/105			20:13																									
ZZZZZZ			20:17																									
ZZZZZZ			20:21																									
ZZZZZZ			20:25																									
ZZZZZZ			20:30																									
ZZZZZZ			20:34																									
ZZZZZZ			20:38																									
ZZZZZZ			20:43																									
CCV 240-283213/113			20:47																									
CCB 240-283213/114			20:51																									
CCVL 240-283213/115			20:55																									
ICSA 240-283213/116			20:59																									
ICSAB 240-283213/117			21:04																									
ZZZZZZ			21:08																									
ZZZZZZ			21:12																									
ZZZZZZ			21:16																									
ZZZZZZ			21:20																									
ZZZZZZ			21:24																									
ZZZZZZ			21:29																									
ZZZZZZ			21:33																									
ZZZZZZ			21:37																									
ZZZZZZ			21:41																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/14/2017 12:54 End Date: 06/15/2017 04:48

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
CCV 240-283213/127			21:45																									
CCB 240-283213/128			21:50																									
CCV 240-283213/129			21:54																									
CCB 240-283213/130			21:58																									
ZZZZZZ			22:02																									
ZZZZZZ			22:07																									
ZZZZZZ			22:11																									
ZZZZZZ			22:15																									
ZZZZZZ			22:19																									
ZZZZZZ			22:24																									
ZZZZZZ			22:28																									
ZZZZZZ			22:32																									
ZZZZZZ			22:36																									
ZZZZZZ			22:40																									
CCV 240-283213/141			22:45																									
CCB 240-283213/142			22:49																									
ZZZZZZ			22:53																									
ZZZZZZ			22:57																									
ZZZZZZ			23:02																									
ZZZZZZ			23:06																									
ZZZZZZ			23:10																									
ZZZZZZ			23:14																									
ZZZZZZ			23:18																									
ZZZZZZ			23:23																									
CCV 240-283213/151			23:27																									
CCB 240-283213/152			23:31																									
ZZZZZZ			23:35																									
ZZZZZZ			23:40																									
ZZZZZZ			23:44																									
ZZZZZZ			23:49																									
ZZZZZZ			23:53																									
ZZZZZZ			23:57																									
ZZZZZZ			00:01																									
CCV 240-283213/160			00:06																									
CCB 240-283213/161			00:10																									
ZZZZZZ			00:14																									
ZZZZZZ			00:18																									
ZZZZZZ			00:22																									
ZZZZZZ			00:27																									
ZZZZZZ			00:31																									
ZZZZZZ			00:35																									
ZZZZZZ			00:39																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/14/2017 12:54 End Date: 06/15/2017 04:48

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			00:43																									
ZZZZZZ			00:47																									
ZZZZZZ			00:51																									
CCV 240-283213/172			00:56																									
CCB 240-283213/173			01:00																									
ZZZZZZ			01:04																									
ZZZZZZ			01:08																									
CCV 240-283213/176			01:13																									
CCB 240-283213/177			01:17																									
CCVL 240-283213/178			01:21																									
ZZZZZZ			01:25																									
ZZZZZZ			01:29																									
ZZZZZZ			01:34																									
ZZZZZZ			01:38																									
ZZZZZZ			01:42																									
ZZZZZZ			01:46																									
ZZZZZZ			01:51																									
ZZZZZZ			01:55																									
ZZZZZZ			01:59																									
CCV 240-283213/188			02:03																									
CCB 240-283213/189			02:07																									
ZZZZZZ			02:12																									
ZZZZZZ			02:16																									
ZZZZZZ			02:20																									
ZZZZZZ			02:24																									
ZZZZZZ			02:29																									
ZZZZZZ			02:33																									
ZZZZZZ			02:37																									
ZZZZZZ			02:41																									
ZZZZZZ			02:46																									
ZZZZZZ			02:50																									
CCV 240-283213/200			02:54																									
CCB 240-283213/201			02:58																									
ZZZZZZ			03:02																									
ZZZZZZ			03:06																									
ZZZZZZ			03:10																									
ZZZZZZ			03:14																									
ZZZZZZ			03:19																									
ZZZZZZ			03:23																									
ZZZZZZ			03:27																									
ZZZZZZ			03:31																									
ZZZZZZ			03:35																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/14/2017 12:54 End Date: 06/15/2017 04:48

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			03:40																									
CCV 240-283213/212			03:44																									
CCB 240-283213/213			03:48																									
ZZZZZZ			03:52																									
ZZZZZZ			03:57																									
ZZZZZZ			04:01																									
ZZZZZZ			04:05																									
ZZZZZZ			04:09																									
CCV 240-283213/219			04:14																									
CCB 240-283213/220			04:18																									
ZZZZZZ			04:23																									
ZZZZZZ			04:27																									
ZZZZZZ			04:31																									
ZZZZZZ			04:35																									
ZZZZZZ			04:39																									
CCV 240-283213/226			04:44																									
CCB 240-283213/227			04:48																									

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/13/2017 08:51 End Date: 06/13/2017 20:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-282654/1-A			08:51	X																								
IC 240-282654/2-A			08:53	X																								
IC 240-282654/3-A			08:55	X																								
IC 240-282654/4-A			08:57	X																								
IC 240-282654/5-A			08:59	X																								
IC 240-282654/6-A			09:01	X																								
ICV 240-282654/7-A	1		09:05	X																								
ICB 240-282654/8-A	1		09:07	X																								
CRA 240-282654/9-A	1		09:09	X																								
CCV 240-282654/10-A			09:11																									
CCB 240-282654/11-A			09:13																									
CCV 240-282654/10-A			09:15																									
CCB 240-282654/11-A			09:17																									
CCV 240-282654/10-A			16:02																									
CCB 240-282654/11-A			16:04																									
ZZZZZZ			16:06																									
ZZZZZZ			16:08																									
ZZZZZZ			16:10																									
ZZZZZZ			16:12																									
ZZZZZZ			16:14																									
ZZZZZZ			16:17																									
ZZZZZZ			16:19																									
ZZZZZZ			16:21																									
ZZZZZZ			16:24																									
ZZZZZZ			16:26																									
CCV 240-282654/10-A			16:28																									
CCB 240-282654/11-A			16:30																									
ZZZZZZ			16:32																									
ZZZZZZ			16:34																									
ZZZZZZ			16:36																									
ZZZZZZ			16:38																									
ZZZZZZ			16:40																									
ZZZZZZ			16:42																									
ZZZZZZ			16:44																									
ZZZZZZ			16:46																									
ZZZZZZ			16:48																									
ZZZZZZ			16:50																									
CCV 240-282654/10-A	1		16:51	X																								
CCB 240-282654/11-A	1		16:53	X																								
ZZZZZZ			16:56																									
ZZZZZZ			16:58																									
ZZZZZZ			17:00																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/13/2017 08:51 End Date: 06/13/2017 20:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			17:02																									
ZZZZZZ			17:04																									
MB 240-282759/1-A	1	T	17:06	X																								
LCS 240-282759/2-A	1	T	17:08	X																								
ZZZZZZ			17:10																									
240-80672-L-3-E MS	1	D	17:12	X																								
240-80672-L-3-F MSD	1	D	17:14	X																								
CCV 240-282654/10-A	1		17:16	X																								
CCB 240-282654/11-A	1		17:18	X																								
240-80637-1	1	T	17:21	X																								
ZZZZZZ			17:23																									
ZZZZZZ			17:25																									
ZZZZZZ			17:27																									
ZZZZZZ			17:28																									
ZZZZZZ			17:30																									
ZZZZZZ			17:32																									
ZZZZZZ			17:34																									
ZZZZZZ			17:36																									
ZZZZZZ			17:38																									
CCV 240-282654/10-A	1		17:40	X																								
CCB 240-282654/11-A	1		17:42	X																								
ZZZZZZ			17:45																									
ZZZZZZ			17:46																									
ZZZZZZ			17:48																									
ZZZZZZ			17:51																									
ZZZZZZ			17:53																									
ZZZZZZ			17:55																									
ZZZZZZ			17:58																									
ZZZZZZ			18:00																									
ZZZZZZ			18:02																									
ZZZZZZ			18:04																									
CCV 240-282654/10-A			18:06																									
CCB 240-282654/11-A			18:08																									
ZZZZZZ			18:10																									
ZZZZZZ			18:12																									
ZZZZZZ			18:14																									
ZZZZZZ			18:16																									
ZZZZZZ			18:18																									
ZZZZZZ			18:20																									
ZZZZZZ			18:22																									
ZZZZZZ			18:24																									
ZZZZZZ			18:26																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/13/2017 08:51 End Date: 06/13/2017 20:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			18:28																									
CCV 240-282654/10-A			18:30																									
CCB 240-282654/11-A			18:32																									
ZZZZZZ			18:34																									
ZZZZZZ			18:36																									
ZZZZZZ			18:38																									
ZZZZZZ			18:40																									
ZZZZZZ			18:42																									
ZZZZZZ			18:44																									
RINSE 240-283042/94			18:46																									
RINSE 240-283042/95			18:48																									
RINSE 240-283042/96			18:50																									
CCV 240-282654/10-A			18:52																									
CCB 240-282654/11-A			18:54																									
ZZZZZZ			18:56																									
CCV 240-282654/10-A			18:58																									
CCB 240-282654/11-A			19:00																									
ZZZZZZ			19:02																									
ZZZZZZ			19:04																									
ZZZZZZ			19:07																									
ZZZZZZ			19:09																									
ZZZZZZ			19:11																									
ZZZZZZ			19:13																									
ZZZZZZ			19:15																									
ZZZZZZ			19:17																									
ZZZZZZ			19:19																									
ZZZZZZ			19:21																									
CCV 240-282654/10-A			19:23																									
CCB 240-282654/11-A			19:25																									
ZZZZZZ			19:28																									
ZZZZZZ			19:30																									
ZZZZZZ			19:32																									
ZZZZZZ			19:33																									
ZZZZZZ			19:35																									
ZZZZZZ			19:37																									
ZZZZZZ			19:39																									
ZZZZZZ			19:41																									
ZZZZZZ			19:43																									
ZZZZZZ			19:45																									
CCV 240-282654/10-A			19:47																									
CCB 240-282654/11-A			19:49																									
ZZZZZZ			19:52																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/13/2017 08:51 End Date: 06/13/2017 20:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			19:53																									
ZZZZZZ			19:55																									
ZZZZZZ			19:57																									
ZZZZZZ			19:59																									
CCV 240-282654/10-A			20:01																									
CCB 240-282654/11-A			20:03																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/13/2017 End Date: 06/13/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-283009/3 I	09:15	97		101		101		98		100	
STD2 240-283009/4 I	09:19	98		100		100		95		97	
STD3 240-283009/5 I	09:23	99		102		106		94		96	
STD4 240-283009/6 I	09:27	99		106		104		105		104	
ICV 240-283009/7	09:32	100		104		106		101		101	
ICB 240-283009/8	09:36	104		108		107		107		105	
ICVL 240-283009/9	09:40	103		107		107		106		106	
ICSA 240-283009/10	09:44	91		94		94		90		92	
ICSAB 240-283009/11	09:48	87		94		94		91		92	
CCV 240-283009/38	12:35	91		100		102		97		99	
CCB 240-283009/39	12:39	94		103		104		104		103	
MB 240-282755/1-A	13:09	88		99		102		101		98	
LCS 240-282755/2-A	13:13	80		94		97		95		92	
240-80672-L-3-A SD	13:22	89		103		106		105		102	
CCV 240-283009/50	13:26	92		101		104		99		99	
CCB 240-283009/51	13:30	94		103		105		105		103	
240-80672-L-3-B MS	13:38	78		96		99		97		94	
240-80672-L-3-C MSD	13:42	79		96		99		96		95	
240-80637-1	13:46	77		94		99		93		90	
CCV 240-283009/62	14:15	87		97		100		96		96	
CCB 240-283009/63	14:20	89		98		101		102		99	
CCVL 240-283009/136	19:39	68		90		94		98		95	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/13/2017 End Date: 06/13/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-283009/3 I	09:15	100		99		99					
STD2 240-283009/4 I	09:19	98		96		96					
STD3 240-283009/5 I	09:23	97		97		93					
STD4 240-283009/6 I	09:27	103		103		104					
ICV 240-283009/7	09:32	102		100		99					
ICB 240-283009/8	09:36	105		103		104					
ICVL 240-283009/9	09:40	105		102		105					
ICSA 240-283009/10	09:44	93		92		92					
ICSAB 240-283009/11	09:48	93		91		94					
CCV 240-283009/38	12:35	100		99		98					
CCB 240-283009/39	12:39	104		103		104					
MB 240-282755/1-A	13:09	102		102		115					
LCS 240-282755/2-A	13:13	99		98		104					
240-80672-L-3-A SD	13:22	106		106		110					
CCV 240-283009/50	13:26	102		102		100					
CCB 240-283009/51	13:30	105		103		105					
240-80672-L-3-B MS	13:38	102		101		103					
240-80672-L-3-C MSD	13:42	101		102		102					
240-80637-1	13:46	99		99		96					
CCV 240-283009/62	14:15	99		98		97					
CCB 240-283009/63	14:20	100		100		102					
CCVL 240-283009/136	19:39	98		98		97					

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15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/14/2017 End Date: 06/14/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-283213/3 I	13:02	92		97		93		95		98	
STD2 240-283213/4 I	13:07	90		91		90		87		90	
STD3 240-283213/5 I	13:11	93		91		92		85		87	
STD4 240-283213/6 I	13:15	90		93		90		94		95	
ICV 240-283213/7	13:19	92		91		90		89		91	
ICB 240-283213/8	13:23	99		96		97		96		98	
ICVL 240-283213/9	13:28	97		97		97		98		100	
ICSA 240-283213/10	13:32	80		82		79		79		82	
ICSAB 240-283213/11	13:36	76		79		77		76		80	
CCV 240-283213/40	15:40	79		91		85		92		93	
CCB 240-283213/41	15:44	85		93		90		97		98	
MB 240-282755/1-A	16:01	75		88		81		93		94	
LCS 240-282755/2-A	16:05	64		77		69		81		80	
240-80637-1	16:09	60		74		67		76		75	
CCV 240-283213/48	16:14	80		91		86		92		94	
CCB 240-283213/49	16:18	87		94		91		99		99	
CCVL 240-283213/82	18:36	79		90		88		96		99	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/14/2017 End Date: 06/14/2017

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-283213/3 I	13:02	98		98		98					
STD2 240-283213/4 I	13:07	94		95		92					
STD3 240-283213/5 I	13:11	93		94		89					
STD4 240-283213/6 I	13:15	96		97		97					
ICV 240-283213/7	13:19	94		96		93					
ICB 240-283213/8	13:23	99		99		100					
ICVL 240-283213/9	13:28	100		100		100					
ICSA 240-283213/10	13:32	85		86		86					
ICSAB 240-283213/11	13:36	83		84		84					
CCV 240-283213/40	15:40	101		102		99					
CCB 240-283213/41	15:44	104		104		106					
MB 240-282755/1-A	16:01	100		101		108					
LCS 240-282755/2-A	16:05	90		92		94					
240-80637-1	16:09	88		89		87					
CCV 240-283213/48	16:14	100		103		99					
CCB 240-283213/49	16:18	103		105		105					
CCVL 240-283213/82	18:36	102		104		104					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Batch Number: 282755 Batch Start Date: 06/12/17 15:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3005A Batch End Date: 06/12/17 23:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00030	MTICPMSA 00031	MTICPMSB 00031	MTTMHCL 00158
MB 240-282755/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-282755/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-80672-L-3 MS		3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-80672-L-3 MSD		3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-80637-F-1	MRC-MW16A-060717	3005A, 6020A	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00120					
MB 240-282755/1		3005A, 6020A		1 mL					
LCS 240-282755/2		3005A, 6020A		1 mL					
240-80672-L-3 MS		3005A, 6020A	D	1 mL					
240-80672-L-3 MSD		3005A, 6020A	D	1 mL					
240-80637-F-1	MRC-MW16A-060717	3005A, 6020A	R	1 mL					

Batch Notes	
Filter Paper ID	9814481
Hot Block ID	HB3
Pipette ID	MP3
Digestion Tube/Cup ID	1612138

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Batch Number: 282654 Batch Start Date: 06/12/17 09:30 Batch Analyst: Nguyen, Diem

Batch Method: 7470A Batch End Date: 06/12/17 11:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00064	MTH2S04 00044	MTHGCALW 01528	MTHgICV_00001 00184
ICV 240-282654/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-282654/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-282654/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-282654/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-282654/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00133	MTTMHNO3 00120				
ICV 240-282654/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-282654/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-282654/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-282654/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-282654/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Hot Block ID	C1
Pipette ID	A6, MP1, A1, MP5
Digestion Tube/Cup ID	1612138

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-80637-1

SDG No.:

Batch Number: 282759 Batch Start Date: 06/12/17 15:00 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 06/12/17 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00064	MTH2S04 00044	MTHGCALW 01528	MTKMN04W 00133
MB 240-282759/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-282759/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-80672-L-3 MS		7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-80672-L-3 MSD		7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-80637-F-1	MRC-MW16A-060717	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00120					
MB 240-282759/1		7470A, 7470A		1.25 mL					
LCS 240-282759/2		7470A, 7470A		1.25 mL					
240-80672-L-3 MS		7470A, 7470A	D	1.25 mL					
240-80672-L-3 MSD		7470A, 7470A	D	1.25 mL					
240-80637-F-1	MRC-MW16A-060717	7470A, 7470A	T	1.25 mL					

Batch Notes	
Batch Comment	take out temps within range
Hot Block ID	C1
Pipette ID	MP2-MP3
Digestion Tube/Cup ID	1612138

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **APRIL 28, 2017**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
MRC GW – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) TMM-076

SAMPLES: 3 / Groundwater

MRC-SEMW-71-032717 MRC-SEMW-8I-032717 MRC-SEMW-8S-032717

OVERVIEW

The sample set for MRC GW, SDG TMM-076, consists of three (3) groundwater environmental samples. Samples were analyzed for hexavalent chromium. No field duplicate pairs are included in this SDG. The samples were collected by Tetra Tech on March 27, 2017 and analyzed by ALS Environmental. Analyses were conducted in accordance with EPA Method 218.6 analysis and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blanks, laboratory control sample results, analyte identification, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- One detected result below the reporting limit (RL) but above the method detection limit (MDL) was qualified as estimated (J).

NOTES

Non-detected results were originally reported to the RL in the database. The non-detected results were changed to the MDL in the database by the data validator.

The laboratory data package and the database originally listed sample MRC-SEMW-7I-032717 as MRC-SEMW71-032717. The sample identifier was changed to MRC-SEMW-7I-032717 in the database and on the Form I report by the data validator to match the chain of custody form.

EXECUTIVE SUMMARY

Laboratory Performance Issues: None.

Other Factors Affecting Data Quality: One detected result below RL but above the MDL was qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Leigh A. Ciofani

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 07776	NSAMPLE	MRC-SEMW-7I-032717			MRC-SEMW-8I-032717			MRC-SEMW-8S-032717		
SDG: TMM-076	LAB_ID	2217836001			2217836003			2217836002		
FRACTION: MISC	SAMP_DATE	3/27/2017			3/27/2017			3/27/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.088	J	P	0.047	U		0.047	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2217836 TMM076|MRC Ground Water

Lab ID: **2217836001** MRC-SEMW-7I-032717 L.C. 04/28/17 Date Collected: 3/27/2017 12:00 Matrix: Water

Sample ID: ~~**MRC-SEMW-71-032717**~~ Date Received: 3/27/2017 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	0.088J	J	ug/L	0.25	0.047	EPA 218.6		3/28/17 02:51	MBW	A

Debra J Musser

Ms. Debra J. Musser
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2217836 TMM076|MRC Ground Water

Lab ID: **2217836003** Date Collected: 3/27/2017 14:25 Matrix: Water

Sample ID: **MRC-SEMW-8I-032717** Date Received: 3/27/2017 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		3/28/17 03:06	MBW	A

Debra J Musser

Ms. Debra J. Musser
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2217836 TMM076|MRC Ground Water

Lab ID: **2217836002** Date Collected: 3/27/2017 13:15 Matrix: Water

Sample ID: **MRC-SEMW-8S-032717** Date Received: 3/27/2017 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY											
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6			3/28/17 02:58	MBW	A

Debra J Musser

Ms. Debra J. Musser
Project Coordinator

APPENDIX C

SUPPORT DOCUMENTATION

ALS Environmental

34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ www.alsglobal.com
NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 , DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

April 03, 2017

Work Order: 2217836
SDG: TMM076

Ms. Amy Thomson
Tetra Tech, Inc.
Foster Plaza 7
661 Andersen Drive
Pittsburgh, PA 15220

Laboratory Results for: Hexavalent Chromium

Dear Ms. Amy Thomson:

Enclosed are the analytical results for samples received by the laboratory starting on March 27, 2017.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP. Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads. This laboratory report may not be reproduced, except infull, without the written approval of ALS Environmental. Any events, such as QC failures, are explained in the report narrative.

If you have any questions regarding this certificate of analysis, please contact Ms. Jennifer M Stanhope Lamoreux (Reporting Manager) at (717) 944-5541. You may also contact me via email at jennifer.lamoreux@ALSglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Jennifer M Stanhope Lamoreux
Reporting Manager

Tetra Tech, Inc.

ALS-Middletown

Case Narrative

TMM-076

Sample Management

This report contains the results of the analysis of three (3) water samples collected on March 27, 2017. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on March 27, 2017. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Three (3) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were filtered, preserved, and analyzed within the 24-hour holding period established by the client for the method.

Calibration. A calibration was properly established. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit in the blanks.

Laboratory Control Samples. Laboratory control samples, identified as 2508304 and 2508306, were analyzed initially and every 20 samples. The recoveries were within the QC limits.

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

March 29, 2017

Ms. Amy Thomson
Tetra Tech, Inc.
Foster Plaza 7
661 Andersen Drive
Pittsburgh, PA 15220

Certificate of Analysis

Project Name:	**Hexavalent Chromium**	Workorder:	**2217836**
Purchase Order:	**1104369**	Workorder ID:	**TMM076|MRC Ground Water**

Dear Ms. Thomson:

Enclosed are the analytical results for samples received by the laboratory on Monday, March 27, 2017.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Debra J. Musser (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Fred Kolberg , Ms. Samantha Brenner , Mr. Tony Apanavage

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Debra J Musser

Ms. Debra J. Musser
Project Coordinator

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2217836 TMM076|MRC Ground Water

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2217836001	MRC-SEMW-71-032717	Water	3/27/2017 12:00	3/27/2017 21:00	Collected by Client
2217836002	MRC-SEMW-8S-032717	Water	3/27/2017 13:15	3/27/2017 21:00	Collected by Client
2217836003	MRC-SEMW-8I-032717	Water	3/27/2017 14:25	3/27/2017 21:00	Collected by Client

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2217836 TMM076|MRC Ground Water

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

Rochester

1565 Jefferson Road, Building 300, Suite 360
Rochester, NY 14623
Phone: +1 585 288 5380 Fax: +1 585 288 8475

Chain of Custody Record

2217836

Client Contact	Project Manager: Michael Martin	Site Contact: Stu Cameron	Date: 3/27/2017	COC No:
Tetra Tech	Tel/Fax: 410-707-5259 (cell)	Lab Contact:	Carrier: Fedex	1 of 1 COCs
20251 Century Blvd, Suite 200	Analysis Turnaround Time			Job No. 112IC07776-13
Germantown, MD 20874	Calendar (C) or Work Days (W) ____			
(301) 528-3002 Phone	TAT if different from Below: 3 DAYS			SDG No.
(301) 528-3000 FAX	☐ 2 weeks			
Project Name: MRC Ground Water Sampling	☐ 1 week			Sampler: S. Cameron
Site: Middle River Complex, Maryland	☐ 2 days			
P O #	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Dissolved Hexavalent Chromium
MRC-SEMW-7I-032717	3/27/2017	1200	GW	Water	1		x
MRC-SEMW-8S-032717	3/27/2017	1315	GW	Water	1		x
MRC-SEMW-8I-032717	3/27/2017	1425	GW	Water	1		x

	Y	N	Initials
Custody Seals Present?		☒	
(if present) Seals Intact?			
Received on Ice?	☒		
COC/Lbls Complete	☒		
Cont in Good Cond?	☒		
Correct Containers?	☒		
Correct Samp Vol?	☒		
Correct Preservation?	☒		
Headspace/Volatiles?			
Tracking #:			

Cooler Temp: 10C °C
Cooler #:
Therm ID: 318
Ship Carrier:
FedEx UPS
DHL

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____ 1

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments: **Samples must be analyzed within 24 hours of sample time.**

	Company:	Date/Time:		Company:	Date/Time:
Relinquished by:	Tetra Tech	3-27-17 1500	Received by:	ALS	3/27/17 1522
Relinquished by:	ALS	3/27/17	Received by:	ALS	3/27 1730
Relinquished by:	ALS	3/27 2100	Received by:	ALS	3/27 2100

Hexavalent Chromium by Method 218.6 Summary Forms

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TMM076

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2508303	Hexavalent Chromium	MB	QC-Water	03/28/2017 01:40	0.25	U	ug/L
2508310	Hexavalent Chromium	MB	QC-Water	03/28/2017 03:30	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B

Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TMM076

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2508305	Hexavalent Chromium	CCVL	03/28/2017 01:55	5	4.9	97.1		90 - 110
2508309	Hexavalent Chromium	CCVH	03/28/2017 03:22	20	20.3	101		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Form 8B

Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TMM076

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2508304	Hexavalent Chromium	MRL	03/28/2017 01:47	0.25	0.27	108		50 - 150
2508306	Hexavalent Chromium	LCS	03/28/2017 02:03	10	10.1	101		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

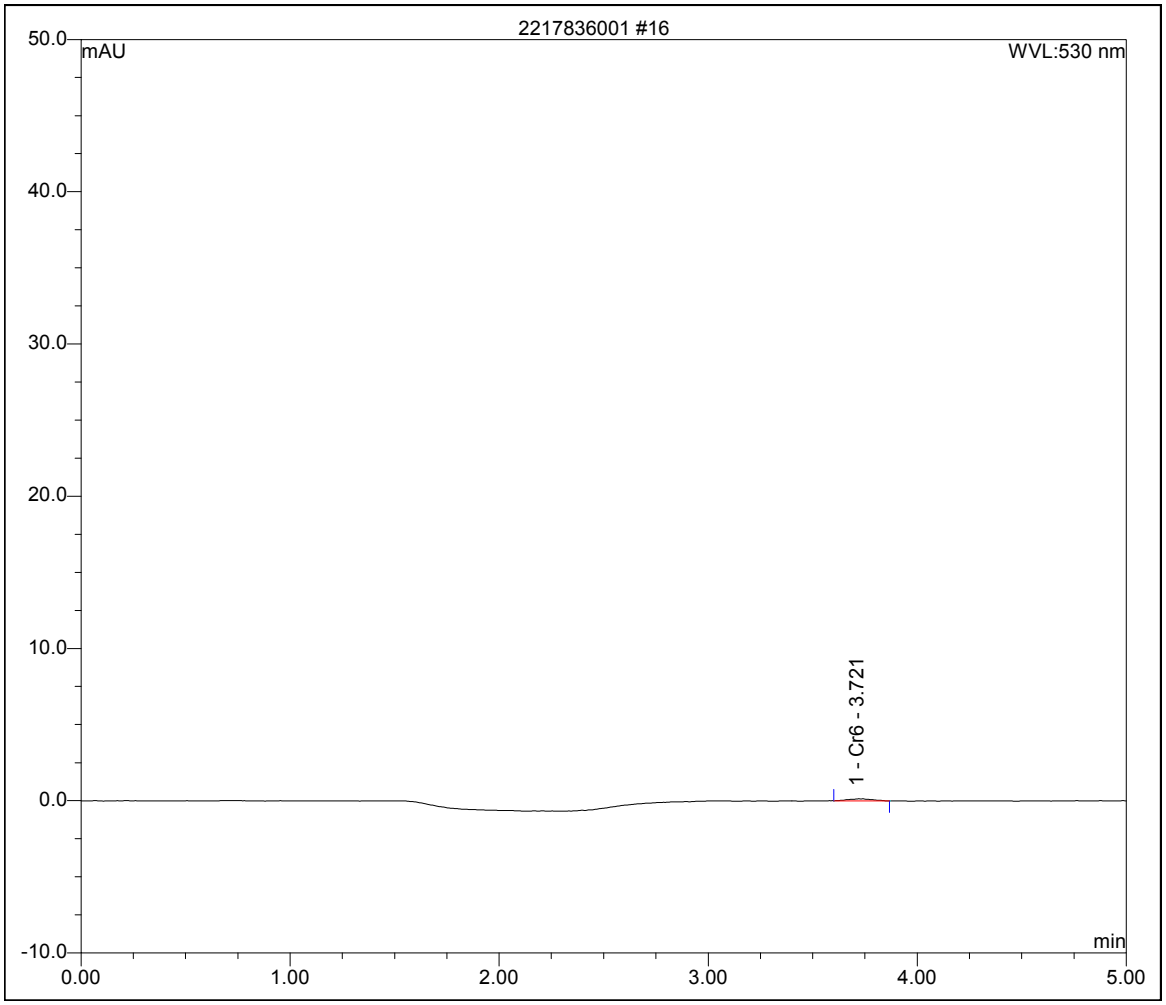
Sample Calculation - MRC-SEMW-7I-032717

Result = 0.088 ug/L

Peak Integration Report

Sample Name:	**2217836001**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**03/28/17 02:51**	*Batch:*	**184905**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**032817**	*InitialCal:*	**032817**
Sequence2:		*Method:*	**218_6_032817**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	3.72	Cr6	0.018	0.133	0.09
		TOTAL:	0.02	0.13	0.09



TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 12, 2017**

FROM: **J.SAMCHUCK** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
MRC GROUNDWATER GW – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) TMM-077

SAMPLES: 5 / Groundwater

MRC-DUP06-040517 MRC-MW07A-040517 MRC-MW17A-040517
MRC-MW18A-040517 MRC-MW64A-040517

OVERVIEW

The sample set for MRC GW, SDG TMM-077, consists of five (5) groundwater environmental samples. Samples were analyzed for hexavalent chromium. One field duplicate pair (MRC-MW64A-040517/MRC-DUP06-040517) is included in this SDG.

The samples were collected by Tetra Tech on April 5, 2017 and analyzed by ALS Environmental. Analyses were conducted in accordance with EPA Method 218.6 analysis and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blanks, laboratory control sample results, analyte identification, analyte quantitation, field duplicate precision, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- All samples were analyzed approximately 3 days after collection. Nondetected results were qualified as estimated (UJ).

NOTES

The laboratory data package and the database originally listed sample MRC-MW64A-040517 as MRC-MW6A-040517. The sample ID was changed to MRC-MW64A-040517 in the database and on the Form I report by the data validator to match the chain of custody form.

Samples were adjusted to pH 9-9.5 and were filtered by the laboratory.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Holding time from collection to analysis was exceeded by approximately 3 days.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

PROJ_NO: 07776	NSAMPLE	MRC-DUP06-040517			MRC-MW07A-040517			MRC-MW17A-040517			MRC-MW18A-040517		
SDG: TMM-077	LAB_ID	2220337005			2220337004			2220337001			2220337003		
FRACTION: MISC	SAMP_DATE	4/5/2017			4/5/2017			4/5/2017			4/5/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0 MW64A			0.0			0.0			0.0		
	DUP_OF	MRC-~~MW07A-~~040517											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	UJ	H	0.047	UJ	H	0.047	UJ	H	0.047	UJ	H

7/12/17
JAS

MW64A

PROJ_NO: 07776	NSAMPLE	MRC-~~MW6A-~~040517		
SDG: TMM-077	LAB_ID	2220337002		
FRACTION: MISC	SAMP_DATE	4/5/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	UJ	H

7/12/17
JAS

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2220337 TMM077|MRC 2017 GW

Lab ID: **2220337001** Date Collected: 4/5/2017 11:06 Matrix: Water

Sample ID: **MRC-MW17A-040517** Date Received: 4/5/2017 21:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		4/8/17 05:47	MBW	A

Debra J Musser

Ms. Debra J. Musser
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2220337 TMM077|MRC 2017 GW

Lab ID: **2220337002** MW64A
Sample ID: **MRC-~~MW6A~~-040517**

Date Collected: 4/5/2017 12:18
Date Received: 4/5/2017 21:20

Matrix: Water

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		4/8/17 05:55	MBW	A

Debra J Musser

Ms. Debra J. Musser
Project Coordinator

7/12/17
JAS

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2220337 TMM077|MRC 2017 GW

Lab ID: **2220337003** Date Collected: 4/5/2017 14:02 Matrix: Water

Sample ID: **MRC-MW18A-040517** Date Received: 4/5/2017 21:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		4/8/17 06:03	MBW	A

Debra J Musser

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ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2220337 TMM077|MRC 2017 GW

Lab ID: **2220337004** Date Collected: 4/5/2017 15:11 Matrix: Water

Sample ID: **MRC-MW07A-040517** Date Received: 4/5/2017 21:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		4/8/17 07:15	MBW	A

Debra J Musser

Ms. Debra J. Musser
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2220337 TMM077|MRC 2017 GW

Lab ID: **2220337005** Date Collected: 4/5/2017 00:00 Matrix: Water

Sample ID: **MRC-DUP06-040517** Date Received: 4/5/2017 21:20

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		4/8/17 06:18	MBW	A

Debra J Musser

Ms. Debra J. Musser
Project Coordinator

APPENDIX C

SUPPORT DOCUMENTATION

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2220337 TMM077|MRC 2017 GW

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2220337001	MRC-MW17A-040517	Water	4/5/2017 11:06	4/5/2017 21:20	Collected by Client
2220337002	MRC-MW6A-040517	Water	4/5/2017 12:18	4/5/2017 21:20	Collected by Client
2220337003	MRC-MW18A-040517	Water	4/5/2017 14:02	4/5/2017 21:20	Collected by Client
2220337004	MRC-MW07A-040517	Water	4/5/2017 15:11	4/5/2017 21:20	Collected by Client
2220337005	MRC-DUP06-040517	Water	4/5/2017 00:00	4/5/2017 21:20	Collected by Client

Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TMM-077

Sample Management

This report contains the results of the analysis of five (5) water samples collected on April 5, 2017. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on April 5, 2017. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Five (5) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were filtered and preserved. However, the samples were not analyzed within the 24-hour holding period established by the client for the method.

Calibration. A calibration was properly established. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit in the blanks.

Laboratory Control Samples. Laboratory control samples, identified as 2515390 and 2515392, were analyzed initially and every 20 samples. The recoveries were within the QC limits.

I Jennifer M. Lamoreux, as the designated Quality Assurance Officer, hereby attest that all electronic deliverables have been thoroughly reviewed and are in agreement with the associated hardcopy data. The enclosed electronic files have been reviewed for accuracy (including significant figures), completeness and format. The laboratory will be responsible for any labor time necessary to correct enclosed electronic deliverables that have been found to be in error. I can be reached at (717) 944-5541 if there are any questions or problems with the enclosed electronic deliverables.

Signature:  Title: Reporting Manager Date: 4/26/2017

Container Number	pH Received	Adjustment Amount Needed	Final pH	Preservation Lot Number	Residual Chlorine (+ or -)	Date	Time	Initials	pH Recheck Date/Time /Recheck
2220337001-A	<9	Wet Chem Fix						jls	
2220337002-A	<9	Wet Chem Fix						jls	
2220337003-A	<9	Wet Chem Fix						jls	
2220337004-A	<9	Wet Chem Fix						jls	
2220337005-A	<9	Wet Chem Fix						jls	

~~TestAmerica Canton~~ ALS
~~4101 Shuffel Street NW~~
North Canton, OH 44720
Phone: ~~(330) 497-9396 Fax: (330) 497-0772~~

Chain of Custody Record

22203?

* 2220337 *

Client Information	Sampler: Walt Pryor	Lab PM: ~~Info Feddon, John~~	Carrier Tracking No(s):	240-41091-17888.2
Client Contact: Mr. Stuart Cameron	Phone: 301 891-3914	E-Mail: ~~john.reifeddon@testamericainc.com~~		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested		Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
City: Germantown	TAT Requested (days): 24 hr TAT			
State, Zip: MD, 20874				
Phone: 301 528-3022	PO #: 1093454			Other:
Email: Stuart.Cameron@TetraTech.com	WO #: 112IC07776			
Project Name: MRC 2017 GW	Project #: 24015639			
Site: ~~Base AFB~~ MRC	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwater, Ssolid, Owastoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL, 8260B_114.3 - Volatile Analytes	Hexchrom (218.6)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A			
MRC-MW17A-040517	4/5/17	1106	G	Water				1		
MRC-MW64A-040517		1218		Water				1		
MRC-MW18A-040517		1402						1		
MRC-MW07A-040517		1511						1		
MRC-DUP06-040517		0000						1		

Custody Seals Present? Y N Initials: dv
(if present) Seals Intact?
Received on Ice?
COC/Lbls Complete
Cont in Good Cond?
Correct Containers?
Correct Samp Vol?
Correct Preservation?
Headspace/Volatiles?
Tracking #:

Cooler Temp: 1 °C
Cooler #:
Thermometer: 318
Ship Carrier:
FedEx UPS
DHL

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Walt Pryor	Date/Time: 4/5/17 1630	Company: TTINC	Received by: ALS	Date/Time: 4/5/17 1630	Company: ALS
Relinquished by: ALS	Date/Time: 4/5/17	Company: ALS	Received by: #K	Date/Time: 4/5/17 17 00	Company: ALS
Relinquished by: #K	Date/Time: 4/5 2120	Company:	Received by:	Date/Time: 4/5 2120	Company: TTW

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TMM077

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2515389	Hexavalent Chromium	MB	QC-Water	04/08/2017 04:36	0.25	U	ug/L
2515396	Hexavalent Chromium	MB	QC-Water	04/08/2017 07:07	0.25	U	ug/L
2515400	Hexavalent Chromium	MB	QC-Water	04/08/2017 07:46	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TMM077

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2515391	Hexavalent Chromium	CCVL	04/08/2017 04:52	5	5.0	99.1		90 - 110
2515395	Hexavalent Chromium	CCVH	04/08/2017 06:42	20	20.3	101		90 - 110
2515399	Hexavalent Chromium	CCVL	04/08/2017 07:39	5	5.0	101		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TMM077

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2515390	Hexavalent Chromium	MRL	04/08/2017 04:44	0.25	0.26	104		50 - 150
2515392	Hexavalent Chromium	LCS	04/08/2017 05:00	10	10.1	101		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

TETRA TECH ISG
TtNUS, Information Systems Group

Completion Ticket

On 4/17/2017 at 6:45 AM the following files were submitted to Tetra Tech by charles.blair@alsglobal.com with

2220337-A1.txt, 2220337-A3.txt

If you need to identify this session at a later date refer to Ticket Key:

2017417_4674784645_ledd_ALSI

You may print this page by clicking on the "Print This Page" button

Thank you for using the Data Checker, to upload more files click the "Upload/Check Files" link on navigation me

Print this Page | Back To Upload

Cr+6 218.6 pH Filtration Prep

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
2220337001	Cr+6 Buffer	X	Y
2220337002	Cr+6 Buffer	X	Y
2220337003	Cr+6 Buffer	X	Y
2220337004	Cr+6 Buffer	X	Y
2220337005	Cr+6 Buffer	X	Y

Date:	4.6.2017
Tech:	MBW

Queue:	WETC
Batch:	185523

Reagent:	
Cr+6 Buffer:	WR170328003

Reviewed by:	
Reviewed date:	4/20/17

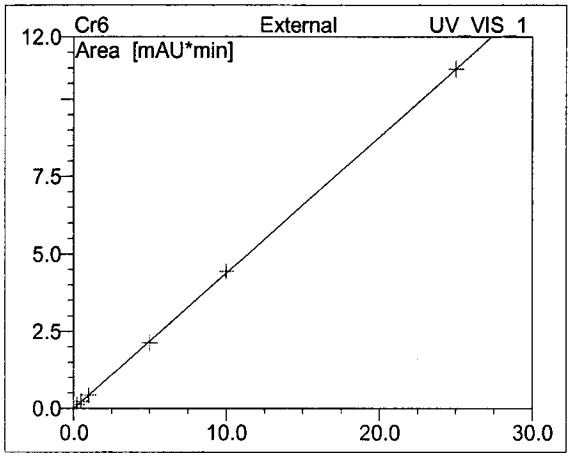
Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Adjusted with "None" indicates sample was received at laboratory already within required pH range.

ANION SUMMARY REPORT

No.	Name	Time	*Analyst	lutionFac	*Batch	*Instrument	Amount Cr6 UV_VIS_1
7	2515389	04/08/17 04:36	MBW	1	185523	IC-4	n.a.
8	2515390	04/08/17 04:44	MBW	1	185523	IC-4	0.261
9	2515391	04/08/17 04:52	MBW	1	185523	IC-4	4.953
10	2515392	04/08/17 05:00	MBW	1	185523	IC-4	10.107
11	2220053001	04/08/17 05:07	MBW	1	185523	IC-4	n.a.
12	2515393	04/08/17 05:15	MBW	1	185523	IC-4	4.996
13	2515394	04/08/17 05:23	MBW	1	185523	IC-4	5.043
14	2220054001	04/08/17 05:31	MBW	1	185523	IC-4	0.310
15	2220103001	04/08/17 05:39	MBW	1	185523	IC-4	n.a.
16	2220337001	04/08/17 05:47	MBW	1	185523	IC-4	n.a.
17	2220337002	04/08/17 05:55	MBW	1	185523	IC-4	n.a.
18	2220337003	04/08/17 06:03	MBW	1	185523	IC-4	n.a.
19	2220337005	04/08/17 06:18	MBW	1	185523	IC-4	n.a.
20	2220534001	04/08/17 06:26	MBW	1	185523	IC-4	0.222
21	2220992001	04/08/17 06:34	MBW	1	185523	IC-4	0.053
22	2515395	04/08/17 06:42	MBW	1	185523	IC-4	20.262
23	2515396	04/08/17 07:07	MBW	1	185523	IC-4	n.a.
24	2220337004	04/08/17 07:15	MBW	1	185523	IC-4	n.a.
25	2220993001	04/08/17 06:58	MBW	1	185523	IC-4	n.a.
26	2515397	04/08/17 07:23	MBW	1	185523	IC-4	4.870
27	2515398	04/08/17 07:31	MBW	1	185523	IC-4	4.969
28	2515399	04/08/17 07:39	MBW	1	185523	IC-4	5.027
29	2515400	04/08/17 07:46	MBW	1	185523	IC-4	n.a.
30	SHUTDOWN	04/08/17 07:54	MBW		185523	IC-4	n.a.

Calibration Batch Report

Sequence:	**4-040817**	Instrument:	**IC-4**
Instrument Method:	**cr+6**	InitialCal:	**040817**
Ini. Date/Time:	**04/08/17 04:44**	Method:	**218_6_040817**

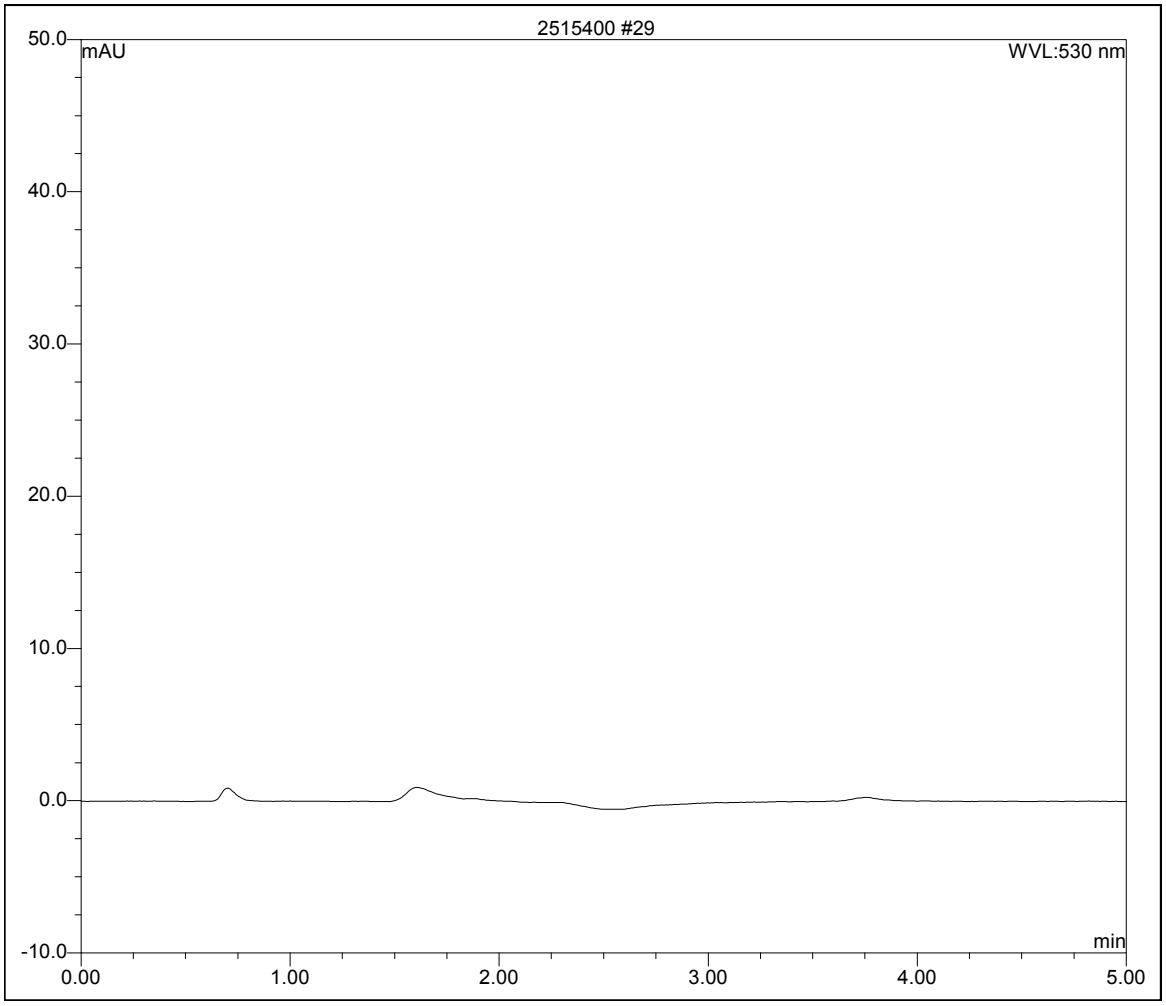


No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	3.73	Cr6	0QOff	6	-0.007	0.440	0.000	99.9934
AVERAGE:					-0.0073	0.4401	0.0000	99.9934

Peak Integration Report

Sample Name:	**2515400**	*Dilution:*	**1**
Sample Type:	**MB**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**04/08/17 07:46**	*Batch:*	**185523**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**040817**	*InitialCal:*	**040817**
Sequence2:		*Method:*	**218_6_040817**

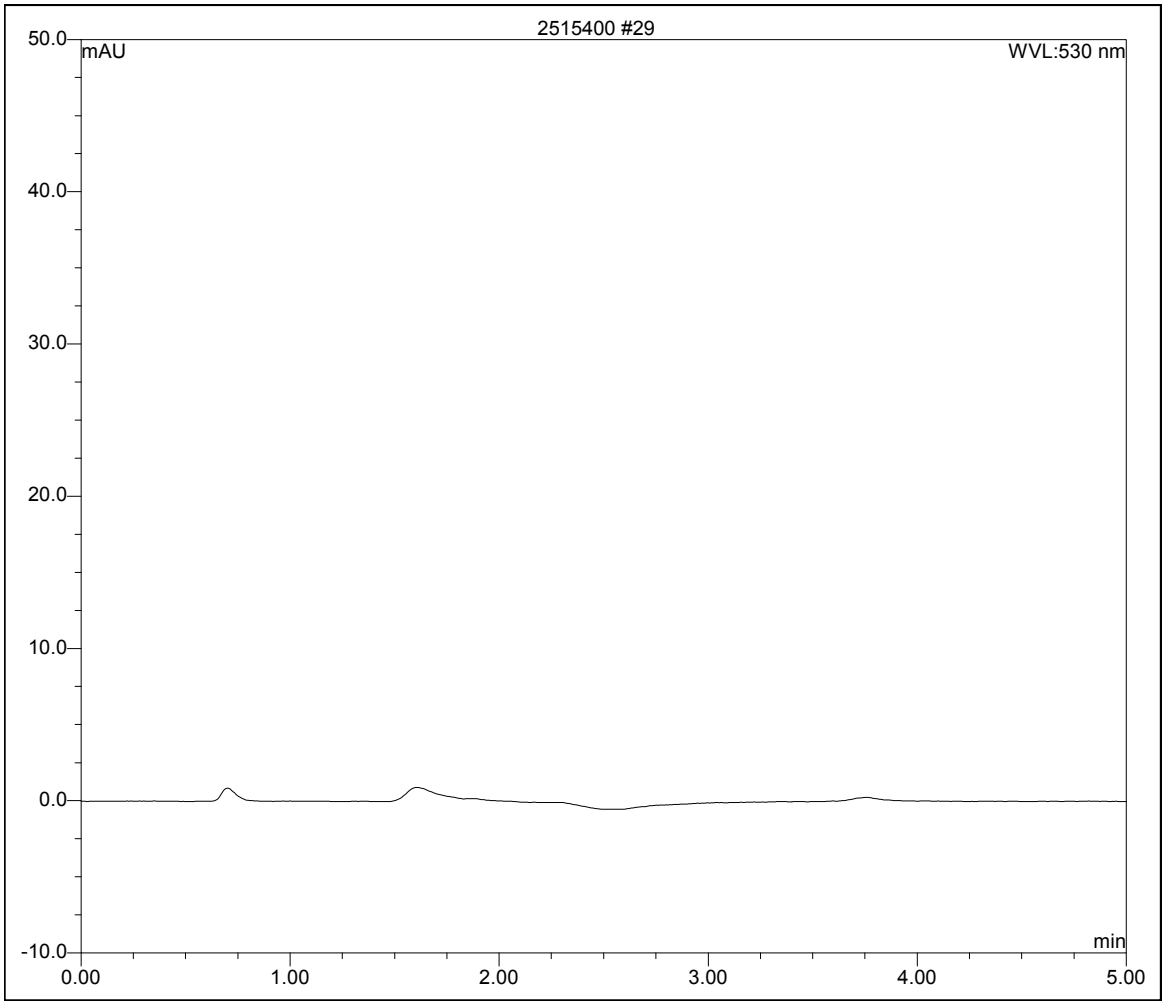
No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
n.a.	n.a.	Cr6	n.a.	n.a.	n.a.
		TOTAL:	0.00	0.00	0.00



Peak Integration Report

Sample Name:	**2515400**	*Dilution:*	**1**
Sample Type:	**MB**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**04/08/17 07:46**	*Batch:*	**185523**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**040817**	*InitialCal:*	**040817**
Sequence2:		*Method:*	**218_6_040817**

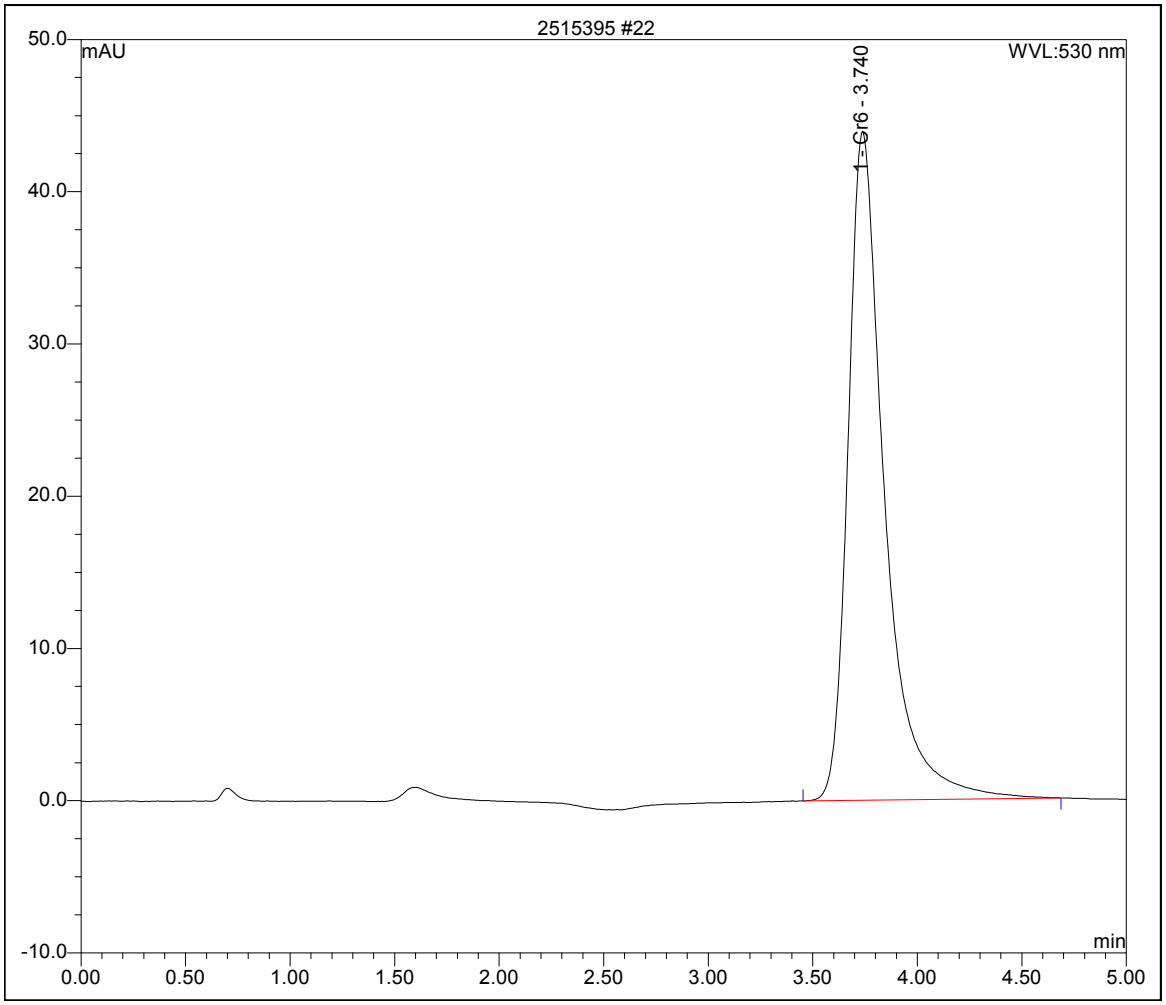
No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
n.a.	n.a.	Cr6	n.a.	n.a.	n.a.
		TOTAL:	0.00	0.00	0.00



Peak Integration Report

Sample Name:	**2515395**	*Dilution:*	**1**
Sample Type:	**CCVH**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**04/08/17 06:42**	*Batch:*	**185523**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**040817**	*InitialCal:*	**040817**
Sequence2:		*Method:*	**218_6_040817**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	3.74	Cr6	8.895	43.942	20.26
		TOTAL:	8.90	43.94	20.26



TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 18, 2017**

FROM: **J.SAMCHUCK** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
MRC GROUNDWATER GW – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) TMM-084

SAMPLES: 1 / Groundwater

MRC-MW16A-060717

OVERVIEW

The sample set for MRC GW, SDG TMM-084, consists of one (1) groundwater environmental sample. The sample was analyzed for hexavalent chromium.

The sample was collected by Tetra Tech on June 7, 2017 and analyzed by ALS Environmental. Analyses were conducted in accordance with EPA Method 218.6 analysis and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, initial/continuing calibrations, laboratory method blanks, laboratory control sample results, analyte identification, analyte quantitation, and detection limits. Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- The holding time until analysis was exceeded for sample MRC-MW16A-060717. The sample was analyzed within 48 hours of collection. The nondetected result was qualified as estimated, (UJ).

NOTES

The sample was field filtered and was preserved to a pH of 9-9.5 by the laboratory.

EXECUTIVE SUMMARY

Laboratory Performance Issues: The holding time from collection to analysis was exceeded for hexavalent chromium.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the USEPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

PROJ_NO: 08118	NSAMPLE	MRC-MW16A-060717		
SDG: TMM-084	LAB_ID	2236642004		
FRACTION: MISC	SAMP_DATE	6/7/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	UJ	H

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2236642 TMM084|Martin State Airport

Lab ID: **2236642004** Date Collected: 6/7/2017 15:44 Matrix: Water

Sample ID: **MRC-MW16A-060717** Date Received: 6/7/2017 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/17 07:55	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

APPENDIX C

SUPPORT DOCUMENTATION

Friday, June 09, 2017 11:09:05 PM
Page 8 of 8

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier: Fed Ex
Tracking #:

* 2 2 3 6 6 4 2 *

Co. Name: TEtra Tech Inc.
Contact (Report to): Mike Martin
Phone: 301 528-3022
Address: 20251 Century Blvd. Germantown, MD 20874

Bill to (if different than Report to):
PO#: 112IC08118

Project Name/#: Martin State Airport
ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? -Y
Fax? -Y No.:

***Container Type	P														
***Container Size	125														
*** Preservative	Amm														

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Hex Chrome 218.6									
1	MW-51S-060712	Field Filtered	6/7/17	1017	G	AQ	1									
2	MW-51I-060717	↓	↓	1140	↓	↓	1									
3	MW-51D-060717	↓	↓	1259	↓	↓	1									
4	MRC-MW16A-060717	↓ 112IC07776		1544	↓	↓	1									
5																
6																
7																
8																

Enter Number of Containers Per Analysis

Receipt Information (completed by Sample Receiving)
Performed by: [signature]
Cooler Temp: 1.C
Therm. ID: 221
No. of Coolers:
Notes:

Sample	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
1	Y	Y	Y	Y	
2	N	N	N	N	N
3	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y

Sample	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
1	Y	Y	Y	Y	Y
2	N	N	N	N	N
3	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Walt Payne

Project Comments:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Walt Payne	6/7/17	1600	2	[signature]	6/7	1600
3	[signature]	6/7	1830	4	[signature]		
5	[signature]		2140	6	[signature]	6/7	2140
7				8			
9				10			

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ ____ new
EDD Required? ☐ If yes, format type:
SDWA Forms? yes ☐ yes ☐ yes ☐ yes ☐
State Samples Collected In? MD ☐ NJ ☐ NY ☐ PA ☐ Other
Enter PWSID No.
DOD Criteria Required?

ALS FIELD SERVICES: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 01-2013

Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TMM-084

Sample Management

This report contains the results of the analysis of four (4) water samples collected on June 7, 2017. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on June 7, 2017. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Four (4) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were filtered within the 24-hour holding period. However, samples were not analyzed within the 24-hour holding period established by the client for the method.

Calibration. A calibration was properly established. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit in the blanks.

Laboratory Control Samples. Laboratory control samples, identified as 2553022 and 2553020, were analyzed initially and every 20 samples. The recoveries were within the QC limits.

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TMM084

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2553019	Hexavalent Chromium	MB	QC-Water	06/09/2017 05:16	0.25	U	ug/L
2553026	Hexavalent Chromium	MB	QC-Water	06/09/2017 07:25	0.25	U	ug/L
2553030	Hexavalent Chromium	MB	QC-Water	06/09/2017 08:40	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TMM084

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2553021	Hexavalent Chromium	CCVL	06/09/2017 05:31	5	5.0	101		90 - 110
2553025	Hexavalent Chromium	CCVH	06/09/2017 07:18	20	20.2	101		90 - 110
2553029	Hexavalent Chromium	CCVL	06/09/2017 08:32	5	5.1	102		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TMM084

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2553020	Hexavalent Chromium	MRL	06/09/2017 05:24	0.25	0.26	103		50 - 150
2553022	Hexavalent Chromium	LCS	06/09/2017 05:39	10	9.9	98.7		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Title: 4-060917
Datasource: WETCHEMIC
Location: ICS2100\ICS2100 Sequence\Cr +6\2017\4-1706
Timebase: ICS2100
#Samples: 35
Created: 6/9/2017 2:06:04 AM by almdt.nouser
Last Update: 6/9/2017 2:09:17 AM by almdt.nouser

No.	Pos.	Name	*DilutionFactor	*SampleType	Comment	Program	Method	*Analyst	*Batch
1	1	Cal Std 1	1	CAL		cr+6	218_6_060917	MBW	
2	2	Cal Std 2	1	CAL		cr+6	218_6_060917	MBW	
3	3	Cal Std 3	1	CAL		cr+6	218_6_060917	MBW	
4	4	Cal Std 4	1	CAL		cr+6	218_6_060917	MBW	
5	5	Cal Std 5	1	CAL		cr+6	218_6_060917	MBW	
6	6	Cal Std 6	1	CAL		cr+6	218_6_060917	MBW	
7	7	2553019	1	MB	LRB	cr+6	218_6_060917	MBW	188559
8	8	2553020	1	MRL	MRL	cr+6	218_6_060917	MBW	188559
9	9	2553021	1	CCVL	LFB	cr+6	218_6_060917	MBW	188559
10	10	2553022	1	LCS	QCS	cr+6	218_6_060917	MBW	188559
11	11	2236025001	1	SAMPLE		cr+6	218_6_060917	MBW	188559
12	12	2236025001 DUP	1	DUP		cr+6	218_6_060917	MBW	188559
13	13	2236025002	1	SAMPLE		cr+6	218_6_060917	MBW	188559
14	14	2236025003	1	SAMPLE		cr+6	218_6_060917	MBW	188559
15	15	2236025004	1	SAMPLE		cr+6	218_6_060917	MBW	188559
16	16	2236124001	1	SAMPLE		cr+6	218_6_060917	MBW	188559
17	17	2553023	1	MS		cr+6	218_6_060917	MBW	188559
18	18	2553024	1	MSD		cr+6	218_6_060917	MBW	188559
19	19	2236125001	1	SAMPLE		cr+6	218_6_060917	MBW	188559
20	20	2236642001	1	SAMPLE		cr+6	218_6_060917	MBW	188559
21	21	2236642002	1	SAMPLE		cr+6	218_6_060917	MBW	188559
22	22	2236642003	1	SAMPLE		cr+6	218_6_060917	MBW	188559
23	23	2553025	1	CCVH		cr+6	218_6_060917	MBW	188559
24	24	2553026	1	MB		cr+6	218_6_060917	MBW	188559
25	25	2236125002	1	SAMPLE		cr+6	218_6_060917	MBW	188559
26	26	2553027	1	MS		cr+6	218_6_060917	MBW	188559
27	27	2553028	1	MSD		cr+6	218_6_060917	MBW	188559
28	28	2236642004	1	SAMPLE		cr+6	218_6_060917	MBW	188559
29	29	2236642004 DUP	1	DUP		cr+6	218_6_060917	MBW	188559
30	30	MW-1S	1	SAMPLE		cr+6	218_6_060917	MBW	188559
31	31	MW-16D	1	SAMPLE		cr+6	218_6_060917	MBW	188559
32	32	MW-31D	1	SAMPLE		cr+6	218_6_060917	MBW	188559
33	33	2553029	1	CCVL		cr+6	218_6_060917	MBW	188559
34	34	2553030	1	MB		cr+6	218_6_060917	MBW	188559
35	35	SHUTDOWN		MISC		cr+6	218_6_060917	MBW	188559

Chromeleon © Dionex Corporation, Version 6.80 SR11d Build 3302 (196279)

Cr+6 218.6 pH Filtration Prep

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
2236025001	Ammonium Hydroxide	X	Y
2236025002	Ammonium Hydroxide	X	Y
2236025003	Ammonium Hydroxide	X	Y
2236025004	Ammonium Hydroxide	X	Y

6/9/17

Date:	6.7.2017 2:50
Tech:	MBW

Queue:	WETC
Batch:	188559

Reagent:	
Cr+6 Buffer:	--

Reviewed by:	
Reviewed date:	

Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Ammonium Hydroxide - 161014002

_Q WETC|_B 188559|_D 6.7.2017 2:50

Cr+6 218.6 pH Filtration Prep

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
2236642001	Ammonium Hydroxide	X	Y
2236642002	Ammonium Hydroxide	X	Y
2236642003	Ammonium Hydroxide	X	Y
2236642004	Ammonium Hydroxide	X	Y
2236124001	Ammonium Hydroxide	X	Y
2236125001	Ammonium Hydroxide	X	Y
2236125002	Ammonium Hydroxide	X	Y

MBW 6/9/17

Date:	6.8.2017 3:00
Tech:	MBW

Queue:	WETC
Batch:	188559

Reagent:	
Cr+6 Buffer:	--

Reviewed by:	
Reviewed date:	

Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Ammonium Hydroxide - 161014002

_Q:WETC|_B:188559|_D:6.8.2017 3:00

Cr+6 218.6 pH Filtration Prep

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
MW-1S	Ammonium Hydroxide	X	Y
MW-16D	Ammonium Hydroxide	X	Y
MW-31D	Ammonium Hydroxide	X	Y

MBW 6/9/17

Date:	6.9.2017 1:00
Tech:	MBW

Queue:	WETC
Batch:	188559

Reagent:	
Cr+6 Buffer:	--

Reviewed by:	
Reviewed date:	

Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Ammonium Hydroxide - 161014002

_Q WETC|_B.188559|_D 6 9 2017 1 00

Revision 03/2016

Page:_____

ANION SUMMARY REPORT

No.	Name	Time	*Analyst	lutionFac	*Batch	*Instrument	Amount Cr6 UV_VIS_1
7	2553019	06/09/17 05:16	MBW	1	188559	IC-4	n.a.
8	2553020	06/09/17 05:24	MBW	1	188559	IC-4	0.258
9	2553021	06/09/17 05:31	MBW	1	188559	IC-4	5.027
10	2553022	06/09/17 05:39	MBW	1	188559	IC-4	9.874
11	2236025001	06/09/17 05:46	MBW	1	188559	IC-4	0.131
12	2236025001 DU	06/09/17 05:54	MBW	1	188559	IC-4	0.127
13	2236025002	06/09/17 06:01	MBW	1	188559	IC-4	n.a.
14	2236025003	06/09/17 06:09	MBW	1	188559	IC-4	n.a.
15	2236025004	06/09/17 06:16	MBW	1	188559	IC-4	n.a.
16	2236124001	06/09/17 06:24	MBW	1	188559	IC-4	0.028
17	2553023	06/09/17 06:31	MBW	1	188559	IC-4	4.685
18	2553024	06/09/17 06:39	MBW	1	188559	IC-4	4.549
19	2236125001	06/09/17 06:47	MBW	1	188559	IC-4	0.043
20	2236642001	06/09/17 06:55	MBW	1	188559	IC-4	n.a.
21	2236642002	06/09/17 07:02	MBW	1	188559	IC-4	n.a.
22	2236642003	06/09/17 07:10	MBW	1	188559	IC-4	n.a.
23	2553025	06/09/17 07:18	MBW	1	188559	IC-4	20.206
24	2553026	06/09/17 07:25	MBW	1	188559	IC-4	n.a.
25	2236125002	06/09/17 07:33	MBW	1	188559	IC-4	0.108
26	2553027	06/09/17 07:40	MBW	1	188559	IC-4	3.829
27	2553028	06/09/17 07:48	MBW	1	188559	IC-4	3.819
28	2236642004	06/09/17 07:55	MBW	1	188559	IC-4	n.a.
29	2236642004 DU	06/09/17 08:02	MBW	1	188559	IC-4	n.a.
30	MW-1S	06/09/17 08:10	MBW	1	188559	IC-4	n.a.
31	MW-16D	06/09/17 08:17	MBW	1	188559	IC-4	0.095
32	MW-31D	06/09/17 08:25	MBW	1	188559	IC-4	0.075
33	2553029	06/09/17 08:32	MBW	1	188559	IC-4	5.076
34	2553030	06/09/17 08:40	MBW	1	188559	IC-4	n.a.
35	SHUTDOWN	n.a.	MBW		188559	IC-4	n.a.

APPENDIX D—INVESTIGATION-DERIVED-WASTE FORMS

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc.

Job Number: 240-79233-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-79233-1	**TB-050417**					
Acetone		6.9	J	10	ug/L	8260C
240-79233-3	**WC-MRCGW-050417**					
1,1-Dichloroethane		2.4		1.0	ug/L	8260C
1,1-Dichloroethene		0.39	J	1.0	ug/L	8260C
2-Butanone (MEK)		1.5	J	10	ug/L	8260C
Acetone		5.0	J	10	ug/L	8260C
cis-1,2-Dichloroethene		6.7		1.0	ug/L	8260C
tert-Butyl alcohol (TBA)		10	J	50	ug/L	8260C
Methyl tert-butyl ether		3.6		1.0	ug/L	8260C
Trichloroethene		3.7		1.0	ug/L	8260C
Vinyl chloride		0.66	J	1.0	ug/L	8260C
Flashpoint		>200		1.00	Degrees F	1010A
TCLP						
Barium		0.053	J B	0.50	mg/L	6010B

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH1447829

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION #: *MDR000524413* GENERATOR NAME: *Middle River Complex*

GENERATOR CODE (Assigned by Clean Harbors): *MI5240* CITY: *Baltimore* STATE/PROVINCE: *MD* ZIP/POSTAL CODE: *21220*

ADDRESS: *195 Chesapeake Park Plaza Rd* PHONE: *(301) 528-3021*

CUSTOMER CODE (Assigned by Clean Harbors): *TE0740* CUSTOMER NAME: *Tetra Tech Inc*

ADDRESS: *20251 Century Boulevard Suite 200* CITY: *Germantown* STATE/PROVINCE: *MD* ZIP/POSTAL CODE: *20874*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *Non-Haz Water*

PROCESS GENERATING WASTE: **IDW Waste**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- [x] LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
- % FREE LIQUID
- % SETTLED SOLID
- % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS

[x] 1 2 3

% BY VOLUME (Approx.)

TOP *0.00*

MIDDLE *0.00*

BOTTOM *0.00*

VISCOSITY (If liquid present)
- [x] 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

Clear/Brown

ODOR
- [x] NONE
- MILD
- STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- [x] >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- 1-9%
- >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- [x] > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- [x] 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- [x] 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste. Include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
1,2-DICHLOROETHANE	0.0000000	--	2.0000000	PPB
1,2-DICHLOROETHENE	0.0000000	--	7.0000000	PPB
2-BUTANONE	0.0000000	--	2.0000000	PPB
ACETONE	0.0000000	--	5.0000000	PPB
BARIUM		--		Trace
CIS-1,2-DICHLOROETHENE	0.0000000	--	7.0000000	PPB
METHYL T-BUTYL ETHER	0.0000000	--	4.0000000	PPB
T-BUTYL ALCOHOL	0.0000000	--	4.0000000	PPB
TRICHLOROETHENE	0.0000000	--	4.0000000	PPB
VINYL CHLORIDE	0.0000000	--	1.0000000	PPB

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES NO

If yes, describe, including dimensions.

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING: ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies.

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G19* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W113*

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

NONE
☑ < 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code *OUTS1131*

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES ☑ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: *Not subject to LDR*
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS VERY SMALL QUANTITY GENERATOR (VSQG) OR A STATE EQUIVALENT DESIGNATION?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? _____ Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NON D.O.T. REGULATED, (WATER)

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY ☑ YEARLY OTHER

☑ CONTAINERIZED

1-100 CONTAINERS/SHIPMENT

STORAGE CAPACITY: *200*

CONTAINER TYPE:

PORTABLE TOTE TANK BOX|CARTON|CASE

CUBIC YARD BOX ☑ DRUM

OTHER:

DRUM SIZE: *55*

BULK LIQUID

GALLONS/SHIPMENT: *0 Min -0 Max* GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: *0 Min - 0 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
Scott Heinlein	Scott Heinlein	ESH Manager	6/5/2017

Addendum

D. COMPOSITION

CHEMICAL	MIN	--	MAX	UOM
WATER	100.0000000	--	100.00000	%

G. DOT/TDG INFORMATION

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CH1359861

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *MDR000524413* GENERATOR NAME *Middle River Complex*

GENERATOR CODE (Assigned by Clean Harbors) *MI5240* CITY *Baltimore* STATE/PROVINCE *MD* ZIP/POSTAL CODE *21220*

ADDRESS *195 Chesapeake Park Plaza Rd* PHONE (301) 528-3021

CUSTOMER CODE (Assigned by Clean Harbors) *TE0740* CUSTOMER NAME *Tetra Tech Inc*

ADDRESS *20251 Century Boulevard Suite 200* CITY *Germantown* STATE/PROVINCE *MD* ZIP/POSTAL CODE *20874*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *MRC HAZ WATER / 121316*

PROCESS GENERATING WASTE: Ground water sampling

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? No

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- [x] LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
- % FREE LIQUID
- % SETTLED SOLID
- % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS

[x] 1 2 3

% BY VOLUME (Approx.)

TOP *0.00*
MIDDLE *0.00*
BOTTOM *0.00*

VISCOSITY (If liquid present)
- [x] 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

varies

ODOR
- [x] NONE
- MILD
- STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 96 - 100 (35-38)
- 101 - 129 (38-54)
- [x] >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- 1-9%
- >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- [x] > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- [x] 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- [x] 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM
BARIUM		--		Trace
CADMIUM		--		Trace
CHROMIUM		--		Trace
METHYLENE CHLORIDE		--		Trace
TRICHLOROETHENE	3.7000000	--	3.7000000	PPM
WATER	100.0000000	--	100.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING: ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G19* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W113*

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0	*0.1500*			☑
D006	CADMIUM	1.0	*0.0011*			☑
D007	CHROMIUM	5.0	*0.0023*			☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE

< 1000 PPM

>= 1000 PPM

PCBs

☑ NONE

< 50 PPM

>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

F. REGULATORY STATUS

☑ YES ☐ NO USEPA HAZARDOUS WASTE?
F001

☐ YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

☐ YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

☑ YES ☐ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY:
VARIANCE INFO: *This is subject to LDR.*

☐ YES ☑ NO IS THIS A UNIVERSAL WASTE?

☐ YES ☐ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

☐ YES ☐ NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

☐ YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

☐ YES ☐ NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

☐ YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

☐ YES ☐ NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= 3KPA (.044 PSIA)?

☐ YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

☐ YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

☐ YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

☐ YES ☑ NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? ____ Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (TRICHLOROETHENE, METHYLENE CHLORIDE), 9, PG III

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY ☑ OTHER *VARIES*

☑ **CONTAINERIZED**

8-8 CONTAINERS/SHIPMENT

STORAGE CAPACITY: *8*
CONTAINER TYPE:

PORTABLE TOTE TANK BOX/CARTON/CASE
CUBIC YARD BOX ☑ DRUM
OTHER DRUM SIZE: *55*

BULK LIQUID

GALLONS/SHIPMENT: *0 Min -0 Max* GAL

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: *0 Min - 0 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
Michael Mushow	Michael Mushow	Sr. Staff ESH Engineer	1-6-17

Please print or type. (Form designed for use on elite (12-pitch) typewriter) 04 1702856754 SC PPW 5/30/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MDR000524412
2. Page 1 of 1
3. Emergency Response Phone: (800) 483-2718
4. Manifest Tracking Number: 011034578 FLE

5. Generator's Name and Mailing Address:
Middle River Complex
195 Chesapeake Park Plaza Rd
Middle River, MD 21220
Mike Musnene
Generator's Phone: (301) 529-2021

Generator's Site Address (if different than mailing address):
195 Chesapeake Park Plaza Rd
Baltimore, MD 21220

6. Transporter 1 Company Name: Clean Harbors Environmental Service, Inc
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 263-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (TRICHLOROETHENE, METHYLENE CHLORIDE), 9, PG III	01	DM	300	P	F001
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1 CH1359861 ERG#171 1x55DM

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Scott Heldrin
Signature: [signature]
Month / Day / Year

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PAUL ORTEM
Signature: [signature]
Month / Day / Year: 6 / 6 / 17
Transporter 2 Printed/Typed Name:
Signature:
Month / Day / Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month / Day / Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040
2.
3.
4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month / Day / Year

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. GENERATOR'S INITIAL COPY

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

CleanHarbors
ENVIRONMENTAL SERVICES®

Land Disposal Restriction Notification Form

Printed Date :Jun 05, 2017

MANIFEST INFORMATION

Generator : Middle River Complex

Address: 195 Chesapeake Park Plaza Rd
Baltimore,MD 21220

EPA ID #: M D R 0 0 0 5 2 4 4 1 3

Manifest Tracking Info.

011034578FLE

Sales Order No: 1702856754

LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category
1.	1	CH1359861	WASTEWATER	2 (This is subject to LDR.)

EPA Waste Code	EPA Waste SubCategory
F001	NONE

LDR Chemical Data

Chemical	Underlying Hazardous Constituents	Constituents of Concern	Contaminants Subject to Treatment
METHYLENE CHLORIDE	N	Y	N
TRICHLOROETHYLENE	N	Y	N

Certification	Applies to Manifest Line Items
Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.	1.

Waste analysis data, where available, is attached.

Signature : _____ Print Name _____

Title : _____ Date : _____

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) 014703029336 SC PPW 5/30/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
MDR000524413	1	(800) 483-2718	011040420 FLE

GENERATOR

5. Generator's Name and Mailing Address
Middle River Complex c/o Michael Mushano
195 Chesapeake Park Plaza Rd
Middle River, MD 21220
Generator's Phone: (304)529-2021

Generator's Site Address (if different than mailing address)
195 Chesapeake Park Plaza Rd
Baltimore, MD 21220

6. Transporter 1 Company Name
Clean Harbors Environmental Services, Inc

U.S. EPA ID Number
MA0039332250

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Clean Harbors Environmental Services, Inc.
2900 Rockefeller Avenue
Cleveland, OH 44115
Facility's Phone: (216)429-2492

U.S. EPA ID Number
OHD000724153

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON D.O.T. REGULATED, (WATER)	4	DM	1200	P			
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. CH1447029 4 X55

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Michael Mushano
Signature: Michael Mushano
Month: 06 Day: 27 Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Paul Dixon
Signature:
Month: 6 Day: 27 Year: 17

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H070			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

ANALYTICAL REPORT

Job Number: 240-79233-1

Job Description: LM MRC Waste Characterization

For:
Tetra Tech, Inc.
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Tony Apanavage



Approved for release.
John McFadden
Project Manager I
5/16/2017 3:42 PM

John McFadden, Project Manager I
4101 Shuffel Street NW, North Canton, OH, 44720
john.mcfadden@testamericainc.com
05/16/2017

cc: Samantha Brenner
Kelly Carper
Tobrena Sedlmyer

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

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CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: LM MRC Waste Characterization

Report Number: 240-79233-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 5/6/2017 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples TB-050417 (240-79233-1) and WC-MRCGW-050417 (240-79233-3) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/14/2017.

The continuing calibration verification (CCV) associated with batch 240-278855 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: TB-050417 (240-79233-1), WC-MRCGW-050417 (240-79233-3) and (CCVIS 240-278855/3).

The laboratory control sample (LCS) for analytical batch 240-278855 recovered outside control limits for n-propylbenzene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

The following sample was received preserved with hydrochloric acid: TB-050417 (240-79233-1) and WC-MRCGW-050417 (240-79233-3). The requested target analyte list includes 2-chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POLYCHLORINATED BIPHENYLS (PCBS)
Sample WC-MRCGW-050417 (240-79233-3) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 05/10/2017 and analyzed on 05/12/2017.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. All of the samples in this data set analyzed for PCBs were subjected to the sulfuric acid cleanup procedure before instrumental analysis, per EPA Method 3665A.

The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 240-278366 and analytical batch 240-278618 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP METALS (ICP)
Sample WC-MRCGW-050417 (240-79233-3) was analyzed for TCLP metals (ICP) in accordance with EPA SW-846 Methods

1311/6010B. The samples were leached on 05/08/2017, prepared on 05/09/2017 and analyzed on 05/11/2017.

Arsenic, Barium, Chromium and Selenium were detected in method blank LB 240-278088/1-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP MERCURY

Sample WC-MRCGW-050417 (240-79233-3) was analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 05/08/2017, prepared on 05/09/2017 and analyzed on 05/10/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FLASHPOINT

Sample WC-MRCGW-050417 (240-79233-3) was analyzed for flashpoint in accordance with EPA SW-846 Method 1010. The samples were analyzed on 05/16/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A3UX16 Analysis Batch Number: 272262

Lab Sample ID: STD8260 240-272262/7 IC Client Sample ID:

Date Analyzed: 03/29/17 14:25 Lab File ID: UXM1389.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dibromo-3-Chloropropane	11.32	Missed Peak	laveyt	03/29/17 15:11

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A3UX16 Analysis Batch Number: 272263

Lab Sample ID: STD8260 240-272263/7 IC Client Sample ID:

Date Analyzed: 03/29/17 14:25 Lab File ID: UXM1389.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dibromo-3-Chloropropane	11.32	Missed Peak	laveyt	03/29/17 15:11

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A2HP13 Analysis Batch Number: 277809

Lab Sample ID: STD005 240-277809/4 IC Client Sample ID:

Date Analyzed: 05/07/17 18:02 Lab File ID: SIG1050704.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1232 Peak 1	3.57	Split Peak	hassl	05/08/17 06:05
PCB-1232 Peak 2	4.18	Split Peak	hassl	05/08/17 06:05
PCB-1232 Peak 3	4.92	Split Peak	hassl	05/08/17 06:05
PCB-1232 Peak 4	5.12	Split Peak	hassl	05/08/17 06:05
PCB-1232 Peak 5	5.49	Split Peak	hassl	05/08/17 06:05

Lab Sample ID: STD05 240-277809/19 IC Client Sample ID:

Date Analyzed: 05/07/17 22:38 Lab File ID: SIG1050719.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1248 Peak 1	4.17	Baseline Smoothing	hassl	05/08/17 06:12
PCB-1248 Peak 2	5.73	Baseline Smoothing	hassl	05/08/17 06:12
PCB-1248 Peak 3	6.34	Baseline Smoothing	hassl	05/08/17 06:12
PCB-1248 Peak 4	6.62	Baseline Smoothing	hassl	05/08/17 06:12
PCB-1248 Peak 5	7.08	Baseline Smoothing	hassl	05/08/17 06:12

Lab Sample ID: STD005 240-277809/22 IC Client Sample ID:

Date Analyzed: 05/07/17 23:33 Lab File ID: SIG1050722.D GC Column: CLP-2 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	7.45	Baseline Smoothing	hassl	05/08/17 06:13
PCB-1254 Peak 2	7.66	Baseline Smoothing	hassl	05/08/17 06:13
PCB-1254 Peak 3	8.11	Baseline Smoothing	hassl	05/08/17 06:13
PCB-1254 Peak 4	8.33	Baseline Smoothing	hassl	05/08/17 06:13
PCB-1254 Peak 5	8.81	Baseline Smoothing	hassl	05/08/17 06:13

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A2HP13 Analysis Batch Number: 277809

Lab Sample ID: STD01 240-277809/23 IC Client Sample ID:

Date Analyzed: 05/07/17 23:51 Lab File ID: SIG1050723.D GC Column: CLP-2 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1254 Peak 1	7.45	Baseline Smoothing	hassl	05/08/17 06:14
PCB-1254 Peak 2	7.66	Baseline Smoothing	hassl	05/08/17 06:14
PCB-1254 Peak 3	8.11	Baseline Smoothing	hassl	05/08/17 06:14
PCB-1254 Peak 4	8.33	Baseline Smoothing	hassl	05/08/17 06:14
PCB-1254 Peak 5	8.81	Baseline Smoothing	hassl	05/08/17 06:14

PCBS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A2HP13 Analysis Batch Number: 278618

Lab Sample ID: 240-79239-X-1-A MS Client Sample ID:

Date Analyzed: 05/12/17 10:08 Lab File ID: SIG1051215.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	3.57	Baseline Smoothing	grantk	05/12/17 11:17
PCB-1016 Peak 2	4.18	Baseline Smoothing	grantk	05/12/17 11:17
PCB-1016 Peak 3	4.92	Baseline Smoothing	grantk	05/12/17 11:17
PCB-1016 Peak 4	5.11	Baseline Smoothing	grantk	05/12/17 11:17
PCB-1016 Peak 5	5.49	Baseline Smoothing	grantk	05/12/17 11:17

Lab Sample ID: 240-79239-V-1-A MSD Client Sample ID:

Date Analyzed: 05/12/17 10:26 Lab File ID: SIG1051216.D GC Column: CLP-1 (0.53mm ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016 Peak 1	3.57	Baseline Smoothing	grantk	05/12/17 11:19
PCB-1016 Peak 2	4.18	Baseline Smoothing	grantk	05/12/17 11:19
PCB-1016 Peak 3	4.92	Baseline Smoothing	grantk	05/12/17 11:19
PCB-1016 Peak 4	5.12	Baseline Smoothing	grantk	05/12/17 11:19
PCB-1016 Peak 5	5.49	Baseline Smoothing	grantk	05/12/17 11:19

SAMPLE SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-79233-1	TB-050417	Water	05/04/2017 0000	05/06/2017 0940
240-79233-3	WC-MRCGW-050417	Water	05/04/2017 1100	05/06/2017 0940

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-79233-1	**TB-050417**					
Acetone		6.9	J	10	ug/L	8260C
240-79233-3	**WC-MRCGW-050417**					
1,1-Dichloroethane		2.4		1.0	ug/L	8260C
1,1-Dichloroethene		0.39	J	1.0	ug/L	8260C
2-Butanone (MEK)		1.5	J	10	ug/L	8260C
Acetone		5.0	J	10	ug/L	8260C
cis-1,2-Dichloroethene		6.7		1.0	ug/L	8260C
tert-Butyl alcohol (TBA)		10	J	50	ug/L	8260C
Methyl tert-butyl ether		3.6		1.0	ug/L	8260C
Trichloroethene		3.7		1.0	ug/L	8260C
Vinyl chloride		0.66	J	1.0	ug/L	8260C
Flashpoint		>200		1.00	Degrees F	1010A
TCLP						
Barium		0.053	J B	0.50	mg/L	6010B

METHOD SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL CAN	SW846 8260C	
Purge and Trap	TAL CAN		SW846 5030C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL CAN	SW846 8082A	
Liquid-Liquid Extraction (Continuous)	TAL CAN		SW846 3520C
Metals (ICP)	TAL CAN	SW846 6010B	
TCLP Extraction	TAL CAN		SW846 1311
Preparation, Total Metals	TAL CAN		SW846 3010A
Mercury (CVAA)	TAL CAN	SW846 7470A	
TCLP Extraction	TAL CAN		SW846 1311
Preparation, Mercury	TAL CAN		SW846 7470A
Ignitability, Pensky-Martens Closed-Cup Method	TAL CAN	SW846 1010A	

Lab References:

TAL CAN = TestAmerica Canton

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Method	Analyst	Analyst ID
SW846 8260C	Lavey, Tim	TJL1
SW846 8082A	Grant, Katie	KMG
SW846 6010B	Counts, Karen	KLC
SW846 7470A	Nguyen, Diem	DTN
SW846 1010A	Harshman, Tom	TPH

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Client Sample ID: **TB-050417**

Lab Sample ID: 240-79233-1 Date Sampled: 05/04/2017 0000
Client Matrix: Water Date Received: 05/06/2017 0940

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-278855	Instrument ID:	A3UX16
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	UXM2612.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 2224			Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 2224				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.46	U	0.46	1.0
1,1,1-Trichloroethane	0.23	U	0.23	1.0
1,1,2,2-Tetrachloroethane	0.32	U	0.32	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	0.41	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.27	U	0.27	1.0
1,1-Dichloropropene	0.28	U	0.28	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.54	U	0.54	1.0
1,2,3-Trimethylbenzene	0.22	U	0.22	5.0
1,2,4-Trichlorobenzene	0.27	U	0.27	1.0
1,2,4-Trimethylbenzene	0.24	U	0.24	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	2.0
1,2-Dichlorobenzene	0.26	U	0.26	1.0
1,2-Dichloroethane	0.30	U	0.30	1.0
1,2-Dichloropropane	0.30	U	0.30	1.0
1,3-Dichlorobenzene	0.32	U	0.32	1.0
1,3-Dichloropropane	0.29	U	0.29	1.0
1,4-Dichlorobenzene	0.23	U	0.23	1.0
2,2-Dichloropropane	0.34	U	0.34	1.0
2-Butanone (MEK)	1.0	U	1.0	10
2-Chloroethyl vinyl ether	0.65	U	0.65	10
2-Chlorotoluene	0.28	U	0.28	1.0
2-Hexanone	1.2	U	1.2	10
4-Chlorotoluene	0.23	U	0.23	1.0
p-Isopropyltoluene	0.29	U	0.29	1.0
4-Methyl-2-pentanone (MIBK)	0.71	U	0.71	10
Acetone	6.9	J	1.8	10
Benzene	0.28	U	0.28	1.0
Bromobenzene	0.31	U	0.31	1.0
Bromoform	0.43	U	0.43	1.0
Bromomethane	0.42	U	0.42	1.0
Carbon disulfide	0.34	U	0.34	1.0
Carbon tetrachloride	0.35	U	0.35	1.0
Chlorobenzene	0.32	U	0.32	1.0
Dibromochloromethane	0.25	U	0.25	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.31	U	0.31	1.0
Chloromethane	0.43	U	0.43	1.0
cis-1,2-Dichloroethene	0.30	U	0.30	1.0
cis-1,3-Dichloropropene	0.26	U	0.26	1.0
Dibromomethane	0.46	U	0.46	1.0
Bromochloromethane	0.47	U	0.47	1.0
Dichlorodifluoromethane	0.50	U	0.50	1.0
Bromodichloromethane	0.30	U	0.30	1.0
tert-Butyl alcohol (TBA)	4.6	U	4.6	50

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Client Sample ID: **TB-050417**

Lab Sample ID: 240-79233-1 Date Sampled: 05/04/2017 0000
Client Matrix: Water Date Received: 05/06/2017 0940

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-278855	Instrument ID:	A3UX16
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	UXM2612.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 2224			Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 2224				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	0.26	U	0.26	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Diisopropyl ether	0.44	U	0.44	10
Isopropylbenzene	0.21	U	0.21	1.0
Methyl tert-butyl ether	0.27	U	0.27	1.0
Methylene Chloride	0.53	U	0.53	1.0
m-Xylene & p-Xylene	0.24	U	0.24	2.0
Naphthalene	0.25	U	0.25	1.0
n-Butylbenzene	0.21	U	0.21	1.0
N-Propylbenzene	0.45	U *	0.45	1.0
o-Xylene	0.28	U	0.28	1.0
sec-Butylbenzene	0.27	U	0.27	1.0
Styrene	0.23	U	0.23	1.0
Tert-amyl methyl ether	0.29	U	0.29	5.0
Ethyl t-butyl ether	0.35	U	0.35	5.0
Tetrachloroethene	0.30	U	0.30	1.0
Toluene	0.23	U	0.23	1.0
trans-1,2-Dichloroethene	0.29	U	0.29	1.0
trans-1,3-Dichloropropene	0.31	U	0.31	1.0
Trichloroethene	0.33	U	0.33	1.0
Trichlorofluoromethane	0.50	U	0.50	1.0
Vinyl acetate	0.28	U	0.28	2.0
Vinyl chloride	0.45	U	0.45	1.0
Xylenes, Total	0.24	U	0.24	2.0
tert-Butylbenzene	0.26	U	0.26	1.0
1,2-Dibromoethane	0.23	U	0.23	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	110		73 - 120
Dibromofluoromethane (Surr)	87		69 - 124
4-Bromofluorobenzene (Surr)	86		69 - 120
1,2-Dichloroethane-d4 (Surr)	91		61 - 138

Client Sample ID: **WC-MRCGW-050417**

Lab Sample ID: 240-79233-3 Date Sampled: 05/04/2017 1100
Client Matrix: Water Date Received: 05/06/2017 0940

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-278855	Instrument ID:	A3UX16
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	UXM2614.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 2311			Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 2311				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.46	U	0.46	1.0
1,1,1-Trichloroethane	0.23	U	0.23	1.0
1,1,2,2-Tetrachloroethane	0.32	U	0.32	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	0.41	1.0
1,1-Dichloroethane	2.4		0.25	1.0
1,1-Dichloroethene	0.39	J	0.27	1.0
1,1-Dichloropropene	0.28	U	0.28	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.54	U	0.54	1.0
1,2,3-Trimethylbenzene	0.22	U	0.22	5.0
1,2,4-Trichlorobenzene	0.27	U	0.27	1.0
1,2,4-Trimethylbenzene	0.24	U	0.24	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	2.0
1,2-Dichlorobenzene	0.26	U	0.26	1.0
1,2-Dichloroethane	0.30	U	0.30	1.0
1,2-Dichloropropane	0.30	U	0.30	1.0
1,3-Dichlorobenzene	0.32	U	0.32	1.0
1,3-Dichloropropane	0.29	U	0.29	1.0
1,4-Dichlorobenzene	0.23	U	0.23	1.0
2,2-Dichloropropane	0.34	U	0.34	1.0
2-Butanone (MEK)	1.5	J	1.0	10
2-Chloroethyl vinyl ether	0.65	U	0.65	10
2-Chlorotoluene	0.28	U	0.28	1.0
2-Hexanone	1.2	U	1.2	10
4-Chlorotoluene	0.23	U	0.23	1.0
p-Isopropyltoluene	0.29	U	0.29	1.0
4-Methyl-2-pentanone (MIBK)	0.71	U	0.71	10
Acetone	5.0	J	1.8	10
Benzene	0.28	U	0.28	1.0
Bromobenzene	0.31	U	0.31	1.0
Bromoform	0.43	U	0.43	1.0
Bromomethane	0.42	U	0.42	1.0
Carbon disulfide	0.34	U	0.34	1.0
Carbon tetrachloride	0.35	U	0.35	1.0
Chlorobenzene	0.32	U	0.32	1.0
Dibromochloromethane	0.25	U	0.25	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.31	U	0.31	1.0
Chloromethane	0.43	U	0.43	1.0
cis-1,2-Dichloroethene	6.7		0.30	1.0
cis-1,3-Dichloropropene	0.26	U	0.26	1.0
Dibromomethane	0.46	U	0.46	1.0
Bromochloromethane	0.47	U	0.47	1.0
Dichlorodifluoromethane	0.50	U	0.50	1.0
Bromodichloromethane	0.30	U	0.30	1.0
tert-Butyl alcohol (TBA)	10	J	4.6	50

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Client Sample ID: **WC-MRCGW-050417**

Lab Sample ID: 240-79233-3 Date Sampled: 05/04/2017 1100
Client Matrix: Water Date Received: 05/06/2017 0940

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	240-278855	Instrument ID:	A3UX16
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	UXM2614.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 2311			Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 2311				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	0.26	U	0.26	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Diisopropyl ether	0.44	U	0.44	10
Isopropylbenzene	0.21	U	0.21	1.0
Methyl tert-butyl ether	3.6		0.27	1.0
Methylene Chloride	0.53	U	0.53	1.0
m-Xylene & p-Xylene	0.24	U	0.24	2.0
Naphthalene	0.25	U	0.25	1.0
n-Butylbenzene	0.21	U	0.21	1.0
N-Propylbenzene	0.45	U *	0.45	1.0
o-Xylene	0.28	U	0.28	1.0
sec-Butylbenzene	0.27	U	0.27	1.0
Styrene	0.23	U	0.23	1.0
Tert-amyl methyl ether	0.29	U	0.29	5.0
Ethyl t-butyl ether	0.35	U	0.35	5.0
Tetrachloroethene	0.30	U	0.30	1.0
Toluene	0.23	U	0.23	1.0
trans-1,2-Dichloroethene	0.29	U	0.29	1.0
trans-1,3-Dichloropropene	0.31	U	0.31	1.0
Trichloroethene	3.7		0.33	1.0
Trichlorofluoromethane	0.50	U	0.50	1.0
Vinyl acetate	0.28	U	0.28	2.0
Vinyl chloride	0.66	J	0.45	1.0
Xylenes, Total	0.24	U	0.24	2.0
tert-Butylbenzene	0.26	U	0.26	1.0
1,2-Dibromoethane	0.23	U	0.23	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	93		73 - 120
Dibromofluoromethane (Surr)	84		69 - 124
4-Bromofluorobenzene (Surr)	95		69 - 120
1,2-Dichloroethane-d4 (Surr)	87		61 - 138

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Client Sample ID: **WC-MRCGW-050417**

Lab Sample ID: 240-79233-3 Date Sampled: 05/04/2017 1100
Client Matrix: Water Date Received: 05/06/2017 0940

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-278618	Instrument ID:	A2HP13
Prep Method:	3520C	Prep Batch:	240-278366	Initial Weight/Volume:	1030 mL
Dilution:	1.0			Final Weight/Volume:	2 mL
Analysis Date:	05/12/2017 1311			Injection Volume:	1 uL
Prep Date:	05/10/2017 1210			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aroclor-1016	0.049	U	0.049	0.097
Aroclor-1221	0.087	U	0.087	0.097
Aroclor-1232	0.068	U	0.068	0.097
Aroclor-1242	0.058	U	0.058	0.097
Aroclor-1248	0.049	U	0.049	0.097
Aroclor-1254	0.029	U	0.029	0.097
Aroclor-1260	0.039	U	0.039	0.097

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	51		21 - 120
DCB Decachlorobiphenyl	41		10 - 120

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Client Sample ID: **WC-MRCGW-050417**

Lab Sample ID: 240-79233-3 Date Sampled: 05/04/2017 1100
Client Matrix: Water Date Received: 05/06/2017 0940

6010B Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	240-278348	Instrument ID:	I12
Prep Method:	3010A	Prep Batch:	240-278141	Lab File ID:	I12051017A.asc
Dilution:	1.0	Leach Batch:	240-278088	Initial Weight/Volume:	50 mL
Analysis Date:	05/11/2017 0245			Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	05/08/2017 1600				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	0.0033	U	0.0033	0.050
Barium	0.053	J B	0.0024	0.50
Cadmium	0.00029	U	0.00029	0.050
Chromium	0.00055	U	0.00055	0.050
Lead	0.0019	U	0.0019	0.050
Selenium	0.0051	U	0.0051	0.050
Silver	0.00092	U	0.00092	0.050

7470A Mercury (CVAA)-TCLP

Analysis Method:	7470A	Analysis Batch:	240-278381	Instrument ID:	H3
Prep Method:	7470A	Prep Batch:	240-278142	Lab File ID:	0510A17H3.CSV
Dilution:	1.0	Leach Batch:	240-278088	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1451			Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	05/08/2017 1600				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	0.00013	U	0.00013	0.0020

General Chemistry

Client Sample ID: **WC-MRCGW-050417**

Lab Sample ID: 240-79233-3 Date Sampled: 05/04/2017 1100
Client Matrix: Water Date Received: 05/06/2017 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Flashpoint	>200		Degrees F	1.00	1.00	1.0	1010A
Analysis Batch: 240-279063	Analysis Date: 05/16/2017 1208						

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
240-79233-1	TB-050417	87	91	110	86
240-79233-3	WC-MRCGW-050417	84	87	93	95
MB 240-278854/7		82	85	102	95
MB 240-278855/7		82	85	102	95
LCS 240-278854/4		86	83	109	98
LCS 240-278855/4		86	83	109	98
240-79341-F-1 MS		77	85	97	89
240-79341-F-1 MSD		80	83	108	98

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	DCBP1 %Rec
240-79233-3	WC-MRCGW-050417	51	41
MB 240-278366/21-A		62	79
LCS 240-278366/22-A		57	73
240-79239-X-1-A MS		53	26
240-79239-V-1-A MSD		59	23

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	21-120
DCBP = DCB Decachlorobiphenyl	10-120

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Method Blank - Batch: 240-278854

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 240-278854/7	Analysis Batch:	240-278854	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2605.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 1942	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 1942				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	0.46	U	0.46	1.0
1,1,1-Trichloroethane	0.23	U	0.23	1.0
1,1,2,2-Tetrachloroethane	0.32	U	0.32	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	0.41	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.27	U	0.27	1.0
1,1-Dichloropropene	0.28	U	0.28	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.54	U	0.54	1.0
1,2,3-Trimethylbenzene	0.22	U	0.22	5.0
1,2,4-Trichlorobenzene	0.27	U	0.27	1.0
1,2,4-Trimethylbenzene	0.24	U	0.24	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	2.0
1,2-Dichlorobenzene	0.26	U	0.26	1.0
1,2-Dichloroethane	0.30	U	0.30	1.0
1,2-Dichloropropane	0.30	U	0.30	1.0
1,3-Dichlorobenzene	0.32	U	0.32	1.0
1,3-Dichloropropane	0.29	U	0.29	1.0
1,4-Dichlorobenzene	0.23	U	0.23	1.0
2,2-Dichloropropane	0.34	U	0.34	1.0
2-Butanone (MEK)	1.0	U	1.0	10
2-Chloroethyl vinyl ether	0.65	U	0.65	10
2-Chlorotoluene	0.28	U	0.28	1.0
2-Hexanone	1.2	U	1.2	10
4-Chlorotoluene	0.23	U	0.23	1.0
p-Isopropyltoluene	0.29	U	0.29	1.0
4-Methyl-2-pentanone (MIBK)	0.71	U	0.71	10
Acetone	1.8	U	1.8	10
Benzene	0.28	U	0.28	1.0
Bromobenzene	0.31	U	0.31	1.0
Bromoform	0.43	U	0.43	1.0
Bromomethane	0.42	U	0.42	1.0
Carbon disulfide	0.34	U	0.34	1.0
Carbon tetrachloride	0.35	U	0.35	1.0
Chlorobenzene	0.32	U	0.32	1.0
Dibromochloromethane	0.25	U	0.25	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.31	U	0.31	1.0
Chloromethane	0.43	U	0.43	1.0
cis-1,2-Dichloroethene	0.30	U	0.30	1.0
cis-1,3-Dichloropropene	0.26	U	0.26	1.0
Dibromomethane	0.46	U	0.46	1.0
Bromochloromethane	0.47	U	0.47	1.0
Dichlorodifluoromethane	0.50	U	0.50	1.0
Bromodichloromethane	0.30	U	0.30	1.0

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Method Blank - Batch: 240-278854

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 240-278854/7	Analysis Batch:	240-278854	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2605.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 1942	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 1942				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
tert-Butyl alcohol (TBA)	4.6	U	4.6	50
Ethylbenzene	0.26	U	0.26	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Diisopropyl ether	0.44	U	0.44	10
Isopropylbenzene	0.21	U	0.21	1.0
Methyl tert-butyl ether	0.27	U	0.27	1.0
Methylene Chloride	0.53	U	0.53	1.0
m-Xylene & p-Xylene	0.24	U	0.24	2.0
Naphthalene	0.25	U	0.25	1.0
n-Butylbenzene	0.21	U	0.21	1.0
N-Propylbenzene	0.45	U	0.45	1.0
o-Xylene	0.28	U	0.28	1.0
sec-Butylbenzene	0.27	U	0.27	1.0
Styrene	0.23	U	0.23	1.0
Tert-amyl methyl ether	0.29	U	0.29	5.0
Ethyl t-butyl ether	0.35	U	0.35	5.0
Tetrachloroethene	0.30	U	0.30	1.0
Toluene	0.23	U	0.23	1.0
trans-1,2-Dichloroethene	0.29	U	0.29	1.0
trans-1,3-Dichloropropene	0.31	U	0.31	1.0
Trichloroethene	0.33	U	0.33	1.0
Trichlorofluoromethane	0.50	U	0.50	1.0
Vinyl acetate	0.28	U	0.28	2.0
Vinyl chloride	0.45	U	0.45	1.0
Xylenes, Total	0.24	U	0.24	2.0
tert-Butylbenzene	0.26	U	0.26	1.0
1,2-Dibromoethane	0.23	U	0.23	1.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	102	73 - 120
Dibromofluoromethane (Surr)	82	69 - 124
4-Bromofluorobenzene (Surr)	95	69 - 120
1,2-Dichloroethane-d4 (Surr)	85	61 - 138

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Lab Control Sample - Batch: 240-278854

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 240-278854/4	Analysis Batch:	240-278854	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2602.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 1832	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 1832				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	20.0	21.3	107	73 - 136	
1,1,1-Trichloroethane	20.0	18.9	95	64 - 147	
1,1,2,2-Tetrachloroethane	20.0	24.2	121	58 - 122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.9	109	65 - 144	
1,1-Dichloroethane	20.0	20.9	104	74 - 120	
1,1-Dichloroethene	20.0	19.6	98	65 - 127	
1,1-Dichloropropene	20.0	20.9	104	80 - 122	
1,2,3-Trichlorobenzene	20.0	23.8	119	31 - 144	
1,2,3-Trichloropropane	20.0	23.4	117	53 - 134	
1,2,4-Trichlorobenzene	20.0	22.9	115	34 - 141	
1,2,4-Trimethylbenzene	20.0	23.4	117	80 - 120	
1,2-Dibromo-3-Chloropropane	20.0	21.9	110	50 - 130	
1,2-Dichlorobenzene	20.0	22.8	114	80 - 120	
1,2-Dichloroethane	20.0	18.6	93	68 - 133	
1,2-Dichloropropane	20.0	22.2	111	78 - 127	
1,3-Dichlorobenzene	20.0	22.7	113	80 - 120	
1,3-Dichloropropane	20.0	23.9	119	71 - 124	
1,4-Dichlorobenzene	20.0	22.2	111	80 - 120	
2,2-Dichloropropane	20.0	19.8	99	32 - 178	
2-Butanone (MEK)	40.0	39.7	99	43 - 149	
2-Chloroethyl vinyl ether	20.0	20.3	102	58 - 123	
2-Chlorotoluene	20.0	24.0	120	80 - 120	
2-Hexanone	40.0	45.1	113	28 - 169	
4-Chlorotoluene	20.0	23.6	118	79 - 120	
p-Isopropyltoluene	20.0	23.6	118	78 - 125	
4-Methyl-2-pentanone (MIBK)	40.0	40.4	101	53 - 144	
Acetone	40.0	28.8	72	35 - 131	
Benzene	20.0	20.4	102	79 - 120	
Bromobenzene	20.0	23.5	117	73 - 120	
Bromoform	20.0	20.0	100	55 - 145	
Bromomethane	20.0	17.6	88	17 - 158	
Carbon disulfide	20.0	20.3	102	49 - 141	
Carbon tetrachloride	20.0	18.6	93	55 - 171	
Chlorobenzene	20.0	22.5	113	80 - 120	
Dibromochloromethane	20.0	21.8	109	64 - 129	
Chloroethane	20.0	22.4	112	10 - 149	
Chloroform	20.0	18.6	93	80 - 120	
Chloromethane	20.0	19.4	97	59 - 124	
cis-1,2-Dichloroethene	20.0	19.4	97	77 - 120	
cis-1,3-Dichloropropene	20.0	20.5	102	75 - 120	
Dibromomethane	20.0	18.1	91	80 - 120	
Bromochloromethane	20.0	19.6	98	78 - 120	
Dichlorodifluoromethane	20.0	20.9	104	42 - 141	
Bromodichloromethane	20.0	18.7	93	79 - 125	
tert-Butyl alcohol (TBA)	200	189	95	52 - 136	
Ethylbenzene	20.0	23.3	116	80 - 120	

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Lab Control Sample - Batch: 240-278854

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 240-278854/4	Analysis Batch:	240-278854	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2602.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 1832	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 1832				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorobutadiene	20.0	22.5	113	36 - 146	
Isopropylbenzene	20.0	21.7	108	80 - 128	
Methyl tert-butyl ether	20.0	19.4	97	73 - 120	
Methylene Chloride	20.0	19.7	99	64 - 140	
m-Xylene & p-Xylene	20.0	23.0	115	80 - 120	
Naphthalene	20.0	23.3	117	31 - 127	
n-Butylbenzene	20.0	23.6	118	60 - 137	
N-Propylbenzene	20.0	24.6	123	76 - 120	*
o-Xylene	20.0	22.3	112	80 - 120	
sec-Butylbenzene	20.0	23.6	118	76 - 124	
Styrene	20.0	22.3	111	80 - 121	
Tetrachloroethene	20.0	22.6	113	80 - 122	
Toluene	20.0	23.4	117	78 - 120	
trans-1,2-Dichloroethene	20.0	20.6	103	74 - 124	
trans-1,3-Dichloropropene	20.0	22.6	113	67 - 120	
Trichloroethene	20.0	18.8	94	76 - 124	
Trichlorofluoromethane	20.0	18.7	94	27 - 176	
Vinyl acetate	20.0	21.6	108	42 - 141	
Vinyl chloride	20.0	21.6	108	65 - 124	
Xylenes, Total	40.0	45.3	113	80 - 120	
tert-Butylbenzene	20.0	23.2	116	79 - 120	
1,2-Dibromoethane	20.0	23.1	116	80 - 120	

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	109	73 - 120
Dibromofluoromethane (Surr)	86	69 - 124
4-Bromofluorobenzene (Surr)	98	69 - 120
1,2-Dichloroethane-d4 (Surr)	83	61 - 138

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-278854

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-79341-F-1 MS	Analysis Batch:	240-278854	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2627.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/15/2017 0412			Final Weight/Volume:	5 mL
Prep Date:	05/15/2017 0412				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-79341-F-1 MSD	Analysis Batch:	240-278854	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2628.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/15/2017 0434			Final Weight/Volume:	5 mL
Prep Date:	05/15/2017 0434				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1,2-Tetrachloroethane	93	92	67 - 142	1	18		
1,1,1-Trichloroethane	83	83	57 - 156	1	13		
1,1,2,2-Tetrachloroethane	3	2	51 - 123	3	17	J F1	J F1
1,1-Dichloroethane	93	91	69 - 122	2	11		
1,1-Dichloroethene	101	90	62 - 127	11	14		
1,2,3-Trichloropropane	114	118	41 - 152	3	12		
1,2-Dibromo-3-Chloropropane	95	101	48 - 130	6	31		
1,2-Dichloroethane	92	84	64 - 138	9	11		
1,2-Dichloropropane	98	98	72 - 131	0	12		
2-Butanone (MEK)	94	99	34 - 153	5	23		
2-Hexanone	114	117	21 - 184	3	12		
4-Methyl-2-pentanone (MIBK)	102	104	53 - 147	2	16		
Acetone	79	74	19 - 133	6	35		
Benzene	112	94	69 - 127	6	10		
Bromoform	84	93	61 - 135	9	13		
Bromomethane	83	78	10 - 148	6	35		
Carbon disulfide	71	64	46 - 143	10	18		
Carbon tetrachloride	78	76	53 - 175	1	17		
Chlorobenzene	102	101	76 - 120	0	12		
Dibromochloromethane	97	97	62 - 131	1	15		
Chloroethane	106	95	10 - 141	10	35		
Chloroform	86	82	74 - 125	5	11		
Chloromethane	86	84	34 - 127	2	25		
cis-1,2-Dichloroethene	88	85	69 - 127	3	11		
cis-1,3-Dichloropropene	88	87	68 - 120	2	13		
Dibromomethane	83	81	73 - 120	3	16		
Dichlorodifluoromethane	87	83	45 - 130	5	34		
Bromodichloromethane	85	80	75 - 128	6	13		
Ethylbenzene	106	103	72 - 121	3	15		
Methylene Chloride	83	85	52 - 137	2	12		
m-Xylene & p-Xylene	105	104	70 - 121	0	15		
o-Xylene	95	99	71 - 125	3	15		
Styrene	94	99	74 - 125	4	14		

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-278854

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-79341-F-1 MS	Analysis Batch:	240-278854	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2627.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/15/2017 0412			Final Weight/Volume:	5 mL
Prep Date:	05/15/2017 0412				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	240-79341-F-1 MSD	Analysis Batch:	240-278854	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2628.D
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/15/2017 0434			Final Weight/Volume:	5 mL
Prep Date:	05/15/2017 0434				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Tetrachloroethene	100	103	69 - 126	3	18		
Toluene	99	104	69 - 125	3	14		
trans-1,2-Dichloroethene	91	89	66 - 131	2	11		
trans-1,3-Dichloropropene	93	97	59 - 120	4	14		
Trichloroethene	153	153	68 - 129	0	12	F1	F1
Trichlorofluoromethane	81	76	28 - 172	6	26		
Vinyl acetate	0	0	51 - 134	NC	12	U F1	U F1
Vinyl chloride	94	93	55 - 123	1	12		
Xylenes, Total	100	101	71 - 122	1	14		
1,2-Dibromoethane	106	106	73 - 121	0	12		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	97	108	73 - 120
Dibromofluoromethane (Surr)	77	80	69 - 124
4-Bromofluorobenzene (Surr)	89	98	69 - 120
1,2-Dichloroethane-d4 (Surr)	85	83	61 - 138

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-278854

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	240-79341-F-1 MS	Units: ug/L	MSD Lab Sample ID:	240-79341-F-1 MSD	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	2.0		Dilution:	2.0	
Analysis Date:	05/15/2017 0412		Analysis Date:	05/15/2017 0434	
Prep Date:	05/15/2017 0412		Prep Date:	05/15/2017 0434	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
1,1,1,2-Tetrachloroethane	0.92	U	40.0	40.0	37.1		36.7	
1,1,1-Trichloroethane	0.46	U	40.0	40.0	33.4		33.0	
1,1,2,2-Tetrachloroethane	0.64	U	40.0	40.0	1.01	J F1	0.972	J F1
1,1-Dichloroethane	0.50	U	40.0	40.0	37.2		36.4	
1,1-Dichloroethene	0.54	U	40.0	40.0	40.2		36.0	
1,2,3-Trichloropropane	1.1	U	40.0	40.0	45.6		47.2	
1,2-Dibromo-3-Chloropropane	0.94	U	40.0	40.0	38.0		40.5	
1,2-Dichloroethane	0.60	U	40.0	40.0	36.8		33.7	
1,2-Dichloropropane	0.60	U	40.0	40.0	39.2		39.1	
2-Butanone (MEK)	2.0	U	80.0	80.0	75.2		78.9	
2-Hexanone	2.5	U	80.0	80.0	91.2		93.8	
4-Methyl-2-pentanone (MIBK)	1.4	U	80.0	80.0	81.9		83.3	
Acetone	3.5	U	80.0	80.0	62.9		59.5	
Benzene	69		40.0	40.0	114		107	
Bromoform	0.86	U	40.0	40.0	33.7		37.0	
Bromomethane	0.84	U	40.0	40.0	33.1		31.1	
Carbon disulfide	0.68	U	40.0	40.0	28.3		25.5	
Carbon tetrachloride	0.70	U	40.0	40.0	31.0		30.6	
Chlorobenzene	0.64	U	40.0	40.0	40.6		40.5	
Dibromochloromethane	0.50	U	40.0	40.0	38.7		38.9	
Chloroethane	0.82	U	40.0	40.0	42.4		38.2	
Chloroform	0.62	U	40.0	40.0	34.4		32.7	
Chloromethane	0.86	U	40.0	40.0	34.5		33.7	
cis-1,2-Dichloroethene	0.60	U	40.0	40.0	35.1		34.1	
cis-1,3-Dichloropropene	0.52	U	40.0	40.0	35.4		34.7	
Dibromomethane	0.92	U	40.0	40.0	33.2		32.3	
Dichlorodifluoromethane	1.0	U	40.0	40.0	34.9		33.3	
Bromodichloromethane	0.60	U	40.0	40.0	34.0		32.0	
Ethylbenzene	0.82	J	40.0	40.0	43.4		42.2	
Methylene Chloride	1.1	U	40.0	40.0	33.1		33.9	
m-Xylene & p-Xylene	16		40.0	40.0	57.5		57.3	
o-Xylene	15		40.0	40.0	53.3		54.8	
Styrene	0.98	J	40.0	40.0	38.8		40.5	
Tetrachloroethene	0.60	U	40.0	40.0	40.0		41.2	
Toluene	15		40.0	40.0	54.5		56.3	
trans-1,2-Dichloroethene	0.58	U	40.0	40.0	36.4		35.6	
trans-1,3-Dichloropropene	0.62	U	40.0	40.0	37.3		38.8	
Trichloroethene	0.66	U	40.0	40.0	61.2	F1	61.1	F1
Trichlorofluoromethane	1.0	U	40.0	40.0	32.3		30.5	
Vinyl acetate	0.56	U	40.0	40.0	0.56	U F1	0.56	U F1
Vinyl chloride	0.90	U	40.0	40.0	37.7		37.2	
Xylenes, Total	31		80.0	80.0	111		112	
1,2-Dibromoethane	0.46	U	40.0	40.0	42.5		42.5	

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Method Blank - Batch: 240-278855

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 240-278855/7	Analysis Batch:	240-278855	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2605.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 1942	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 1942				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	0.46	U	0.46	1.0
1,1,1-Trichloroethane	0.23	U	0.23	1.0
1,1,2,2-Tetrachloroethane	0.32	U	0.32	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	0.41	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.27	U	0.27	1.0
1,1-Dichloropropene	0.28	U	0.28	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.54	U	0.54	1.0
1,2,3-Trimethylbenzene	0.22	U	0.22	5.0
1,2,4-Trichlorobenzene	0.27	U	0.27	1.0
1,2,4-Trimethylbenzene	0.24	U	0.24	1.0
1,2-Dibromo-3-Chloropropane	0.47	U	0.47	2.0
1,2-Dichlorobenzene	0.26	U	0.26	1.0
1,2-Dichloroethane	0.30	U	0.30	1.0
1,2-Dichloropropane	0.30	U	0.30	1.0
1,3-Dichlorobenzene	0.32	U	0.32	1.0
1,3-Dichloropropane	0.29	U	0.29	1.0
1,4-Dichlorobenzene	0.23	U	0.23	1.0
2,2-Dichloropropane	0.34	U	0.34	1.0
2-Butanone (MEK)	1.0	U	1.0	10
2-Chloroethyl vinyl ether	0.65	U	0.65	10
2-Chlorotoluene	0.28	U	0.28	1.0
2-Hexanone	1.2	U	1.2	10
4-Chlorotoluene	0.23	U	0.23	1.0
p-Isopropyltoluene	0.29	U	0.29	1.0
4-Methyl-2-pentanone (MIBK)	0.71	U	0.71	10
Acetone	1.8	U	1.8	10
Benzene	0.28	U	0.28	1.0
Bromobenzene	0.31	U	0.31	1.0
Bromoform	0.43	U	0.43	1.0
Bromomethane	0.42	U	0.42	1.0
Carbon disulfide	0.34	U	0.34	1.0
Carbon tetrachloride	0.35	U	0.35	1.0
Chlorobenzene	0.32	U	0.32	1.0
Dibromochloromethane	0.25	U	0.25	1.0
Chloroethane	0.41	U	0.41	1.0
Chloroform	0.31	U	0.31	1.0
Chloromethane	0.43	U	0.43	1.0
cis-1,2-Dichloroethene	0.30	U	0.30	1.0
cis-1,3-Dichloropropene	0.26	U	0.26	1.0
Dibromomethane	0.46	U	0.46	1.0
Bromochloromethane	0.47	U	0.47	1.0
Dichlorodifluoromethane	0.50	U	0.50	1.0
Bromodichloromethane	0.30	U	0.30	1.0

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Method Blank - Batch: 240-278855

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 240-278855/7	Analysis Batch:	240-278855	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2605.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 1942	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 1942				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
tert-Butyl alcohol (TBA)	4.6	U	4.6	50
Ethylbenzene	0.26	U	0.26	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Diisopropyl ether	0.44	U	0.44	10
Isopropylbenzene	0.21	U	0.21	1.0
Methyl tert-butyl ether	0.27	U	0.27	1.0
Methylene Chloride	0.53	U	0.53	1.0
m-Xylene & p-Xylene	0.24	U	0.24	2.0
Naphthalene	0.25	U	0.25	1.0
n-Butylbenzene	0.21	U	0.21	1.0
N-Propylbenzene	0.45	U	0.45	1.0
o-Xylene	0.28	U	0.28	1.0
sec-Butylbenzene	0.27	U	0.27	1.0
Styrene	0.23	U	0.23	1.0
Tert-amyl methyl ether	0.29	U	0.29	5.0
Ethyl t-butyl ether	0.35	U	0.35	5.0
Tetrachloroethene	0.30	U	0.30	1.0
Toluene	0.23	U	0.23	1.0
trans-1,2-Dichloroethene	0.29	U	0.29	1.0
trans-1,3-Dichloropropene	0.31	U	0.31	1.0
Trichloroethene	0.33	U	0.33	1.0
Trichlorofluoromethane	0.50	U	0.50	1.0
Vinyl acetate	0.28	U	0.28	2.0
Vinyl chloride	0.45	U	0.45	1.0
Xylenes, Total	0.24	U	0.24	2.0
tert-Butylbenzene	0.26	U	0.26	1.0
1,2-Dibromoethane	0.23	U	0.23	1.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	102	73 - 120
Dibromofluoromethane (Surr)	82	69 - 124
4-Bromofluorobenzene (Surr)	95	69 - 120
1,2-Dichloroethane-d4 (Surr)	85	61 - 138

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Lab Control Sample - Batch: 240-278855

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 240-278855/4	Analysis Batch:	240-278855	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2602.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 1832	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 1832				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	20.0	21.3	107	73 - 136	
1,1,1-Trichloroethane	20.0	18.9	95	64 - 147	
1,1,2,2-Tetrachloroethane	20.0	24.2	121	58 - 122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.9	109	65 - 144	
1,1-Dichloroethane	20.0	20.9	104	74 - 120	
1,1-Dichloroethene	20.0	19.6	98	65 - 127	
1,1-Dichloropropene	20.0	20.9	104	80 - 122	
1,2,3-Trichlorobenzene	20.0	23.8	119	31 - 144	
1,2,3-Trichloropropane	20.0	23.4	117	53 - 134	
1,2,4-Trichlorobenzene	20.0	22.9	115	34 - 141	
1,2,4-Trimethylbenzene	20.0	23.4	117	80 - 120	
1,2-Dibromo-3-Chloropropane	20.0	21.9	110	50 - 130	
1,2-Dichlorobenzene	20.0	22.8	114	80 - 120	
1,2-Dichloroethane	20.0	18.6	93	68 - 133	
1,2-Dichloropropane	20.0	22.2	111	78 - 127	
1,3-Dichlorobenzene	20.0	22.7	113	80 - 120	
1,3-Dichloropropane	20.0	23.9	119	71 - 124	
1,4-Dichlorobenzene	20.0	22.2	111	80 - 120	
2,2-Dichloropropane	20.0	19.8	99	32 - 178	
2-Butanone (MEK)	40.0	37.2	93	43 - 149	
2-Chloroethyl vinyl ether	20.0	20.3	102	58 - 123	
2-Chlorotoluene	20.0	24.0	120	80 - 120	
2-Hexanone	40.0	45.1	113	28 - 169	
4-Chlorotoluene	20.0	23.6	118	79 - 120	
p-Isopropyltoluene	20.0	23.6	118	78 - 125	
4-Methyl-2-pentanone (MIBK)	40.0	40.4	101	53 - 144	
Acetone	40.0	28.8	72	35 - 131	
Benzene	20.0	20.4	102	79 - 120	
Bromobenzene	20.0	23.5	117	73 - 120	
Bromoform	20.0	20.0	100	55 - 145	
Bromomethane	20.0	17.6	88	17 - 158	
Carbon disulfide	20.0	20.3	102	49 - 141	
Carbon tetrachloride	20.0	18.6	93	55 - 171	
Chlorobenzene	20.0	22.5	113	80 - 120	
Dibromochloromethane	20.0	21.8	109	64 - 129	
Chloroethane	20.0	22.4	112	10 - 149	
Chloroform	20.0	18.6	93	80 - 120	
Chloromethane	20.0	19.4	97	59 - 124	
cis-1,2-Dichloroethene	20.0	19.4	97	77 - 120	
cis-1,3-Dichloropropene	20.0	20.5	102	75 - 120	
Dibromomethane	20.0	18.1	91	80 - 120	
Bromochloromethane	20.0	19.6	98	78 - 120	
Dichlorodifluoromethane	20.0	20.9	104	42 - 141	
Bromodichloromethane	20.0	18.7	93	79 - 125	
tert-Butyl alcohol (TBA)	200	189	95	52 - 136	
Ethylbenzene	20.0	23.3	116	80 - 120	

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Lab Control Sample - Batch: 240-278855

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 240-278855/4	Analysis Batch:	240-278855	Instrument ID:	A3UX16
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXM2602.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/14/2017 1832	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/14/2017 1832				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorobutadiene	20.0	22.5	113	36 - 146	
Isopropylbenzene	20.0	21.7	108	80 - 128	
Methyl tert-butyl ether	20.0	19.4	97	73 - 120	
Methylene Chloride	20.0	19.7	99	64 - 140	
m-Xylene & p-Xylene	20.0	23.0	115	80 - 120	
Naphthalene	20.0	23.3	117	31 - 127	
n-Butylbenzene	20.0	23.6	118	60 - 137	
N-Propylbenzene	20.0	24.6	123	76 - 120	*
o-Xylene	20.0	22.3	112	80 - 120	
sec-Butylbenzene	20.0	23.6	118	76 - 124	
Styrene	20.0	22.3	111	80 - 121	
Tetrachloroethene	20.0	22.6	113	80 - 122	
Toluene	20.0	23.4	117	78 - 120	
trans-1,2-Dichloroethene	20.0	20.6	103	74 - 124	
trans-1,3-Dichloropropene	20.0	22.6	113	67 - 120	
Trichloroethene	20.0	18.8	94	76 - 124	
Trichlorofluoromethane	20.0	18.7	94	27 - 176	
Vinyl acetate	20.0	21.6	108	42 - 141	
Vinyl chloride	20.0	21.6	108	65 - 124	
Xylenes, Total	40.0	45.3	113	80 - 120	
tert-Butylbenzene	20.0	23.2	116	79 - 120	
1,2-Dibromoethane	20.0	23.1	116	80 - 120	

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	109	73 - 120
Dibromofluoromethane (Surr)	86	69 - 124
4-Bromofluorobenzene (Surr)	98	69 - 120
1,2-Dichloroethane-d4 (Surr)	83	61 - 138

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Method Blank - Batch: 240-278366

Method: 8082A
Preparation: 3520C

Lab Sample ID:	MB 240-278366/21-A	Analysis Batch:	240-278618	Instrument ID:	A2HP13
Client Matrix:	Water	Prep Batch:	240-278366	Lab File ID:	SIG1051209.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/12/2017 0817	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	05/10/2017 1210			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor-1016	0.050	U	0.050	0.10
Aroclor-1221	0.090	U	0.090	0.10
Aroclor-1232	0.070	U	0.070	0.10
Aroclor-1242	0.060	U	0.060	0.10
Aroclor-1248	0.050	U	0.050	0.10
Aroclor-1254	0.030	U	0.030	0.10
Aroclor-1260	0.040	U	0.040	0.10

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	62	21 - 120
DCB Decachlorobiphenyl	79	10 - 120

Lab Control Sample - Batch: 240-278366

Method: 8082A
Preparation: 3520C

Lab Sample ID:	LCS 240-278366/22-A	Analysis Batch:	240-278618	Instrument ID:	A2HP13
Client Matrix:	Water	Prep Batch:	240-278366	Lab File ID:	SIG1051210.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	05/12/2017 0836	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	05/10/2017 1210			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor-1016	2.50	1.37	55	32 - 120	
Aroclor-1260	2.50	1.55	62	36 - 120	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	57	21 - 120
DCB Decachlorobiphenyl	73	10 - 120

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-278366

Method: 8082A
Preparation: 3520C

MS Lab Sample ID:	240-79239-X-1-A MS	Analysis Batch:	240-278618	Instrument ID:	A2HP13
Client Matrix:	Water	Prep Batch:	240-278366	Lab File ID:	SIG1051215.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1040 mL
Analysis Date:	05/12/2017 1008			Final Weight/Volume:	2 mL
Prep Date:	05/10/2017 1210			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	240-79239-V-1-A MSD	Analysis Batch:	240-278618	Instrument ID:	A2HP13
Client Matrix:	Water	Prep Batch:	240-278366	Lab File ID:	SIG1051216.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1040 mL
Analysis Date:	05/12/2017 1026			Final Weight/Volume:	2 mL
Prep Date:	05/10/2017 1210			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor-1016	55	55	24 - 121	54	30	p	F2
Aroclor-1260	63	54	10 - 120	60	30	p	F2

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	53	59	21 - 120
DCB Decachlorobiphenyl	26	23	10 - 120

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-278366

Method: 8082A
Preparation: 3520C

MS Lab Sample ID:	240-79239-X-1-A MS	Units: ug/L	MSD Lab Sample ID: 240-79239-V-1-A MSD
Client Matrix:	Water		Client Matrix: Water
Dilution:	1.0		Dilution: 1.0
Analysis Date:	05/12/2017 1008		Analysis Date: 05/12/2017 1026
Prep Date:	05/10/2017 1210		Prep Date: 05/10/2017 1210
Leach Date:	N/A		Leach Date: N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Aroclor-1016	0.048	U	2.40	2.40	1.33	p	1.31	F2
Aroclor-1260	0.038	U	2.40	2.40	1.51	p	1.31	F2

Client: Tetra Tech, Inc. Job Number: 240-79233-1

TCLP SPLPE Leachate Blank - Batch: 240-278141

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB 240-278088/1-B	Analysis Batch:	240-278348	Instrument ID:	I12
Client Matrix:	Water	Prep Batch:	240-278141	Lab File ID:	I12051017A.asc
Dilution:	1.0	Leach Batch:	240-278088	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1353	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	05/08/2017 1600				

Analyte	Result	Qual	MDL	RL
Arsenic	0.00577	J	0.0033	0.050
Barium	0.00313	J	0.0024	0.50
Cadmium	0.00029	U	0.00029	0.050
Chromium	0.00115	J	0.00055	0.050
Lead	0.0019	U	0.0019	0.050
Selenium	0.00679	J	0.0051	0.050
Silver	0.00092	U	0.00092	0.050

Method Blank - Batch: 240-278141

Method: 6010B
Preparation: 3010A

Lab Sample ID:	MB 240-278141/2-A	Analysis Batch:	240-278348	Instrument ID:	I12
Client Matrix:	Water	Prep Batch:	240-278141	Lab File ID:	I12051017A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1407	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	0.0033	U	0.0033	0.050
Barium	0.0024	U	0.0024	0.50
Cadmium	0.00029	U	0.00029	0.050
Chromium	0.00055	U	0.00055	0.050
Lead	0.0019	U	0.0019	0.050
Selenium	0.0051	U	0.0051	0.050
Silver	0.00092	U	0.00092	0.050

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Lab Control Sample - Batch: 240-278141

Method: 6010B
Preparation: 3010A

Lab Sample ID:	LCS 240-278141/3-A	Analysis Batch:	240-278348	Instrument ID:	I12
Client Matrix:	Water	Prep Batch:	240-278141	Lab File ID:	I12051017A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1411	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	2.00	2.21	111	50 - 150	
Barium	2.00	2.02	101	50 - 150	
Cadmium	0.0500	0.0533	107	50 - 150	
Chromium	0.200	0.205	103	50 - 150	
Lead	0.500	0.479	96	50 - 150	
Selenium	2.00	2.23	112	50 - 150	
Silver	0.0500	0.0555	111	50 - 150	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-278141

Method: 6010B
Preparation: 3010A
TCLP

MS Lab Sample ID:	240-79231-B-1-D MS ^5	Analysis Batch:	240-278348	Instrument ID:	I12
Client Matrix:	Water	Prep Batch:	240-278141	Lab File ID:	I12051017A.asc
Dilution:	5.0	Leach Batch:	240-278088	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1429			Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	05/08/2017 1600				

MSD Lab Sample ID:	240-79231-B-1-E MSD ^5	Analysis Batch:	240-278348	Instrument ID:	I12
Client Matrix:	Water	Prep Batch:	240-278141	Lab File ID:	I12051017A.asc
Dilution:	5.0	Leach Batch:	240-278088	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1434			Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	05/08/2017 1600				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	108	107	75 - 125	0	20		
Barium	103	101	75 - 125	2	20		
Cadmium	103	103	75 - 125	0	20		
Chromium	103	102	75 - 125	1	20		
Lead	100	100	75 - 125	0	20		
Selenium	112	107	75 - 125	4	20		
Silver	105	105	75 - 125	1	20		

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-278141

Method: 6010B
Preparation: 3010A
TCLP

MS Lab Sample ID:	240-79231-B-1-D MS ^5	Units:	mg/L
Client Matrix:	Water		
Dilution:	5.0		
Analysis Date:	05/10/2017 1429		
Prep Date:	05/09/2017 1400		
Leach Date:	05/08/2017 1600		

MSD Lab Sample ID:	240-79231-B-1-E MSD ^5
Client Matrix:	Water
Dilution:	5.0
Analysis Date:	05/10/2017 1434
Prep Date:	05/09/2017 1400
Leach Date:	05/08/2017 1600

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Arsenic	0.0070	J	5.00	5.00	5.40	5.38
Barium	0.17	J	50.0	50.0	51.7	50.8
Cadmium	0.023	J	1.00	1.00	1.06	1.05
Chromium	0.018	J	5.00	5.00	5.15	5.11
Lead	0.015	J	5.00	5.00	5.01	5.02
Selenium	0.011	J	1.00	1.00	1.13	1.08
Silver	0.00092	U	1.00	1.00	1.05	1.05

Serial Dilution - Batch: 240-278141

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	240-79231-B-1-C SD ^5	Analysis Batch:	240-278348	Instrument ID:	I12
Client Matrix:	Water	Prep Batch:	240-278141	Lab File ID:	I12051017A.asc
Dilution:	5.0	Leach Batch:	240-278088	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1420	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	05/08/2017 1600				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Arsenic	0.0070	J	0.0260	NC	10	J
Barium	0.17	J	0.171	1.0	10	J
Cadmium	0.023	J	0.0220	2.7	10	J
Chromium	0.018	J	0.0169	NC	10	J
Lead	0.015	J	0.0127	NC	10	J
Selenium	0.011	J	0.026	NC	10	U
Silver	0.00092	U	0.0046	NC	10	U

Client: Tetra Tech, Inc. Job Number: 240-79233-1

TCLP SPLPE Leachate Blank - Batch: 240-278142

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB 240-278088/1-C	Analysis Batch:	240-278381	Instrument ID:	H3
Client Matrix:	Water	Prep Batch:	240-278142	Lab File ID:	0510A17H3.CSV
Dilution:	1.0	Leach Batch:	240-278088	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1411	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	05/08/2017 1600				

Analyte	Result	Qual	MDL	RL
Mercury	0.00013	U	0.00013	0.0020

Method Blank - Batch: 240-278142

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 240-278142/2-A	Analysis Batch:	240-278381	Instrument ID:	H3
Client Matrix:	Water	Prep Batch:	240-278142	Lab File ID:	0510A17H3.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1413	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.00013	U	0.00013	0.0020

Lab Control Sample - Batch: 240-278142

Method: 7470A
Preparation: 7470A

Lab Sample ID:	LCS 240-278142/3-A	Analysis Batch:	240-278381	Instrument ID:	H3
Client Matrix:	Water	Prep Batch:	240-278142	Lab File ID:	0510A17H3.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1415	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00499	100	80 - 120	

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-278142

Method: 7470A
Preparation: 7470A
TCLP

MS Lab Sample ID:	240-79231-B-1-G MS	Analysis Batch:	240-278381	Instrument ID:	H3
Client Matrix:	Water	Prep Batch:	240-278142	Lab File ID:	0510A17H3.CSV
Dilution:	1.0	Leach Batch:	240-278088	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1420			Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	05/08/2017 1600				

MSD Lab Sample ID:	240-79231-B-1-H MSD	Analysis Batch:	240-278381	Instrument ID:	H3
Client Matrix:	Water	Prep Batch:	240-278142	Lab File ID:	0510A17H3.CSV
Dilution:	1.0	Leach Batch:	240-278088	Initial Weight/Volume:	50 mL
Analysis Date:	05/10/2017 1426			Final Weight/Volume:	50 mL
Prep Date:	05/09/2017 1400				
Leach Date:	05/08/2017 1600				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	96	97	80 - 120	2	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-278142

Method: 7470A
Preparation: 7470A
TCLP

MS Lab Sample ID:	240-79231-B-1-G MS	Units:	mg/L	MSD Lab Sample ID:	240-79231-B-1-H MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	05/10/2017 1420			Analysis Date:	05/10/2017 1426
Prep Date:	05/09/2017 1400			Prep Date:	05/09/2017 1400
Leach Date:	05/08/2017 1600			Leach Date:	05/08/2017 1600

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	0.00013 U	0.00500	0.00500	0.00478	0.00486

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Lab Control Sample - Batch: 240-279063

Method: 1010A
Preparation: N/A

Lab Sample ID:	LCS 240-279063/1	Analysis Batch:	240-279063	Instrument ID:	WHITEY
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/16/2017 0630	Units:	Degrees F	Final Weight/Volume:	70 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Flashpoint	81.0	79.00	98	97 - 103	

Duplicate - Batch: 240-279063

Method: 1010A
Preparation: N/A

Lab Sample ID:	240-79458-C-3 DU	Analysis Batch:	240-279063	Instrument ID:	WHITEY
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	05/16/2017 1024	Units:	Degrees F	Final Weight/Volume:	70 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Flashpoint	>200	>200	NC	20	

DATA REPORTING QUALIFIERS

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	*	LCS or LCSD is outside acceptance limits.
	F1	MS and/or MSD Recovery is outside acceptance limits.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F2	MS/MSD RPD exceeds control limits
	p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
Metals		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Tetra Tech, Inc. Job Number: 240-79233-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:240-278854					
LCS 240-278854/4	Lab Control Sample	T	Water	8260C	
MB 240-278854/7	Method Blank	T	Water	8260C	
240-79341-F-1 MS	Matrix Spike	T	Water	8260C	
240-79341-F-1 MSD	Matrix Spike Duplicate	T	Water	8260C	
Analysis Batch:240-278855					
LCS 240-278855/4	Lab Control Sample	T	Water	8260C	
MB 240-278855/7	Method Blank	T	Water	8260C	
240-79233-1	TB-050417	T	Water	8260C	
240-79233-3	WC-MRCGW-050417	T	Water	8260C	

Report Basis
T = Total

GC Semi VOA					
Prep Batch: 240-278366					
LCS 240-278366/22-A	Lab Control Sample	T	Water	3520C	
MB 240-278366/21-A	Method Blank	T	Water	3520C	
240-79233-3	WC-MRCGW-050417	T	Water	3520C	
240-79239-X-1-A MS	Matrix Spike	T	Water	3520C	
240-79239-V-1-A MSD	Matrix Spike Duplicate	T	Water	3520C	
Analysis Batch:240-278618					
LCS 240-278366/22-A	Lab Control Sample	T	Water	8082A	240-278366
MB 240-278366/21-A	Method Blank	T	Water	8082A	240-278366
240-79233-3	WC-MRCGW-050417	T	Water	8082A	240-278366
240-79239-X-1-A MS	Matrix Spike	T	Water	8082A	240-278366
240-79239-V-1-A MSD	Matrix Spike Duplicate	T	Water	8082A	240-278366

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-79233-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 240-278088					
LB 240-278088/1-B	TCLP SPLPE Leachate Blank	P	Water	1311	
LB 240-278088/1-C	TCLP SPLPE Leachate Blank	P	Water	1311	
240-79231-B-1-D MS ^5	Matrix Spike	P	Water	1311	
240-79231-B-1-G MS	Matrix Spike	P	Water	1311	
240-79231-B-1-E MSD ^5	Matrix Spike Duplicate	P	Water	1311	
240-79231-B-1-H MSD	Matrix Spike Duplicate	P	Water	1311	
240-79233-3	WC-MRCGW-050417	P	Water	1311	
Prep Batch: 240-278141					
LCS 240-278141/3-A	Lab Control Sample	T	Water	3010A	
MB 240-278141/2-A	Method Blank	T	Water	3010A	
LB 240-278088/1-B	TCLP SPLPE Leachate Blank	P	Water	3010A	240-278088
240-79231-B-1-D MS ^5	Matrix Spike	P	Water	3010A	240-278088
240-79231-B-1-E MSD ^5	Matrix Spike Duplicate	P	Water	3010A	240-278088
240-79233-3	WC-MRCGW-050417	P	Water	3010A	240-278088
Prep Batch: 240-278142					
LCS 240-278142/3-A	Lab Control Sample	T	Water	7470A	
MB 240-278142/2-A	Method Blank	T	Water	7470A	
LB 240-278088/1-C	TCLP SPLPE Leachate Blank	P	Water	7470A	240-278088
240-79231-B-1-G MS	Matrix Spike	P	Water	7470A	240-278088
240-79231-B-1-H MSD	Matrix Spike Duplicate	P	Water	7470A	240-278088
240-79233-3	WC-MRCGW-050417	P	Water	7470A	240-278088
Analysis Batch:240-278348					
LCS 240-278141/3-A	Lab Control Sample	T	Water	6010B	240-278141
MB 240-278141/2-A	Method Blank	T	Water	6010B	240-278141
LB 240-278088/1-B	TCLP SPLPE Leachate Blank	P	Water	6010B	240-278141
240-79231-B-1-D MS ^5	Matrix Spike	P	Water	6010B	240-278141
240-79231-B-1-E MSD ^5	Matrix Spike Duplicate	P	Water	6010B	240-278141
240-79233-3	WC-MRCGW-050417	P	Water	6010B	240-278141
Analysis Batch:240-278381					
LCS 240-278142/3-A	Lab Control Sample	T	Water	7470A	240-278142
MB 240-278142/2-A	Method Blank	T	Water	7470A	240-278142
LB 240-278088/1-C	TCLP SPLPE Leachate Blank	P	Water	7470A	240-278142
240-79231-B-1-G MS	Matrix Spike	P	Water	7470A	240-278142
240-79231-B-1-H MSD	Matrix Spike Duplicate	P	Water	7470A	240-278142
240-79233-3	WC-MRCGW-050417	P	Water	7470A	240-278142

Report Basis
P = TCLP
T = Total

Client: Tetra Tech, Inc. Job Number: 240-79233-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:240-279063					
LCS 240-279063/1	Lab Control Sample	T	Water	1010A	
240-79233-3	WC-MRCGW-050417	T	Water	1010A	
240-79458-C-3 DU	Duplicate	T	Water	1010A	

Report Basis
T = Total

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Laboratory Chronicle

Lab ID: 240-79233-1 **Client ID: TB-050417**

Sample Date/Time: 05/04/2017 00:00 Received Date/Time: 05/06/2017 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	240-79233-B-1		240-278855		05/14/2017 22:24	1	TAL CAN	TJL1
A:8260C	240-79233-B-1		240-278855		05/14/2017 22:24	1	TAL CAN	TJL1

Lab ID: 240-79233-3 **Client ID: WC-MRCGW-050417**

Sample Date/Time: 05/04/2017 11:00 Received Date/Time: 05/06/2017 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	240-79233-B-3		240-278855		05/14/2017 23:11	1	TAL CAN	TJL1
A:8260C	240-79233-B-3		240-278855		05/14/2017 23:11	1	TAL CAN	TJL1
P:3520C	240-79233-G-3-A		240-278618	240-278366	05/10/2017 12:10	1	TAL CAN	cs
A:8082A	240-79233-G-3-A		240-278618	240-278366	05/12/2017 13:11	1	TAL CAN	KMG
P:3010A	240-79233-E-3-B		240-278348	240-278141	05/09/2017 14:00	1	TAL CAN	AJC
A:6010B	240-79233-E-3-B		240-278348	240-278141	05/11/2017 02:45	1	TAL CAN	KLC
P:7470A	240-79233-E-3-C		240-278381	240-278142	05/09/2017 14:00	1	TAL CAN	AJC
A:7470A	240-79233-E-3-C		240-278381	240-278142	05/10/2017 14:51	1	TAL CAN	DTN
A:1010A	240-79233-H-3		240-279063		05/16/2017 12:08	1	TAL CAN	TPH

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	MB 240-278854/7		240-278854		05/14/2017 19:42	1	TAL CAN	TJL1
P:5030C	MB 240-278855/7		240-278855		05/14/2017 19:42	1	TAL CAN	TJL1
A:8260C	MB 240-278854/7		240-278854		05/14/2017 19:42	1	TAL CAN	TJL1
A:8260C	MB 240-278855/7		240-278855		05/14/2017 19:42	1	TAL CAN	TJL1
P:3520C	MB 240-278366/21-A		240-278618	240-278366	05/10/2017 12:10	1	TAL CAN	cs
A:8082A	MB 240-278366/21-A		240-278618	240-278366	05/12/2017 08:17	1	TAL CAN	KMG
P:3010A	MB 240-278141/2-A		240-278348	240-278141	05/09/2017 14:00	1	TAL CAN	AJC
A:6010B	MB 240-278141/2-A		240-278348	240-278141	05/10/2017 14:07	1	TAL CAN	KLC
P:7470A	MB 240-278142/2-A		240-278381	240-278142	05/09/2017 14:00	1	TAL CAN	AJC
A:7470A	MB 240-278142/2-A		240-278381	240-278142	05/10/2017 14:13	1	TAL CAN	DTN

Lab ID: LB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	LB 240-278088/1-B		240-278348	240-278141	05/09/2017 14:00	1	TAL CAN	AJC
A:6010B	LB 240-278088/1-B		240-278348	240-278141	05/10/2017 13:53	1	TAL CAN	KLC
P:7470A	LB 240-278088/1-C		240-278381	240-278142	05/09/2017 14:00	1	TAL CAN	AJC
A:7470A	LB 240-278088/1-C		240-278381	240-278142	05/10/2017 14:11	1	TAL CAN	DTN

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Laboratory Chronicle

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	LCS 240-278854/4		240-278854		05/14/2017 18:32	1	TAL CAN	TJL1
P:5030C	LCS 240-278855/4		240-278855		05/14/2017 18:32	1	TAL CAN	TJL1
A:8260C	LCS 240-278854/4		240-278854		05/14/2017 18:32	1	TAL CAN	TJL1
A:8260C	LCS 240-278855/4		240-278855		05/14/2017 18:32	1	TAL CAN	TJL1
P:3520C	LCS 240-278366/22-A		240-278618	240-278366	05/10/2017 12:10	1	TAL CAN	cs
A:8082A	LCS 240-278366/22-A		240-278618	240-278366	05/12/2017 08:36	1	TAL CAN	KMG
P:3010A	LCS 240-278141/3-A		240-278348	240-278141	05/09/2017 14:00	1	TAL CAN	AJC
A:6010B	LCS 240-278141/3-A		240-278348	240-278141	05/10/2017 14:11	1	TAL CAN	KLC
P:7470A	LCS 240-278142/3-A		240-278381	240-278142	05/09/2017 14:00	1	TAL CAN	AJC
A:7470A	LCS 240-278142/3-A		240-278381	240-278142	05/10/2017 14:15	1	TAL CAN	DTN
A:1010A	LCS 240-279063/1		240-279063		05/16/2017 06:30	1	TAL CAN	TPH

Lab ID: MS **Client ID: N/A**

Sample Date/Time: 05/09/2017 07:50 Received Date/Time: 05/10/2017 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	240-79341-F-1 MS		240-278854		05/15/2017 04:12	2	TAL CAN	TJL1
A:8260C	240-79341-F-1 MS		240-278854		05/15/2017 04:12	2	TAL CAN	TJL1
P:3520C	240-79239-X-1-A MS		240-278618	240-278366	05/10/2017 12:10	1	TAL CAN	cs
A:8082A	240-79239-X-1-A MS		240-278618	240-278366	05/12/2017 10:08	1	TAL CAN	KMG
P:3010A	240-79231-B-1-D MS ^5		240-278348	240-278141	05/09/2017 14:00	5	TAL CAN	AJC
A:6010B	240-79231-B-1-D MS ^5		240-278348	240-278141	05/10/2017 14:29	5	TAL CAN	KLC
P:7470A	240-79231-B-1-G MS		240-278381	240-278142	05/09/2017 14:00	1	TAL CAN	AJC
A:7470A	240-79231-B-1-G MS		240-278381	240-278142	05/10/2017 14:20	1	TAL CAN	DTN

Client: Tetra Tech, Inc. Job Number: 240-79233-1

Laboratory Chronicle

Lab ID: MSD **Client ID: N/A**

Sample Date/Time: 05/09/2017 07:50 Received Date/Time: 05/10/2017 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	240-79341-F-1 MSD		240-278854		05/15/2017 04:34	2	TAL CAN	TJL1
A:8260C	240-79341-F-1 MSD		240-278854		05/15/2017 04:34	2	TAL CAN	TJL1
P:3520C	240-79239-V-1-A MSD		240-278618	240-278366	05/10/2017 12:10	1	TAL CAN	cs
A:8082A	240-79239-V-1-A MSD		240-278618	240-278366	05/12/2017 10:26	1	TAL CAN	KMG
P:3010A	240-79231-B-1-E MSD ^5		240-278348	240-278141	05/09/2017 14:00	5	TAL CAN	AJC
A:6010B	240-79231-B-1-E MSD ^5		240-278348	240-278141	05/10/2017 14:34	5	TAL CAN	KLC
P:7470A	240-79231-B-1-H MSD		240-278381	240-278142	05/09/2017 14:00	1	TAL CAN	AJC
A:7470A	240-79231-B-1-H MSD		240-278381	240-278142	05/10/2017 14:26	1	TAL CAN	DTN

Lab ID: DU **Client ID: N/A**

Sample Date/Time: 05/11/2017 15:30 Received Date/Time: 05/12/2017 08:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:1010A	240-79458-C-3 DU		240-279063		05/16/2017 10:24	1	TAL CAN	TPH

Lab ID: SD **Client ID: N/A**

Sample Date/Time: 05/04/2017 09:20 Received Date/Time: 05/06/2017 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	240-79231-B-1-C SD ^5		240-278348	240-278141	05/09/2017 14:00	5	TAL CAN	AJC
A:6010B	240-79231-B-1-C SD ^5		240-278348	240-278141	05/10/2017 14:20	5	TAL CAN	KLC

Lab References:
TAL CAN = TestAmerica Canton

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ex10PPMSPK_00026	10/27/17	03/08/17	MEOH, Lot 0000127999	1000 mL	ex1016/1260st_00006	10 mL	Aroclor-1016	10 ug/mL
							Aroclor-1260	10 ug/mL
.ex1016/1260st_00006	08/31/22		Restek, Lot A0119290		(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
ex2/.2SURRW_00084	06/30/18	04/24/17	MEOH, Lot 0000127999	2000 mL	exPESTSURRstd_00005	2 mL	DCB Decachlorobiphenyl	0.2 ug/mL
							Tetrachloro-m-xylene	0.2 ug/mL
.exPESTSURRstd_00005	12/30/22		Restek, Lot A0121594		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
EXpH(0-14)_00017	12/12/21		Merck, Lot HC689794		(Purchased Reagent)		pH at time of analysis	1 No Unit
EXTCLPBUFF1_01143	05/08/17	05/07/17	DIWATER, Lot 05072017	48 L	EXTCLP5MNAOH_00033	751.49 g	Sodium Hydroxide	0.313121 %
					EXTCLPACETIC_00024	273.6 mL	Acetic acid	0.57 %
.EXTCLP5MNAOH_00033	04/22/18	12/12/16	DIWATER, Lot 12122016	3 L	EXTCLPNAOH_00025	600 g	Sodium Hydroxide	200 mol/L
..EXTCLPNAOH_00025	04/22/18		Macron, Lot 0000146370		(Purchased Reagent)		Sodium Hydroxide	1 g/g
.EXTCLPACETIC_00024	11/10/20		Macron, Lot 00000130626		(Purchased Reagent)		Acetic acid	1 g/g
EXTCLPFILTERS_00032	12/12/21		Whatman, Lot 9752509		(Purchased Reagent)		Prep Analyte	100 Filter
EXTCLPHCLW_00054	03/27/19	04/03/17	DIWATER, Lot 04032017	2000 mL	MTTMHCL_00150	166 mL	Hydrogen Chloride	83 mol/L
.MTTMHCL_00150	03/27/19		JT Baker(Avantor), Lot 0000162118		(Purchased Reagent)		Hydrogen Chloride	100 %
K2S2O8_00059	07/25/17	03/22/17	DIWATER, Lot DIWATER	2.5 L	MTK2S208_00035	125 g	Potassium persulfate	0.05 g/g
.MTK2S208_00035	07/25/17		Macron, Lot 0000070212		(Purchased Reagent)		Potassium persulfate	1 g/g
MT1to1HCL_00070	09/16/17	03/16/17	DIWATER, Lot DIWATER	2500 mL	MTTMHCL_00148	1250 mL	Hydrogen Chloride	0.5 mL/mL
.MTTMHCL_00148	03/11/19		JT Baker(Avantor), Lot 0000162118		(Purchased Reagent)		Hydrogen Chloride	100 %
MT6500ICV_00037	06/13/17	04/25/17	DIWATER, Lot DIWATER	1000 mL	MTTRICV3_00008	6 mL	Barium	1500 ug/L
							Chromium	1500 ug/L
					MTTRICV5_00014	1.5 mL	Arsenic	375 ug/L
							Cadmium	375 ug/L
							Lead	375 ug/L
							Selenium	375 ug/L
					MTTRICVAG_00007	7.5 mL	Silver	750 ug/L
.MTTRICV3_00008	05/22/18		CPI, Lot 1099181		(Purchased Reagent)		Barium	250 mg/L
							Chromium	250 mg/L
.MTTRICV5_00014	05/21/18		CPI, Lot 1099109		(Purchased Reagent)		Arsenic	250 ug/mL
							Cadmium	250 ug/mL
							Lead	250 ug/mL
							Selenium	250 ug/mL
.MTTRICVAG_00007	02/26/18		CPI, Lot 1095561		(Purchased Reagent)		Silver	100 mg/L
MTAGSPIKEW_00070	06/09/17	04/26/17	DIWATER, Lot DIWATER	1000 mL	MTAG_00006	2.5 mL	Silver	2500 ug/L
					MTTMHNO3_00113	50 mL	Nitric acid	50000000 ug/L
.MTAG_00006	06/09/17		HIGH PURITY STANDARDS, Lot 1507504		(Purchased Reagent)		Silver	1000 ug/mL
.MTTMHNO3_00113	03/20/19		Macron/Avantor, Lot 0000148204		(Purchased Reagent)		Nitric acid	100 %
MTH2S04_00042	04/06/19		Macron, Lot 0000161554		(Purchased Reagent)		Sulfuric acid	100 %
MTHGCALW_01499	05/09/17	05/09/17	DIWATER, Lot DIWATER	200 mL	MTHGCAL_00030	2 mL	Mercury	100 ug/L
					MTTMHNO3_00117	0.25 mL	Nitric acid	1250000 ug/L
.MTHGCAL_00030	02/06/18		INORGANIC VENTURES, Lot K2-HG650192		(Purchased Reagent)		Mercury	10 ug/mL
.MTTMHNO3_00117	04/27/19		Macron/Avantor, Lot 0000162025		(Purchased Reagent)		Nitric acid	100 %

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MTHGCALW_01500	05/10/17	05/10/17	DIWATER, Lot DIWATER	200 mL	MTHGCAL_00030	2 mL	Mercury	100 ug/L
					MTTMHNO3_00117	0.25 mL	Nitric acid	1250000 ug/L
.MTHGCAL_00030	02/06/18	INORGANIC VENTURES, Lot K2-HG650192			(Purchased Reagent)		Mercury	10 ug/mL
.MTTMHNO3_00117	04/27/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTHgICV_00001_00172	05/10/17	05/10/17	DIWATER, Lot DIWATER	100 mL	LLHg-ICV_00003	1 mL	Mercury	0.1 ug/mL
					MTTMHNO3_00117	0.125 mL	Nitric acid	1250 ug/mL
.LLHg-ICV_00003	04/18/18	Elemental Scientific, Lot 1701941			(Purchased Reagent)		Mercury	10 ug/mL
.MTTMHNO3_00117	04/27/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTICP1_00063	09/29/17	04/26/17	DIWATER, Lot DI WATER	1000 mL	MTICPSPIKE1A_00011	50 mL	Al	100000 ug/L
							Arsenic	100000 ug/L
							B	50000 ug/L
							Barium	100000 ug/L
							Be	2500 ug/L
							Cadmium	2500 ug/L
							Chromium	10000 ug/L
							Co	25000 ug/L
							Cu	12500 ug/L
							Fe	50000 ug/L
							Lead	25000 ug/L
							Mn	25000 ug/L
							Ni	25000 ug/L
							Selenium	100000 ug/L
							Tl	100000 ug/L
							V	25000 ug/L
							Zn	25000 ug/L
					MTICPSPIKEB_00010	50 mL	Mo	50000 ug/L
							Sb	25000 ug/L
							Sn	100000 ug/L
							Ti	50000 ug/L
					MTICPSpikeOdd_00007	50 mL	Li	50000 ug/L
							Si	50000 ug/L
							SiO2	107000 ug/L
							Sr	50000 ug/L
					MTTMHNO3_00107	50 mL	Nitric acid	50000000 ug/L
.MTICPSPIKE1A_00011	09/29/17	High Purity Standards, Lot 1626724			(Purchased Reagent)		Al	2000 ug/mL
							Arsenic	2000 ug/mL
							B	1000 ug/mL
							Barium	2000 ug/mL
							Be	50 ug/mL
							Cadmium	50 ug/mL
							Chromium	200 ug/mL
							Co	500 ug/mL
							Cu	250 ug/mL
							Fe	1000 ug/mL
							Lead	500 ug/mL
							Mn	500 ug/mL
							Ni	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Selenium	2000 ug/mL
							Tl	2000 ug/mL
							V	500 ug/mL
							Zn	500 ug/mL
.MTICPSPIKEB_00010	09/29/17	High Purity Standards, Lot 1626731			(Purchased Reagent)		Mo	1000 ug/mL
							Sb	500 ug/mL
							Sn	2000 ug/mL
							Ti	1000 ug/mL
.MTICPSpikeOdd_00007	09/29/17	High Purity Standards, Lot 1626736			(Purchased Reagent)		Li	1000 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sr	1000 ug/mL
.MTTMHNO3_00107	01/11/19	Macron/Avantor, Lot 0000148204			(Purchased Reagent)		Nitric acid	100 %
MTICP2A_00071	09/30/17	04/26/17	DIWATER, Lot NONE	1000 mL	MTTMHNO3_00113	50 mL	Nitric acid	50000 mg/L
					MTTRCAL2_00016	250 mL	Ca	2500 mg/L
							K	2500 mg/L
							Mg	2500 mg/L
							Na	2500 mg/L
.MTTMHNO3_00113	03/20/19	Macron/Avantor, Lot 0000148204			(Purchased Reagent)		Nitric acid	100 %
.MTTRCAL2_00016	01/06/18	HIGH PURITY STANDARDS, Lot 1625030			(Purchased Reagent)		Ca	10000 ug/mL
							K	10000 ug/mL
							Mg	10000 ug/mL
							Na	10000 ug/mL
MTICPCCV_00097	11/01/17	05/01/17	DIWATER, Lot DIWATER	2000 mL	MTICPCCV1_00017	200 mL	Arsenic	500 ug/L
							Barium	2000 ug/L
							Cadmium	500 ug/L
							Chromium	2000 ug/L
							Lead	500 ug/L
							Selenium	500 ug/L
					MTICPCCV2_00017	200 mL	Silver	1000 ug/L
.MTICPCCV1_00017	03/14/18	INORGANIC VENTURES, Lot K2-MEB632080			(Purchased Reagent)		Arsenic	5000 ug/L
							Barium	20000 ug/L
							Cadmium	5000 ug/L
							Chromium	20000 ug/L
							Lead	5000 ug/L
							Selenium	5000 ug/L
.MTICPCCV2_00017	03/14/18	INORGANIC VENTURES, Lot K2-MEB632081			(Purchased Reagent)		Silver	10000 ug/L
MTICPICSABW_00014	10/11/17	04/11/17	DIWATER, Lot DIWATER	1000 mL	MTICPICSAB1_00006	100 mL	Al	500000 ug/L
							Arsenic	1000 ug/L
							B	500 ug/L
							Barium	500 ug/L
							Be	500 ug/L
							Ca	500000 ug/L
							Cadmium	1000 ug/L
							Chromium	500 ug/L
							Co	500 ug/L
							Cu	500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fe	200000 ug/L
							K	10000 ug/L
							Lead	1000 ug/L
							Li	500 ug/L
							Mg	500000 ug/L
							Mn	500 ug/L
							Na	10000 ug/L
							Ni	1000 ug/L
							Selenium	1000 ug/L
							Sr	1500 ug/L
							Tl	1000 ug/L
							V	500 ug/L
							Zn	1000 ug/L
					MTICPICSAB2_00006	100 mL	Mo	1000 ug/L
							Sb	1000 ug/L
							Si	10000 ug/L
							Silver	1000 ug/L
							Sn	500 ug/L
							Ti	500 ug/L
.MTICPICSAB1_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653538			(Purchased Reagent)		Al	5000000 ug/L
							Arsenic	10000 ug/L
							B	5000 ug/L
							Barium	5000 ug/L
							Be	5000 ug/L
							Ca	5000000 ug/L
							Cadmium	10000 ug/L
							Chromium	5000 ug/L
							Co	5000 ug/L
							Cu	5000 ug/L
							Fe	2000000 ug/L
							K	100000 ug/L
							Lead	10000 ug/L
							Li	5000 ug/L
							Mg	5000000 ug/L
							Mn	5000 ug/L
							Na	100000 ug/L
							Ni	10000 ug/L
							Selenium	10000 ug/L
							Sr	15000 ug/L
							Tl	10000 ug/L
							V	5000 ug/L
							Zn	10000 ug/L
.MTICPICSAB2_00006	12/08/17	INORGANIC VENTURES, Lot K2-MEB653539			(Purchased Reagent)		Mo	10000 ug/L
							Sb	10000 ug/L
							Si	100000 ug/L
							Silver	10000 ug/L
							Sn	5000 ug/L
							Ti	5000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MTKMN04W_00130	08/07/17	04/28/17	DIWATER, Lot DIWATER	2.5 L	MTKMN04_00035	125 g	Potassium Permanganate	50000 mg/L
.MTKMN04_00035	08/07/17	Fisher, Lot 156656			(Purchased Reagent)		Potassium Permanganate	1 g/g
MTNONRCRA+ODD_00008	02/28/18	High-Purity Standards, Lot 1705427			(Purchased Reagent)		Al	100 ug/mL
							B	50 ug/mL
							Be	2.5 ug/mL
							Co	25 ug/mL
							Cu	12.5 ug/mL
							Fe	50 ug/mL
							Li	50 ug/mL
							Mn	25 ug/mL
							Mo	50 ug/mL
							Ni	25 ug/mL
							Sb	25 ug/mL
							Si	50 ug/mL
							Sn	100 ug/mL
							Sr	50 ug/mL
							Ti	50 ug/mL
							Tl	100 ug/mL
							V	25 ug/mL
							Zn	25 ug/mL
MTRCRA_00012	10/28/17	High Purity Standards, Lot 1630101			(Purchased Reagent)		Arsenic	500 mg/L
							Barium	5000 mg/L
							Cadmium	100 mg/L
							Chromium	500 mg/L
							Lead	500 mg/L
							Selenium	100 mg/L
							Silver	100 mg/L
MTTMHNO3_00117	04/27/19	Macron/Avantor, Lot 0000162025			(Purchased Reagent)		Nitric acid	100 %
MTTRCRIC_00047	11/05/17	05/05/17	DIWATER, Lot DIWATER	1000 mL	MTTRCRI6010C_00015	50 mL	Arsenic	15 ug/L
							Barium	200 ug/L
							Cadmium	5 ug/L
							Chromium	10 ug/L
							Lead	10 ug/L
							Selenium	20 ug/L
							Silver	10 ug/L
.MTTRCRI6010C_00015	01/17/18	Inorganic Ventures, Lot K2-MEB653408			(Purchased Reagent)		Arsenic	300 ug/L
							Barium	4000 ug/L
							Cadmium	100 ug/L
							Chromium	200 ug/L
							Lead	200 ug/L
							Selenium	400 ug/L
							Silver	200 ug/L
MTTRICSAW_00034	09/13/17	03/13/17	DIWATER, Lot DIWATER	1000 mL	MTTRICSA_00014	100 mL	Al	500000 ug/L
							Ca	500000 ug/L
							Fe	200000 ug/L
							Mg	500000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MTTRICSA_00014	04/02/18	INORGANIC VENTURES, Lot J2-MEB572053			(Purchased Reagent)		Al	5000 ug/mL
							Ca	5000 ug/mL
							Fe	2000 ug/mL
							Mg	5000 ug/mL
SG1221ICV@1.0_00017	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1221ICV@1.0_00017	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SG1221ICV@100_00005	0.1 mL	Aroclor-1221	1 ug/mL
.SG1221ICV@100_00005	03/27/18	03/27/17	HEXANE, Lot 0000132636	10 mL	SG 1221 ICV_00009	1 mL	Aroclor-1221	100 ug/mL
..SG 1221 ICV_00009	06/30/19	restek, Lot a094157			(Purchased Reagent)		Aroclor-1221	1000 ug/mL
SG1232ICV@1.0_00019	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1232ICV@1.0_00019	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SG1232ICV@100_00005	0.1 mL	Aroclor-1232	1 ug/mL
.SG1232ICV@100_00005	11/21/17	11/21/16	HEXANE, Lot 0000146278	10 mL	SG 1232 ICV_00009	1 mL	Aroclor-1232	100 ug/mL
..SG 1232 ICV_00009	01/31/19	ULTRA SCIENTIFIC, Lot CG-4471			(Purchased Reagent)		Aroclor-1232	1000 ug/mL
SG1242ICV@1.0_00018	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1242ICV@1.0_00018	11/04/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SG1242ICV@100_00004	0.1 mL	Aroclor-1242	1 ug/mL
.SG1242ICV@100_00004	11/21/17	11/21/16	HEXANE, Lot 0000146278	10 mL	SG 1242 ICV_00008	1 mL	Aroclor-1242	100 ug/mL
..SG 1242 ICV_00008	01/31/20	ULTRA SCIENTIFIC, Lot CH-4123			(Purchased Reagent)		Aroclor-1242	1000 ug/mL
SG1248@.05ppm_00022	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG1248@10ppm_00010	0.25 mL	PCB-1248 Peak 1	0.05 ug/mL
							PCB-1248 Peak 2	0.05 ug/mL
							PCB-1248 Peak 3	0.05 ug/mL
							PCB-1248 Peak 4	0.05 ug/mL
							PCB-1248 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21	Restek, Lot A0110957			(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20	Restek, Lot A0124315			(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.1PPM_00024	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG1248@10ppm_00010	0.5 mL	PCB-1248 Peak 1	0.1 ug/mL
							PCB-1248 Peak 2	0.1 ug/mL
							PCB-1248 Peak 3	0.1 ug/mL
							PCB-1248 Peak 4	0.1 ug/mL
							PCB-1248 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.2ppm_00020	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG1248@10ppm_00010	1 mL	PCB-1248 Peak 1	0.2 ug/mL
							PCB-1248 Peak 2	0.2 ug/mL
							PCB-1248 Peak 3	0.2 ug/mL
							PCB-1248 Peak 4	0.2 ug/mL
							PCB-1248 Peak 5	0.2 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.5ppm_00028	06/17/17	04/17/17	HEXANE, Lot 0000132636	100 mL	SG1248@10ppm_00010	5 mL	PCB-1248 Peak 1	0.5 ug/mL
							PCB-1248 Peak 2	0.5 ug/mL
							PCB-1248 Peak 3	0.5 ug/mL
							PCB-1248 Peak 4	0.5 ug/mL
							PCB-1248 Peak 5	0.5 ug/mL
					SGPCBIS STOCk_00007	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00007	06/17/17	06/17/16	HEXANE, Lot 0000135581	50 mL	ISTD_00003	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..ISTD_00003	11/30/18		Restek, Lot A0113173		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.5ppm_00029	11/02/17	05/02/17	HEXANE, Lot 0000160062	100 mL	SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@0.5ppm_00029	11/02/17	05/02/17	HEXANE, Lot 0000160062	100 mL	SG1248@10ppm_00010	5 mL	Aroclor-1248	0.5 ug/mL
							PCB-1248 Peak 1	0.5 ug/mL
							PCB-1248 Peak 2	0.5 ug/mL
							PCB-1248 Peak 3	0.5 ug/mL
							PCB-1248 Peak 4	0.5 ug/mL
							PCB-1248 Peak 5	0.5 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	Aroclor-1248	10 ug/mL
							PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		Aroclor-1248	1000 ug/mL
							PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
SG1248@1.0ppm_00020	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG1248@10ppm_00010	5 mL	PCB-1248 Peak 1	1 ug/mL
							PCB-1248 Peak 2	1 ug/mL
							PCB-1248 Peak 3	1 ug/mL
							PCB-1248 Peak 4	1 ug/mL
							PCB-1248 Peak 5	1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248@1.5ppm_00001	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG1248@10ppm_00010	7.5 mL	PCB-1248 Peak 1	1.5 ug/mL
							PCB-1248 Peak 2	1.5 ug/mL
							PCB-1248 Peak 3	1.5 ug/mL
							PCB-1248 Peak 4	1.5 ug/mL
							PCB-1248 Peak 5	1.5 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG1248@10ppm_00010	11/29/17	11/29/16	Hexane, Lot 0000146278	100 mL	SG1248_00007	1 mL	PCB-1248 Peak 1	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1248 Peak 2	10 ug/mL
							PCB-1248 Peak 3	10 ug/mL
							PCB-1248 Peak 4	10 ug/mL
							PCB-1248 Peak 5	10 ug/mL
..SG1248_00007	02/28/21		Restek, Lot A0110957		(Purchased Reagent)		PCB-1248 Peak 1	1000 ug/mL
							PCB-1248 Peak 2	1000 ug/mL
							PCB-1248 Peak 3	1000 ug/mL
							PCB-1248 Peak 4	1000 ug/mL
							PCB-1248 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248ICV@1.0_00018	09/15/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1248ICV@1.0_00018	09/15/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SG1248ICV@100_00004	0.1 mL	Aroclor-1248	1 ug/mL
.SG1248ICV@100_00004	09/15/17	09/15/16	HEXANE, Lot 0000140376	10 mL	SG 1248 ICV_00008	1 mL	Aroclor-1248	100 ug/mL
..SG 1248 ICV_00008	02/28/21		restek, Lot a0107321		(Purchased Reagent)		Aroclor-1248	1000 ug/mL
SG1254ICV@1.0_00018	09/23/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1254ICV@1.0_00018	09/23/17	05/04/17	HEXANE, Lot 0000160062	10 mL	SG1254ICV@100_00005	0.1 mL	Aroclor-1254	1 ug/mL
.SG1254ICV@100_00005	09/23/17	09/23/16	HEXANE, Lot 000040376	10 mL	SGPCB1254_00009	1 mL	Aroclor-1254	100 ug/mL
..SGPCB1254_00009	10/31/21		ULTRA SCIENTIFIC, Lot CK-3221		(Purchased Reagent)		Aroclor-1254	1000 ug/mL
SG1262ICV@1.0_00020	10/06/17	05/03/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1268ICV_00027	09/07/17	05/03/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1660@.05PPM_00020	11/03/17	05/03/17	HEXANE, Lot 0000160062	100 mL	SG1016/1260_00022	0.5 mL	PCB-1016 Peak 1	0.05 ug/mL
							PCB-1016 Peak 2	0.05 ug/mL
							PCB-1016 Peak 3	0.05 ug/mL
							PCB-1016 Peak 4	0.05 ug/mL
							PCB-1016 Peak 5	0.05 ug/mL
							PCB-1260 Peak 1	0.05 ug/mL
							PCB-1260 Peak 2	0.05 ug/mL
							PCB-1260 Peak 3	0.05 ug/mL
							PCB-1260 Peak 4	0.05 ug/mL
							PCB-1260 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	0.125 mL	DCB Decachlorobiphenyl	0.0025 ug/mL
							Tetrachloro-m-xylene	0.0025 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.2ppm_00022	11/03/17	05/03/17	HEXANE, Lot 00000160062	50 mL	SG1016/1260_00022	1 mL	PCB-1016 Peak 1	0.2 ug/mL
							PCB-1016 Peak 2	0.2 ug/mL
							PCB-1016 Peak 3	0.2 ug/mL
							PCB-1016 Peak 4	0.2 ug/mL
							PCB-1016 Peak 5	0.2 ug/mL
							PCB-1260 Peak 1	0.2 ug/mL
							PCB-1260 Peak 2	0.2 ug/mL
							PCB-1260 Peak 3	0.2 ug/mL
							PCB-1260 Peak 4	0.2 ug/mL
							PCB-1260 Peak 5	0.2 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	0.25 mL	DCB Decachlorobiphenyl	0.01 ug/mL
							Tetrachloro-m-xylene	0.01 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.5PPM_00072	11/03/17	05/03/17	HEXANE, Lot 0000160062	100 mL	SG1016/1260_00022	5 mL	PCB-1016 Peak 1	0.5 ug/mL
							PCB-1016 Peak 2	0.5 ug/mL
							PCB-1016 Peak 3	0.5 ug/mL
							PCB-1016 Peak 4	0.5 ug/mL
							PCB-1016 Peak 5	0.5 ug/mL
							PCB-1260 Peak 1	0.5 ug/mL
							PCB-1260 Peak 2	0.5 ug/mL
							PCB-1260 Peak 3	0.5 ug/mL
							PCB-1260 Peak 4	0.5 ug/mL
							PCB-1260 Peak 5	0.5 ug/mL
					SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	1.25 mL	DCB Decachlorobiphenyl	0.025 ug/mL
							Tetrachloro-m-xylene	0.025 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@0.5PPM_00072	11/03/17	05/03/17	HEXANE, Lot 0000160062	100 mL	SG1016/1260_00022	5 mL	1260 Res 1	0.5 ug/mL
							1260 Res 2	0.5 ug/mL
							1260 Res 3	0.5 ug/mL
							Aroclor-1016	0.5 ug/mL
							Aroclor-1260	0.5 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	1260 Res 1	10 ug/mL
							1260 Res 2	10 ug/mL
							1260 Res 3	10 ug/mL
							Aroclor-1016	10 ug/mL
							Aroclor-1260	10 ug/mL
..SG1016/1260MX_00011	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		1260 Res 1	1000 ug/mL
							1260 Res 2	1000 ug/mL
							1260 Res 3	1000 ug/mL
							Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
SG1660@1.0PPM_00023	11/03/17	05/03/17	HEXANE, Lot 0000160062	50 mL	SG1016/1260_00022	5 mL	PCB-1016 Peak 1	1 ug/mL
							PCB-1016 Peak 2	1 ug/mL
							PCB-1016 Peak 3	1 ug/mL
							PCB-1016 Peak 4	1 ug/mL
							PCB-1016 Peak 5	1 ug/mL
							PCB-1260 Peak 1	1 ug/mL
							PCB-1260 Peak 2	1 ug/mL
							PCB-1260 Peak 3	1 ug/mL
							PCB-1260 Peak 4	1 ug/mL
							PCB-1260 Peak 5	1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	1.25 mL	DCB Decachlorobiphenyl	0.05 ug/mL
							Tetrachloro-m-xylene	0.05 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660@1.5PPM_00001	11/03/17	05/03/17	HEXANE, Lot 0000160062	50 mL	SG1016/1260_00022	7.5 mL	PCB-1016 Peak 1	1.5 ug/mL
							PCB-1016 Peak 2	1.5 ug/mL
							PCB-1016 Peak 3	1.5 ug/mL
							PCB-1016 Peak 4	1.5 ug/mL
							PCB-1016 Peak 5	1.5 ug/mL
							PCB-1260 Peak 1	1.5 ug/mL
							PCB-1260 Peak 2	1.5 ug/mL
							PCB-1260 Peak 3	1.5 ug/mL
							PCB-1260 Peak 4	1.5 ug/mL
							PCB-1260 Peak 5	1.5 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	2.5 mL	DCB Decachlorobiphenyl	0.1 ug/mL
							Tetrachloro-m-xylene	0.1 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660ICV@1.0_00026	11/03/17	05/03/17	HEXANE, Lot 0000160062	10 mL	SGPCBIS STOCk_00008	0.05 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG1660ICV@1.0_00026	11/03/17	05/03/17	HEXANE, Lot 0000160062	10 mL	SG1660ICV@100_00010	0.1 mL	Aroclor-1016	1 ug/mL
							Aroclor-1260	1 ug/mL
					SGPCGSURRSTK_00008	0.25 mL	DCB Decachlorobiphenyl	0.05 ug/mL
							Tetrachloro-m-xylene	0.05 ug/mL
.SG1660ICV@100_00010	03/07/18	03/08/17	HEXANE, Lot 0000132636	10 mL	SG 1660 ICV_00014	1 mL	Aroclor-1016	100 ug/mL
							Aroclor-1260	100 ug/mL
..SG 1660 ICV_00014	01/31/22		restek, Lot a0114674		(Purchased Reagent)		Aroclor-1016	1000 ug/mL
							Aroclor-1260	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG1660STD@0.1_00020	11/03/17	05/03/17	HEXANE, Lot 0000160062	50 mL	SG1016/1260_00022	0.5 mL	PCB-1016 Peak 1	0.1 ug/mL
							PCB-1016 Peak 2	0.1 ug/mL
							PCB-1016 Peak 3	0.1 ug/mL
							PCB-1016 Peak 4	0.1 ug/mL
							PCB-1016 Peak 5	0.1 ug/mL
							PCB-1260 Peak 1	0.1 ug/mL
							PCB-1260 Peak 2	0.1 ug/mL
							PCB-1260 Peak 3	0.1 ug/mL
							PCB-1260 Peak 4	0.1 ug/mL
							PCB-1260 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
					SGPCGSURRSTK_00008	0.125 mL	DCB Decachlorobiphenyl	0.005 ug/mL
							Tetrachloro-m-xylene	0.005 ug/mL
.SG1016/1260_00022	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG1016/1260MX_00011	1 mL	PCB-1016 Peak 1	10 ug/mL
							PCB-1016 Peak 2	10 ug/mL
							PCB-1016 Peak 3	10 ug/mL
							PCB-1016 Peak 4	10 ug/mL
							PCB-1016 Peak 5	10 ug/mL
							PCB-1260 Peak 1	10 ug/mL
							PCB-1260 Peak 2	10 ug/mL
							PCB-1260 Peak 3	10 ug/mL
							PCB-1260 Peak 4	10 ug/mL
							PCB-1260 Peak 5	10 ug/mL
..SG1016/1260MX_00011	06/30/21		Restek, Lot A0109664		(Purchased Reagent)		PCB-1016 Peak 1	1000 ug/mL
							PCB-1016 Peak 2	1000 ug/mL
							PCB-1016 Peak 3	1000 ug/mL
							PCB-1016 Peak 4	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1016 Peak 5	1000 ug/mL
							PCB-1260 Peak 1	1000 ug/mL
							PCB-1260 Peak 2	1000 ug/mL
							PCB-1260 Peak 3	1000 ug/mL
							PCB-1260 Peak 4	1000 ug/mL
							PCB-1260 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
.SGPCGSURRSTK_00008	12/08/17	12/08/16	HEXANE, Lot 0000132636	100 mL	SGPESTSURR_00010	1 mL	DCB Decachlorobiphenyl	2 ug/mL
							Tetrachloro-m-xylene	2 ug/mL
..SGPESTSURR_00010	06/22/22		Restek, Lot A0117947		(Purchased Reagent)		DCB Decachlorobiphenyl	200 ug/mL
							Tetrachloro-m-xylene	200 ug/mL
SG2154@0.05PP_00016	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG2154@10ppm_00011	0.25 mL	PCB-1221 Peak 1	0.05 ug/mL
							PCB-1221 Peak 2	0.05 ug/mL
							PCB-1221 Peak 3	0.05 ug/mL
							PCB-1254 Peak 1	0.05 ug/mL
							PCB-1254 Peak 2	0.05 ug/mL
							PCB-1254 Peak 3	0.05 ug/mL
							PCB-1254 Peak 4	0.05 ug/mL
							PCB-1254 Peak 5	0.05 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@0.2PPM_00017	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG2154@10ppm_00011	1 mL	PCB-1221 Peak 1	0.2 ug/mL
							PCB-1221 Peak 2	0.2 ug/mL
							PCB-1221 Peak 3	0.2 ug/mL
							PCB-1254 Peak 1	0.2 ug/mL
							PCB-1254 Peak 2	0.2 ug/mL
							PCB-1254 Peak 3	0.2 ug/mL
							PCB-1254 Peak 4	0.2 ug/mL
							PCB-1254 Peak 5	0.2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@0.5PPM_00032	11/02/17	05/02/17	HEXANE, Lot 0000160062	100 mL	SG2154@10ppm_00011	5 mL	PCB-1221 Peak 1	0.5 ug/mL
							PCB-1221 Peak 2	0.5 ug/mL
							PCB-1221 Peak 3	0.5 ug/mL
							PCB-1254 Peak 1	0.5 ug/mL
							PCB-1254 Peak 2	0.5 ug/mL
							PCB-1254 Peak 3	0.5 ug/mL
							PCB-1254 Peak 4	0.5 ug/mL
							PCB-1254 Peak 5	0.5 ug/mL
					SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@0.5PPM_00032	11/02/17	05/02/17	HEXANE, Lot 0000160062	100 mL	SG2154@10ppm_00011	5 mL	Aroclor-1221	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Aroclor-1254	0.5 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	Aroclor-1221	10 ug/mL
							Aroclor-1254	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		Aroclor-1221	1000 ug/mL
							Aroclor-1254	1000 ug/mL
SG2154@1.0PPM_00021	11/02/17	05/02/17	HEXANE, Lot 0000160026	50 mL	SG2154@10ppm_00011	5 mL	PCB-1221 Peak 1	1 ug/mL
							PCB-1221 Peak 2	1 ug/mL
							PCB-1221 Peak 3	1 ug/mL
							PCB-1254 Peak 1	1 ug/mL
							PCB-1254 Peak 2	1 ug/mL
							PCB-1254 Peak 3	1 ug/mL
							PCB-1254 Peak 4	1 ug/mL
							PCB-1254 Peak 5	1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@1.5PPM_00001	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG2154@10ppm_00011	7.5 mL	PCB-1221 Peak 1	1.5 ug/mL
							PCB-1221 Peak 2	1.5 ug/mL
							PCB-1221 Peak 3	1.5 ug/mL
							PCB-1254 Peak 1	1.5 ug/mL
							PCB-1254 Peak 2	1.5 ug/mL
							PCB-1254 Peak 3	1.5 ug/mL
							PCB-1254 Peak 4	1.5 ug/mL
							PCB-1254 Peak 5	1.5 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG2154@O.1PPM_00018	11/02/17	05/02/17	HEXANE, Lot 0000160062	50 mL	SG2154@10ppm_00011	0.5 mL	PCB-1221 Peak 1	0.1 ug/mL
							PCB-1221 Peak 2	0.1 ug/mL
							PCB-1221 Peak 3	0.1 ug/mL
							PCB-1254 Peak 1	0.1 ug/mL
							PCB-1254 Peak 2	0.1 ug/mL
							PCB-1254 Peak 3	0.1 ug/mL
							PCB-1254 Peak 4	0.1 ug/mL
							PCB-1254 Peak 5	0.1 ug/mL
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	0.05 ug/mL
.SG2154@10ppm_00011	12/06/17	12/06/16	HEXANE, Lot 0000132636	100 mL	SG1221/1254_00003	1 mL	PCB-1221 Peak 1	10 ug/mL
							PCB-1221 Peak 2	10 ug/mL
							PCB-1221 Peak 3	10 ug/mL
							PCB-1254 Peak 1	10 ug/mL
							PCB-1254 Peak 2	10 ug/mL
							PCB-1254 Peak 3	10 ug/mL
							PCB-1254 Peak 4	10 ug/mL
							PCB-1254 Peak 5	10 ug/mL
..SG1221/1254_00003	07/31/21		restek, Lot a0110124		(Purchased Reagent)		PCB-1221 Peak 1	1000 ug/mL
							PCB-1221 Peak 2	1000 ug/mL
							PCB-1221 Peak 3	1000 ug/mL
							PCB-1254 Peak 1	1000 ug/mL
							PCB-1254 Peak 2	1000 ug/mL
							PCB-1254 Peak 3	1000 ug/mL
							PCB-1254 Peak 4	1000 ug/mL
							PCB-1254 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@.05PPM_00009	10/26/17	04/26/17	HEXANE, Lot 0000160062	50 mL	SG32/6210PPM_00006	0.25 mL	PCB-1232 Peak 1	50 ug/L
							PCB-1232 Peak 2	50 ug/L
							PCB-1232 Peak 3	50 ug/L
							PCB-1232 Peak 4	50 ug/L
							PCB-1232 Peak 5	50 ug/L
							PCB-1262 Peak 1	50 ug/L
							PCB-1262 Peak 2	50 ug/L
							PCB-1262 Peak 3	50 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1262 Peak 4	50 ug/L
							PCB-1262 Peak 5	50 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@.2PPM_00012	10/26/17	04/26/17	HEXANE, Lot 0000160062	50 mL	SG32/6210PPM_00006	1 mL	PCB-1232 Peak 1	200 ug/L
							PCB-1232 Peak 2	200 ug/L
							PCB-1232 Peak 3	200 ug/L
							PCB-1232 Peak 4	200 ug/L
							PCB-1232 Peak 5	200 ug/L
							PCB-1262 Peak 1	200 ug/L
							PCB-1262 Peak 2	200 ug/L
							PCB-1262 Peak 3	200 ug/L
							PCB-1262 Peak 4	200 ug/L
							PCB-1262 Peak 5	200 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.1PPM_00010	10/26/17	04/26/17	HEXANE, Lot 0000160062	50 mL	SG32/6210PPM_00006	0.5 mL	PCB-1232 Peak 1	100 ug/L
							PCB-1232 Peak 2	100 ug/L
							PCB-1232 Peak 3	100 ug/L
							PCB-1232 Peak 4	100 ug/L
							PCB-1232 Peak 5	100 ug/L
							PCB-1262 Peak 1	100 ug/L
							PCB-1262 Peak 2	100 ug/L
							PCB-1262 Peak 3	100 ug/L
							PCB-1262 Peak 4	100 ug/L
							PCB-1262 Peak 5	100 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.5PPM_00019	10/25/17	04/26/17	HEXANE, Lot 0000160062	100 mL	SG32/6210PPM_00006	5 mL	PCB-1232 Peak 1	500 ug/L
							PCB-1232 Peak 2	500 ug/L
							PCB-1232 Peak 3	500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1232 Peak 4	500 ug/L
							PCB-1232 Peak 5	500 ug/L
							PCB-1262 Peak 1	500 ug/L
							PCB-1262 Peak 2	500 ug/L
							PCB-1262 Peak 3	500 ug/L
							PCB-1262 Peak 4	500 ug/L
							PCB-1262 Peak 5	500 ug/L
					SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@0.5PPM_00019	10/25/17	04/26/17	HEXANE, Lot 0000160062	100 mL	SG32/6210PPM_00006	5 mL	Aroclor-1232	500 ug/L
							PCB-1262	500 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	Aroclor-1232	10 ug/mL
							PCB-1262	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		Aroclor-1232	1000 ug/mL
							PCB-1262	1000 ug/mL
SG3262@1.0PPM_00012	10/26/17	04/26/17	HEXANE, Lot 0000160062	50 mL	SG32/6210PPM_00006	5 mL	PCB-1232 Peak 1	1000 ug/L
							PCB-1232 Peak 2	1000 ug/L
							PCB-1232 Peak 3	1000 ug/L
							PCB-1232 Peak 4	1000 ug/L
							PCB-1232 Peak 5	1000 ug/L
							PCB-1262 Peak 1	1000 ug/L
							PCB-1262 Peak 2	1000 ug/L
							PCB-1262 Peak 3	1000 ug/L
							PCB-1262 Peak 4	1000 ug/L
							PCB-1262 Peak 5	1000 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG3262@1.5PPM_00001	10/26/17	04/26/17	HEXANE, Lot 0000160062	50 mL	SG32/6210PPM_00006	7.5 mL	PCB-1232 Peak 1	1500 ug/L
							PCB-1232 Peak 2	1500 ug/L
							PCB-1232 Peak 3	1500 ug/L
							PCB-1232 Peak 4	1500 ug/L
							PCB-1232 Peak 5	1500 ug/L
							PCB-1262 Peak 1	1500 ug/L
							PCB-1262 Peak 2	1500 ug/L
							PCB-1262 Peak 3	1500 ug/L
							PCB-1262 Peak 4	1500 ug/L
							PCB-1262 Peak 5	1500 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG32/6210PPM_00006	11/29/17	11/29/16	HEXANE, Lot 0000146278	100 mL	SG32/62 STK_00002	1 mL	PCB-1232 Peak 1	10 ug/mL
							PCB-1232 Peak 2	10 ug/mL
							PCB-1232 Peak 3	10 ug/mL
							PCB-1232 Peak 4	10 ug/mL
							PCB-1232 Peak 5	10 ug/mL
							PCB-1262 Peak 1	10 ug/mL
							PCB-1262 Peak 2	10 ug/mL
							PCB-1262 Peak 3	10 ug/mL
							PCB-1262 Peak 4	10 ug/mL
							PCB-1262 Peak 5	10 ug/mL
..SG32/62 STK_00002	10/31/21		Restelk, Lot A0112323		(Purchased Reagent)		PCB-1232 Peak 1	1000 ug/mL
							PCB-1232 Peak 2	1000 ug/mL
							PCB-1232 Peak 3	1000 ug/mL
							PCB-1232 Peak 4	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1232 Peak 5	1000 ug/mL
							PCB-1262 Peak 1	1000 ug/mL
							PCB-1262 Peak 2	1000 ug/mL
							PCB-1262 Peak 3	1000 ug/mL
							PCB-1262 Peak 4	1000 ug/mL
							PCB-1262 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG42/68@1.0PP_00016	10/27/17	04/27/17	HEXANE, Lot 0000160062	50 mL	SG42/6810PPM_00005	5 mL	PCB-1242 Peak 1	1000 ug/L
							PCB-1242 Peak 2	1000 ug/L
							PCB-1242 Peak 3	1000 ug/L
							PCB-1242 Peak 4	1000 ug/L
							PCB-1242 Peak 5	1000 ug/L
							PCB-1268 Peak 1	1000 ug/L
							PCB-1268 Peak 2	1000 ug/L
							PCB-1268 Peak 3	1000 ug/L
							PCB-1268 Peak 4	1000 ug/L
							PCB-1268 Peak 5	1000 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.05PPM_00009	10/27/17	04/27/17	HEXANE, Lot 0000160062	50 mL	SG42/6810PPM_00005	0.25 mL	PCB-1242 Peak 1	50 ug/L
							PCB-1242 Peak 2	50 ug/L
							PCB-1242 Peak 3	50 ug/L
							PCB-1242 Peak 4	50 ug/L
							PCB-1242 Peak 5	50 ug/L
							PCB-1268 Peak 1	50 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1268 Peak 2	50 ug/L
							PCB-1268 Peak 3	50 ug/L
							PCB-1268 Peak 4	50 ug/L
							PCB-1268 Peak 5	50 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.1PPM_00010	10/27/17	04/27/17	HEXANE, Lot 0000160062	50 mL	SG42/6810PPM_00005	0.5 mL	PCB-1242 Peak 1	100 ug/L
							PCB-1242 Peak 2	100 ug/L
							PCB-1242 Peak 3	100 ug/L
							PCB-1242 Peak 4	100 ug/L
							PCB-1242 Peak 5	100 ug/L
							PCB-1268 Peak 1	100 ug/L
							PCB-1268 Peak 2	100 ug/L
							PCB-1268 Peak 3	100 ug/L
							PCB-1268 Peak 4	100 ug/L
							PCB-1268 Peak 5	100 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@.2PPM_00010	10/27/17	04/27/17	HEXANE, Lot 0000160062	50 mL	SG42/6810PPM_00005	1 mL	PCB-1242 Peak 1	200 ug/L
							PCB-1242 Peak 2	200 ug/L
							PCB-1242 Peak 3	200 ug/L
							PCB-1242 Peak 4	200 ug/L
							PCB-1242 Peak 5	200 ug/L
							PCB-1268 Peak 1	200 ug/L
							PCB-1268 Peak 2	200 ug/L
							PCB-1268 Peak 3	200 ug/L
							PCB-1268 Peak 4	200 ug/L
							PCB-1268 Peak 5	200 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@0.5PPM_00021	10/27/17	04/27/17	HEXANE, Lot 0000160062	100 mL	SG42/6810PPM_00005	5 mL	PCB-1242 Peak 1	500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1242 Peak 2	500 ug/L
							PCB-1242 Peak 3	500 ug/L
							PCB-1242 Peak 4	500 ug/L
							PCB-1242 Peak 5	500 ug/L
							PCB-1268 Peak 1	500 ug/L
							PCB-1268 Peak 2	500 ug/L
							PCB-1268 Peak 3	500 ug/L
							PCB-1268 Peak 4	500 ug/L
							PCB-1268 Peak 5	500 ug/L
					SGPCBIS STOCk_00008	0.5 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SG4268@0.5PPM_00021	10/27/17	04/27/17	HEXANE, Lot 0000160062	100 mL	SG42/6810PPM_00005	5 mL	Aroclor-1242	500 ug/L
							PCB-1268	500 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	Aroclor-1242	10000 ug/L
							PCB-1268	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		Aroclor-1242	1000 ug/mL
							PCB-1268	1000 ug/mL
SG4268@1.5PPM_00001	10/26/17	04/27/17	HEXANE, Lot 0000160062	50 mL	SG42/6810PPM_00005	7.5 mL	PCB-1242 Peak 1	1500 ug/L
							PCB-1242 Peak 2	1500 ug/L
							PCB-1242 Peak 3	1500 ug/L
							PCB-1242 Peak 4	1500 ug/L
							PCB-1242 Peak 5	1500 ug/L
							PCB-1268 Peak 1	1500 ug/L
							PCB-1268 Peak 2	1500 ug/L
							PCB-1268 Peak 3	1500 ug/L
							PCB-1268 Peak 4	1500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PCB-1268 Peak 5	1500 ug/L
					SGPCBIS STOCk_00008	0.25 mL	1-Bromo-2-nitrobenzene	50 ug/L
.SG42/6810PPM_00005	04/24/18	04/24/17	HEXANE, Lot 0000159594	100 mL	SG 42/68 STK_00002	1 mL	PCB-1242 Peak 1	10000 ug/L
							PCB-1242 Peak 2	10000 ug/L
							PCB-1242 Peak 3	10000 ug/L
							PCB-1242 Peak 4	10000 ug/L
							PCB-1242 Peak 5	10000 ug/L
							PCB-1268 Peak 1	10000 ug/L
							PCB-1268 Peak 2	10000 ug/L
							PCB-1268 Peak 3	10000 ug/L
							PCB-1268 Peak 4	10000 ug/L
							PCB-1268 Peak 5	10000 ug/L
..SG 42/68 STK_00002	04/30/22		RESTEK, Lot A0116616		(Purchased Reagent)		PCB-1242 Peak 1	1000 ug/mL
							PCB-1242 Peak 2	1000 ug/mL
							PCB-1242 Peak 3	1000 ug/mL
							PCB-1242 Peak 4	1000 ug/mL
							PCB-1242 Peak 5	1000 ug/mL
							PCB-1268 Peak 1	1000 ug/mL
							PCB-1268 Peak 2	1000 ug/mL
							PCB-1268 Peak 3	1000 ug/mL
							PCB-1268 Peak 4	1000 ug/mL
							PCB-1268 Peak 5	1000 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
SGPCBISTD_00011	11/04/17	05/04/17	HEXANE, Lot 0000160062	100 mL	SGPCBIS STOCk_00008	10 mL	1-Bromo-2-nitrobenzene	1 ug/mL
.SGPCBIS STOCk_00008	04/24/18	04/24/17	HEXANE, Lot 0000159594	50 mL	ISTD_00004	0.5 mL	1-Bromo-2-nitrobenzene	10 ug/mL
..ISTD_00004	04/30/20		Restek, Lot A0124315		(Purchased Reagent)		1-Bromo-2-nitrobenzene	1000 ug/mL
vm100is_stk_00031	07/17/17	01/17/17	MEOH, Lot 127999	50 mL	vm30241_00006	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00006	02/28/21		restek, Lot A0117358		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100is_stk_00032	10/07/17	04/07/17	MEOH, Lot 127999	50 mL	vm30241_00006	2 mL	1,4-Dichlorobenzene-d4	100 ug/mL
							Chlorobenzene-d5	100 ug/mL
							Fluorobenzene	100 ug/mL
.vm30241_00006	02/28/21		restek, Lot A0117358		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene	2500 ug/mL
vm100ss_stk_00025	09/14/17	03/14/17	MEOH, Lot 127999	100 mL	VM567650_00025	4 mL	1,2-Dichloroethane-d4 (Surr)	100 ug/mL
							4-Bromofluorobenzene (Surr)	100 ug/mL
							Dibromofluoromethane (Surr)	100 ug/mL
							Toluene-d8 (Surr)	100 ug/mL
.VM567650_00025	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_00278	03/31/17	03/24/17	MEOH, Lot na	4 mL	vm50ss_stk_00072	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.vm50ss_stk_00072	06/07/17	12/07/16	MEOH, Lot 0000136118	200 mL	VM567650_00024	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
..VM567650_00024	07/31/20		Restek, Lot A0112455		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vmarolistdw_00190	03/31/17	03/27/17	MEOH, Lot na	4 mL	VMACROLSTD_00046	4 mL	Acrolein	250 ug/mL
.VMACROLSTD_00046	03/31/17	03/01/17	MEOH, Lot 0000127999	20 mL	VM568720_00018	250 uL	Acrolein	250 ug/mL
..VM568720_00018	03/31/17		restek, Lot A0122668		(Purchased Reagent)		Acrolein	20000 ug/mL
VMFASA9W_00135	04/04/17	03/28/17	MEOH, Lot NA	4 mL	VMFASA9_00009	4 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMFASA9_00009	06/30/17	03/02/17	MEOH, Lot 0000127999	100 mL	VM570808S_00001	2 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM571993S_00002	2 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM570808S_00001	06/30/17		Restek, Lot A0116135		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
..VM571993S_00002	12/31/18		restek, Lot A0123771		(Purchased Reagent)		Diisopropyl ether	2500 ug/mL
							Ethyl t-butyl ether	2500 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
VMFASGW_00201	04/03/17	03/27/17	MEOH, Lot NA	4 mL	VMFASG_00056	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00056	04/22/17	03/22/17	MEOH, Lot 0000127999	50 mL	vm569722S_00002	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00002	05/31/18		Restek, Lot A0111273		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VMFASGW_00208	05/21/17	05/14/17	MEOH, Lot NA	4 mL	VMFASG_00058	4 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00058	06/12/17	05/12/17	MEOH, Lot 0000127999	50 mL	vm569722S_00002	1 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00002	05/31/18		Restek, Lot A0111273		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASPW_00196	03/29/17	03/22/17	MEOH, Lot n/a	4 mL	VMRFASP_00036	4 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
.VMRFASP_00036	04/30/17	01/25/17	MEOH, Lot 0000127999	100 mL	VM569720S_00004	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
					VM569721S_00001	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00004	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00010	1 mL	Vinyl acetate	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..VM569720S_00004	07/31/18		Restek, Lot A0120604		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							p-Isopropyltoluene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Styrene	2500 ug/mL
							tert-Butyl alcohol (TBA)	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
..VM569721S_00001	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723S_00004	07/31/18		Restek, Lot A0112291		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00010	04/30/17		Restek, Lot A0122475		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMFASPW_00202	05/16/17	05/09/17	MEOH, Lot n/a	4 mL	VMRFASP_00038	4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	50 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00038	06/30/17	04/27/17	MEOH, Lot 0000127999	100 mL	VM569721S_00001	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723S_00004	2 mL	2-Chloroethyl vinyl ether	50 ug/mL
					VM569724S_00011	1 mL	Vinyl acetate	50 ug/mL
					VM571992S_00001	2 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00001	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	12500 ug/mL
..VM569723S_00004	07/31/18		Restek, Lot A0112291		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724S_00011	06/30/17		Restek, Lot A0123671		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992S_00001	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							o-Xylene	2500 ug/mL
							p-Isopropyltoluene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol (TBA)	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
vmra9w_00198	03/30/17	03/23/17	MEOH, Lot NA	1 mL	VMRA9_00018	1 mL	Cyclohexanone	500 ug/mL
							Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Pentachloroethane	100 ug/mL
							2-Methylnaphthalene	100 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	1250 ug/mL
							Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
.VMRA9_00018	04/30/17	12/31/16	MEOH, Lot 00000127999	50 mL	VM569727_00001	1 mL	Cyclohexanone	500 ug/mL
					VM569728_00001	1 mL	Acetonitrile	500 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
					vm570806_00001	2 mL	Pentachloroethane	100 ug/mL
					vm570807_00001	2 mL	2-Methylnaphthalene	100 ug/mL
					VM570808_00001	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Nitropropane	100 ug/mL
							Benzyl chloride	50 ug/mL
							Methacrylonitrile	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Butanol	1250 ug/mL
					VM570809_00001	1 mL	Ethyl acetate	100 ug/mL
							Ethyl acrylate	50 ug/mL
							Methyl methacrylate	100 ug/mL
							n-Butyl acetate	50 ug/mL
..VM569727_00001	04/30/18		RESTEK, Lot A0110092		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
..VM569728_00001	04/30/17		restek, Lot A0110540		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Diisopropyl ether	2500 ug/mL
							Ethyl t-butyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
..vm570806_00001	12/31/17		Restek, Lot A0116076		(Purchased Reagent)		Pentachloroethane	2500 ug/mL
..vm570807_00001	12/31/17		Restek, Lot A0116084		(Purchased Reagent)		2-Methylnaphthalene	2500 ug/mL
..VM570808_00001	06/30/17		Restek, Lot A0116133		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
							1,3,5-Trichlorobenzene	2500 ug/mL
							1-Chlorohexane	2500 ug/mL
							2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Benzyl chloride	2500 ug/mL
							Methacrylonitrile	25000 ug/mL
							n-Butanol	62500 ug/mL
..VM570809_00001	06/30/17		Restek, Lot A0116077		(Purchased Reagent)		Ethyl acetate	5000 ug/mL
							Ethyl acrylate	2500 ug/mL
							Methyl methacrylate	5000 ug/mL
							n-Butyl acetate	2500 ug/mL
VMRA9W_00204	05/16/17	05/09/17	MEOH, Lot NA	1 mL	VMRA9_00019	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
							Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
.VMRA9_00019	06/30/17	04/27/17	MEOH, Lot 00000127999	50 mL	VM570808_00001	1 mL	1,2,3-Trimethylbenzene	50 ug/mL
					VM571993_00001	1 mL	Diisopropyl ether	50 ug/mL
							Ethyl t-butyl ether	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
..VM570808_00001	06/30/17		Restek, Lot A0116133		(Purchased Reagent)		1,2,3-Trimethylbenzene	2500 ug/mL
..VM571993_00001	12/31/18		restek, Lot A0123796		(Purchased Reagent)		Diisopropyl ether	2500 ug/mL
							Ethyl t-butyl ether	2500 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
vmrgas_00194	04/04/17	03/28/17	MEOH, Lot 0000127999	10 mL	vm569722_00007	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00007	10/31/18		Restek, Lot A0115012		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00199	05/14/17	05/07/17	MEOH, Lot 0000127999	10 mL	vm569722_00007	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00007	10/31/18		Restek, Lot A0115012		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
vmrprimw_00229	03/29/17	03/22/17	MEOH, Lot NA	4 mL	VMRPRIM_00021	4 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl acetate	50 ug/mL
.VMRPRIM_00021	05/31/17	01/31/17	MEOH, Lot 0000127999	50 mL	VM569720_00003	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	250 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
					VM569721_00001	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00001	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00009	0.5 mL	Vinyl acetate	50 ug/mL
..VM569720_00003	03/31/18		Restek, Lot A0118177		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							p-Isopropyltoluene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol (TBA)	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
..VM569721_00001	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00001	01/31/18		restek, Lot A0108172		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00009	05/31/17		Restek, Lot A0123104		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
VMRPRIMW_00235	05/17/17	05/10/17	MEOH, Lot NA	4 mL	VMRPRIM_00021	4 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
							2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
.VMRPRIM_00021	05/31/17	01/31/17	MEOH, Lot 0000127999	50 mL	VM569720_00003	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							p-Isopropyltoluene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butyl alcohol (TBA)	500 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
					VM569721_00001	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00001	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00009	0.5 mL	Vinyl acetate	50 ug/mL
..VM569720_00003	03/31/18		Restek, Lot A0118177		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							p-Isopropyltoluene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butyl alcohol (TBA)	25000 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
..VM569721_00001	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00001	01/31/18		restek, Lot A0108172		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00009	05/31/17		Restek, Lot A0123104		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
WCP-XYLENE_00019	09/27/18		Fisher Scientific, Lot 163497		(Purchased Reagent)		Flashpoint	81 Degrees F

Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 240-79233-1
Project/Site: LM MRC Waste Characterization

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Canton	California	State Program	9	2927
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Florida	NELAP	4	E87225
TestAmerica Canton	Illinois	NELAP	5	200004
TestAmerica Canton	Kansas	NELAP	7	E-10336
TestAmerica Canton	Kentucky (UST)	State Program	4	58
TestAmerica Canton	Kentucky (WW)	State Program	4	98016
TestAmerica Canton	Minnesota	NELAP	5	039-999-348
TestAmerica Canton	Minnesota (Petrofund)	State Program	1	3506
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAP	2	OH001
TestAmerica Canton	New York	NELAP	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Oregon	NELAP	10	4062
TestAmerica Canton	Pennsylvania	NELAP	3	68-00340
TestAmerica Canton	Texas	NELAP	6	T104704517-15-5
TestAmerica Canton	USDA	Federal		P330-16-00404
TestAmerica Canton	Virginia	NELAP	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	West Virginia DEP	State Program	3	210
TestAmerica Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-050417	240-79233-1	87	91	110	86
WC-MRCGW-050417	240-79233-3	84	87	93	95
	MB 240-278854/7	82	85	102	95
	MB 240-278855/7	82	85	102	95
	LCS 240-278854/4	86	83	109	98
	LCS 240-278855/4	86	83	109	98
	240-79341-F-1 MS	77	85	97	89
	240-79341-F-1 MSD	80	83	108	98

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM2602.D

Lab ID: LCS 240-278854/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	21.3	107	73-136	
1,1,1-Trichloroethane	20.0	18.9	95	64-147	
1,1,2,2-Tetrachloroethane	20.0	24.2	121	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.9	109	65-144	
1,1-Dichloroethane	20.0	20.9	104	74-120	
1,1-Dichloroethene	20.0	19.6	98	65-127	
1,1-Dichloropropene	20.0	20.9	104	80-122	
1,2,3-Trichlorobenzene	20.0	23.8	119	31-144	
1,2,3-Trichloropropane	20.0	23.4	117	53-134	
1,2,4-Trichlorobenzene	20.0	22.9	115	34-141	
1,2,4-Trimethylbenzene	20.0	23.4	117	80-120	
1,2-Dibromo-3-Chloropropane	20.0	21.9	110	50-130	
1,2-Dichlorobenzene	20.0	22.8	114	80-120	
1,2-Dichloroethane	20.0	18.6	93	68-133	
1,2-Dichloropropane	20.0	22.2	111	78-127	
1,3-Dichlorobenzene	20.0	22.7	113	80-120	
1,3-Dichloropropane	20.0	23.9	119	71-124	
1,4-Dichlorobenzene	20.0	22.2	111	80-120	
2,2-Dichloropropane	20.0	19.8	99	32-178	
2-Butanone (MEK)	40.0	39.7	99	43-149	
2-Chloroethyl vinyl ether	20.0	20.3	102	58-123	
2-Chlorotoluene	20.0	24.0	120	80-120	
2-Hexanone	40.0	45.1	113	28-169	
4-Chlorotoluene	20.0	23.6	118	79-120	
p-Isopropyltoluene	20.0	23.6	118	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	40.4	101	53-144	
Acetone	40.0	28.8	72	35-131	
Benzene	20.0	20.4	102	79-120	
Bromobenzene	20.0	23.5	117	73-120	
Bromoform	20.0	20.0	100	55-145	
Bromomethane	20.0	17.6	88	17-158	
Carbon disulfide	20.0	20.3	102	49-141	
Carbon tetrachloride	20.0	18.6	93	55-171	
Chlorobenzene	20.0	22.5	113	80-120	
Dibromochloromethane	20.0	21.8	109	64-129	
Chloroethane	20.0	22.4	112	10-149	
Chloroform	20.0	18.6	93	80-120	
Chloromethane	20.0	19.4	97	59-124	
cis-1,2-Dichloroethene	20.0	19.4	97	77-120	
cis-1,3-Dichloropropene	20.0	20.5	102	75-120	
Dibromomethane	20.0	18.1	91	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM2602.D

Lab ID: LCS 240-278854/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromochloromethane	20.0	19.6	98	78-120	
Dichlorodifluoromethane	20.0	20.9	104	42-141	
Bromodichloromethane	20.0	18.7	93	79-125	
tert-Butyl alcohol (TBA)	200	189	95	52-136	
Ethylbenzene	20.0	23.3	116	80-120	
Hexachlorobutadiene	20.0	22.5	113	36-146	
Isopropylbenzene	20.0	21.7	108	80-128	
Methyl tert-butyl ether	20.0	19.4	97	73-120	
Methylene Chloride	20.0	19.7	99	64-140	
m-Xylene & p-Xylene	20.0	23.0	115	80-120	
Naphthalene	20.0	23.3	117	31-127	
n-Butylbenzene	20.0	23.6	118	60-137	
N-Propylbenzene	20.0	24.6	123	76-120	*
o-Xylene	20.0	22.3	112	80-120	
sec-Butylbenzene	20.0	23.6	118	76-124	
Styrene	20.0	22.3	111	80-121	
Tetrachloroethene	20.0	22.6	113	80-122	
Toluene	20.0	23.4	117	78-120	
trans-1,2-Dichloroethene	20.0	20.6	103	74-124	
trans-1,3-Dichloropropene	20.0	22.6	113	67-120	
Trichloroethene	20.0	18.8	94	76-124	
Trichlorofluoromethane	20.0	18.7	94	27-176	
Vinyl acetate	20.0	21.6	108	42-141	
Vinyl chloride	20.0	21.6	108	65-124	
Xylenes, Total	40.0	45.3	113	80-120	
tert-Butylbenzene	20.0	23.2	116	79-120	
1,2-Dibromoethane	20.0	23.1	116	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM2602.D

Lab ID: LCS 240-278855/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	21.3	107	73-136	
1,1,1-Trichloroethane	20.0	18.9	95	64-147	
1,1,2,2-Tetrachloroethane	20.0	24.2	121	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.9	109	65-144	
1,1-Dichloroethane	20.0	20.9	104	74-120	
1,1-Dichloroethene	20.0	19.6	98	65-127	
1,1-Dichloropropene	20.0	20.9	104	80-122	
1,2,3-Trichlorobenzene	20.0	23.8	119	31-144	
1,2,3-Trichloropropane	20.0	23.4	117	53-134	
1,2,4-Trichlorobenzene	20.0	22.9	115	34-141	
1,2,4-Trimethylbenzene	20.0	23.4	117	80-120	
1,2-Dibromo-3-Chloropropane	20.0	21.9	110	50-130	
1,2-Dichlorobenzene	20.0	22.8	114	80-120	
1,2-Dichloroethane	20.0	18.6	93	68-133	
1,2-Dichloropropane	20.0	22.2	111	78-127	
1,3-Dichlorobenzene	20.0	22.7	113	80-120	
1,3-Dichloropropane	20.0	23.9	119	71-124	
1,4-Dichlorobenzene	20.0	22.2	111	80-120	
2,2-Dichloropropane	20.0	19.8	99	32-178	
2-Butanone (MEK)	40.0	37.2	93	43-149	
2-Chloroethyl vinyl ether	20.0	20.3	102	58-123	
2-Chlorotoluene	20.0	24.0	120	80-120	
2-Hexanone	40.0	45.1	113	28-169	
4-Chlorotoluene	20.0	23.6	118	79-120	
p-Isopropyltoluene	20.0	23.6	118	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	40.4	101	53-144	
Acetone	40.0	28.8	72	35-131	
Benzene	20.0	20.4	102	79-120	
Bromobenzene	20.0	23.5	117	73-120	
Bromoform	20.0	20.0	100	55-145	
Bromomethane	20.0	17.6	88	17-158	
Carbon disulfide	20.0	20.3	102	49-141	
Carbon tetrachloride	20.0	18.6	93	55-171	
Chlorobenzene	20.0	22.5	113	80-120	
Dibromochloromethane	20.0	21.8	109	64-129	
Chloroethane	20.0	22.4	112	10-149	
Chloroform	20.0	18.6	93	80-120	
Chloromethane	20.0	19.4	97	59-124	
cis-1,2-Dichloroethene	20.0	19.4	97	77-120	
cis-1,3-Dichloropropene	20.0	20.5	102	75-120	
Dibromomethane	20.0	18.1	91	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM2602.D

Lab ID: LCS 240-278855/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromochloromethane	20.0	19.6	98	78-120	
Dichlorodifluoromethane	20.0	20.9	104	42-141	
Bromodichloromethane	20.0	18.7	93	79-125	
tert-Butyl alcohol (TBA)	200	189	95	52-136	
Ethylbenzene	20.0	23.3	116	80-120	
Hexachlorobutadiene	20.0	22.5	113	36-146	
Isopropylbenzene	20.0	21.7	108	80-128	
Methyl tert-butyl ether	20.0	19.4	97	73-120	
Methylene Chloride	20.0	19.7	99	64-140	
m-Xylene & p-Xylene	20.0	23.0	115	80-120	
Naphthalene	20.0	23.3	117	31-127	
n-Butylbenzene	20.0	23.6	118	60-137	
N-Propylbenzene	20.0	24.6	123	76-120	*
o-Xylene	20.0	22.3	112	80-120	
sec-Butylbenzene	20.0	23.6	118	76-124	
Styrene	20.0	22.3	111	80-121	
Tetrachloroethene	20.0	22.6	113	80-122	
Toluene	20.0	23.4	117	78-120	
trans-1,2-Dichloroethene	20.0	20.6	103	74-124	
trans-1,3-Dichloropropene	20.0	22.6	113	67-120	
Trichloroethene	20.0	18.8	94	76-124	
Trichlorofluoromethane	20.0	18.7	94	27-176	
Vinyl acetate	20.0	21.6	108	42-141	
Vinyl chloride	20.0	21.6	108	65-124	
Xylenes, Total	40.0	45.3	113	80-120	
tert-Butylbenzene	20.0	23.2	116	79-120	
1,2-Dibromoethane	20.0	23.1	116	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM2627.D

Lab ID: 240-79341-F-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	0.92 U	37.1	93	67-142	
1,1,1-Trichloroethane	40.0	0.46 U	33.4	83	57-156	
1,1,2,2-Tetrachloroethane	40.0	0.64 U	1.01 J	3	51-123	F1
1,1-Dichloroethane	40.0	0.50 U	37.2	93	69-122	
1,1-Dichloroethene	40.0	0.54 U	40.2	101	62-127	
1,2,3-Trichloropropane	40.0	1.1 U	45.6	114	41-152	
1,2-Dibromo-3-Chloropropane	40.0	0.94 U	38.0	95	48-130	
1,2-Dichloroethane	40.0	0.60 U	36.8	92	64-138	
1,2-Dichloropropane	40.0	0.60 U	39.2	98	72-131	
2-Butanone (MEK)	80.0	2.0 U	75.2	94	34-153	
2-Hexanone	80.0	2.5 U	91.2	114	21-184	
4-Methyl-2-pentanone (MIBK)	80.0	1.4 U	81.9	102	53-147	
Acetone	80.0	3.5 U	62.9	79	19-133	
Benzene	40.0	69	114	112	69-127	
Bromoform	40.0	0.86 U	33.7	84	61-135	
Bromomethane	40.0	0.84 U	33.1	83	10-148	
Carbon disulfide	40.0	0.68 U	28.3	71	46-143	
Carbon tetrachloride	40.0	0.70 U	31.0	78	53-175	
Chlorobenzene	40.0	0.64 U	40.6	102	76-120	
Dibromochloromethane	40.0	0.50 U	38.7	97	62-131	
Chloroethane	40.0	0.82 U	42.4	106	10-141	
Chloroform	40.0	0.62 U	34.4	86	74-125	
Chloromethane	40.0	0.86 U	34.5	86	34-127	
cis-1,2-Dichloroethene	40.0	0.60 U	35.1	88	69-127	
cis-1,3-Dichloropropene	40.0	0.52 U	35.4	88	68-120	
Dibromomethane	40.0	0.92 U	33.2	83	73-120	
Dichlorodifluoromethane	40.0	1.0 U	34.9	87	45-130	
Bromodichloromethane	40.0	0.60 U	34.0	85	75-128	
Ethylbenzene	40.0	0.82 J	43.4	106	72-121	
Methylene Chloride	40.0	1.1 U	33.1	83	52-137	
m-Xylene & p-Xylene	40.0	16	57.5	105	70-121	
o-Xylene	40.0	15	53.3	95	71-125	
Styrene	40.0	0.98 J	38.8	94	74-125	
Tetrachloroethene	40.0	0.60 U	40.0	100	69-126	
Toluene	40.0	15	54.5	99	69-125	
trans-1,2-Dichloroethene	40.0	0.58 U	36.4	91	66-131	
trans-1,3-Dichloropropene	40.0	0.62 U	37.3	93	59-120	
Trichloroethene	40.0	0.66 U	61.2	153	68-129	F1
Trichlorofluoromethane	40.0	1.0 U	32.3	81	28-172	
Vinyl acetate	40.0	0.56 U	0.56 U	0	51-134	F1
Vinyl chloride	40.0	0.90 U	37.7	94	55-123	
Xylenes, Total	80.0	31	111	100	71-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM2627.D

Lab ID: 240-79341-F-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,2-Dibromoethane	40.0	0.46 U	42.5	106	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM2628.D

Lab ID: 240-79341-F-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	40.0	36.7	92	1	18	67-142	
1,1,1-Trichloroethane	40.0	33.0	83	1	13	57-156	
1,1,2,2-Tetrachloroethane	40.0	0.972 J	2	3	17	51-123	F1
1,1-Dichloroethane	40.0	36.4	91	2	11	69-122	
1,1-Dichloroethene	40.0	36.0	90	11	14	62-127	
1,2,3-Trichloropropane	40.0	47.2	118	3	12	41-152	
1,2-Dibromo-3-Chloropropane	40.0	40.5	101	6	31	48-130	
1,2-Dichloroethane	40.0	33.7	84	9	11	64-138	
1,2-Dichloropropane	40.0	39.1	98	0	12	72-131	
2-Butanone (MEK)	80.0	78.9	99	5	23	34-153	
2-Hexanone	80.0	93.8	117	3	12	21-184	
4-Methyl-2-pentanone (MIBK)	80.0	83.3	104	2	16	53-147	
Acetone	80.0	59.5	74	6	35	19-133	
Benzene	40.0	107	94	6	10	69-127	
Bromoform	40.0	37.0	93	9	13	61-135	
Bromomethane	40.0	31.1	78	6	35	10-148	
Carbon disulfide	40.0	25.5	64	10	18	46-143	
Carbon tetrachloride	40.0	30.6	76	1	17	53-175	
Chlorobenzene	40.0	40.5	101	0	12	76-120	
Dibromochloromethane	40.0	38.9	97	1	15	62-131	
Chloroethane	40.0	38.2	95	10	35	10-141	
Chloroform	40.0	32.7	82	5	11	74-125	
Chloromethane	40.0	33.7	84	2	25	34-127	
cis-1,2-Dichloroethene	40.0	34.1	85	3	11	69-127	
cis-1,3-Dichloropropene	40.0	34.7	87	2	13	68-120	
Dibromomethane	40.0	32.3	81	3	16	73-120	
Dichlorodifluoromethane	40.0	33.3	83	5	34	45-130	
Bromodichloromethane	40.0	32.0	80	6	13	75-128	
Ethylbenzene	40.0	42.2	103	3	15	72-121	
Methylene Chloride	40.0	33.9	85	2	12	52-137	
m-Xylene & p-Xylene	40.0	57.3	104	0	15	70-121	
o-Xylene	40.0	54.8	99	3	15	71-125	
Styrene	40.0	40.5	99	4	14	74-125	
Tetrachloroethene	40.0	41.2	103	3	18	69-126	
Toluene	40.0	56.3	104	3	14	69-125	
trans-1,2-Dichloroethene	40.0	35.6	89	2	11	66-131	
trans-1,3-Dichloropropene	40.0	38.8	97	4	14	59-120	
Trichloroethene	40.0	61.1	153	0	12	68-129	F1
Trichlorofluoromethane	40.0	30.5	76	6	26	28-172	
Vinyl acetate	40.0	0.56 U	0	NC	12	51-134	F1
Vinyl chloride	40.0	37.2	93	1	12	55-123	
Xylenes, Total	80.0	112	101	1	14	71-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM2628.D

Lab ID: 240-79341-F-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,2-Dibromoethane	40.0	42.5	106	0	12	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab File ID: UXM2605.D Lab Sample ID: MB 240-278854/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/14/2017 19:42

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-278854/4	UXM2602.D	05/14/2017 18:32
	240-79341-F-1 MS	UXM2627.D	05/15/2017 04:12
	240-79341-F-1 MSD	UXM2628.D	05/15/2017 04:34

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab File ID: UXM2605.D Lab Sample ID: MB 240-278855/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/14/2017 19:42

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-278855/4	UXM2602.D	05/14/2017 18:32
TB-050417	240-79233-1	UXM2612.D	05/14/2017 22:24
WC-MRCGW-050417	240-79233-3	UXM2614.D	05/14/2017 23:11

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab File ID: BFB5200.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX16 BFB Injection Time: 13:36

Analysis Batch No.: 272262

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	76.3	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272262/6	UXM1388.D	03/29/2017	14:02
	STD8260 240-272262/7	UXM1389.D	03/29/2017	14:25
	STD8260 240-272262/8	UXM1390.D	03/29/2017	14:48
	ICIS 240-272262/9	UXM1391.D	03/29/2017	15:11
	STD8260 240-272262/10	UXM1392.D	03/29/2017	15:34
	STD8260 240-272262/11	UXM1393.D	03/29/2017	15:56
	STDA9 240-272262/13	UXM1395.D	03/29/2017	16:47
	STDA9 240-272262/14	UXM1396.D	03/29/2017	17:10
	STDA9 240-272262/15	UXM1397.D	03/29/2017	17:33
	STDA9 240-272262/16	UXM1398.D	03/29/2017	17:55
	STDA9 240-272262/17	UXM1399.D	03/29/2017	18:18
	STDA9 240-272262/18	UXM1400.D	03/29/2017	18:41
	ICV 240-272262/20	UXM1402.D	03/29/2017	19:27
	ICV 240-272262/21	UXM1403.D	03/29/2017	19:50

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab File ID: BFB5200.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX16 BFB Injection Time: 13:36

Analysis Batch No.: 272263

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	76.3	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272263/6	UXM1388.D	03/29/2017	14:02
	STD8260 240-272263/7	UXM1389.D	03/29/2017	14:25
	STD8260 240-272263/8	UXM1390.D	03/29/2017	14:48
	ICIS 240-272263/9	UXM1391.D	03/29/2017	15:11
	STD8260 240-272263/10	UXM1392.D	03/29/2017	15:34
	STD8260 240-272263/11	UXM1393.D	03/29/2017	15:56
	STDA9 240-272263/13	UXM1395.D	03/29/2017	16:47
	STDA9 240-272263/14	UXM1396.D	03/29/2017	17:10
	STDA9 240-272263/15	UXM1397.D	03/29/2017	17:33
	STDA9 240-272263/16	UXM1398.D	03/29/2017	17:55
	STDA9 240-272263/17	UXM1399.D	03/29/2017	18:18
	STDA9 240-272263/18	UXM1400.D	03/29/2017	18:41
	ICV 240-272263/20	UXM1402.D	03/29/2017	19:27
	ICV 240-272263/21	UXM1403.D	03/29/2017	19:50

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab File ID: BFB5254.D BFB Injection Date: 05/14/2017

Instrument ID: A3UX16 BFB Injection Time: 17:42

Analysis Batch No.: 278854

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.9	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.7	(1.0) 1
174	50.0 - 120.00 % of mass 95	75.3	
175	5.0 - 9.0 % of mass 174	5.4	(7.1) 1
176	95.0 - 101.0 % of mass 174	73.0	(97.0) 1
177	5.0 - 9.0 % of mass 176	4.6	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-278854/3	UXM2601.D	05/14/2017	18:08
	LCS 240-278854/4	UXM2602.D	05/14/2017	18:32
	CCV 240-278854/5	UXM2603.D	05/14/2017	18:55
	MB 240-278854/7	UXM2605.D	05/14/2017	19:42
	240-79341-F-1 MS	UXM2627.D	05/15/2017	04:12
	240-79341-F-1 MSD	UXM2628.D	05/15/2017	04:34

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab File ID: BFB5254.D BFB Injection Date: 05/14/2017

Instrument ID: A3UX16 BFB Injection Time: 17:42

Analysis Batch No.: 278855

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.9	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.7	(1.0) 1
174	50.0 - 120.00 % of mass 95	75.3	
175	5.0 - 9.0 % of mass 174	5.4	(7.1) 1
176	95.0 - 101.0 % of mass 174	73.0	(97.0) 1
177	5.0 - 9.0 % of mass 176	4.6	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-278855/3	UXM2601.D	05/14/2017	18:08
	LCS 240-278855/4	UXM2602.D	05/14/2017	18:32
	CCV 240-278855/5	UXM2603.D	05/14/2017	18:55
	MB 240-278855/7	UXM2605.D	05/14/2017	19:42
TB-050417	240-79233-1	UXM2612.D	05/14/2017	22:24
WC-MRCGW-050417	240-79233-3	UXM2614.D	05/14/2017	23:11

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Sample No.: ICIS 240-272262/9 Date Analyzed: 03/29/2017 15:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1391.D Heated Purge: (Y/N) N

Calibration ID: 39179

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		776481	5.24	664123	7.92	397614	10.16
UPPER LIMIT		1552962	5.74	1328246	8.42	795228	10.66
LOWER LIMIT		388241	4.74	332062	7.42	198807	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272262/20		753863	5.24	641867	7.92	381510	10.16
ICV 240-272262/21		762653	5.24	636920	7.92	364890	10.16
CCVIS 240-278854/3		1053493	5.25	761528	7.93	400715	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Sample No.: ICIS 240-272263/9 Date Analyzed: 03/29/2017 15:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1391.D Heated Purge: (Y/N) N

Calibration ID: 39180

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		776481	5.24	664123	7.92	397614	10.16
UPPER LIMIT		1552962	5.74	1328246	8.42	795228	10.66
LOWER LIMIT		388241	4.74	332062	7.42	198807	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272263/20		753863	5.24	641867	7.92	381510	10.16
ICV 240-272263/21		762653	5.24	636920	7.92	364890	10.16
CCVIS 240-278855/3		1053493	5.25	761528	7.93	400715	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Sample No.: CCVIS 240-278854/3 Date Analyzed: 05/14/2017 18:08

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM2601.D Heated Purge: (Y/N) N

Calibration ID: 39170

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1053493	5.25	761528	7.93	400715	10.16
UPPER LIMIT		2106986	5.75	1523056	8.43	801430	10.66
LOWER LIMIT		526747	4.75	380764	7.43	200358	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-278854/4		1001690	5.25	738705	7.93	398109	10.16
CCV 240-278854/5		1006138	5.25	730109	7.93	383579	10.16
MB 240-278854/7		896325	5.25	721279	7.93	368848	10.16
240-79341-F-1 MS		895202	5.24	717844	7.92	354785	10.16
240-79341-F-1 MSD		1014450	5.24	735707	7.92	391992	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Sample No.: CCVIS 240-278855/3 Date Analyzed: 05/14/2017 18:08

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM2601.D Heated Purge: (Y/N) N

Calibration ID: 39171

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1053493	5.25	761528	7.93	400715	10.16
UPPER LIMIT		2106986	5.75	1523056	8.43	801430	10.66
LOWER LIMIT		526747	4.75	380764	7.43	200358	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-278855/4		1001690	5.25	738705	7.93	398109	10.16
CCV 240-278855/5		1006138	5.25	730109	7.93	383579	10.16
MB 240-278855/7		896325	5.25	721279	7.93	368848	10.16
240-79233-1	TB-050417	820706	5.24	689220	7.93	302628	10.16
240-79233-3	WC-MRCGW-050417	852493	5.24	706677	7.92	329733	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: TB-050417 | Lab Sample ID: 240-79233-1

Matrix: Water | Lab File ID: UXM2612.D

Analysis Method: 8260C | Date Collected: 05/04/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 22:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278855 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	p-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	6.9	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: TB-050417 | Lab Sample ID: 240-79233-1

Matrix: Water | Lab File ID: UXM2612.D

Analysis Method: 8260C | Date Collected: 05/04/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 22:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278855 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.25	U	1.0	0.25
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol (TBA)	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U *	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl t-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Client Sample ID: TB-050417 Lab Sample ID: 240-79233-1

Matrix: Water Lab File ID: UXM2612.D

Analysis Method: 8260C Date Collected: 05/04/2017 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/14/2017 22:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 278855 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	110		73-120
1868-53-7	Dibromofluoromethane (Surr)	87		69-124
460-00-4	4-Bromofluorobenzene (Surr)	86		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: WC-MRCGW-050417 | Lab Sample ID: 240-79233-3

Matrix: Water | Lab File ID: UXM2614.D

Analysis Method: 8260C | Date Collected: 05/04/2017 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 23:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278855 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	2.4		1.0	0.25
75-35-4	1,1-Dichloroethene	0.39	J	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.5	J	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	p-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	5.0	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: WC-MRCGW-050417 | Lab Sample ID: 240-79233-3

Matrix: Water | Lab File ID: UXM2614.D

Analysis Method: 8260C | Date Collected: 05/04/2017 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 23:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278855 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.25	U	1.0	0.25
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	6.7		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol (TBA)	10	J	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	3.6		1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U *	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl t-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	3.7		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.66	J	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: WC-MRCGW-050417 | Lab Sample ID: 240-79233-3

Matrix: Water | Lab File ID: UXM2614.D

Analysis Method: 8260C | Date Collected: 05/04/2017 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 23:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278855 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		61-138

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39179

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272262/6	UXM1388.D
Level 2	STD8260 240-272262/7	UXM1389.D
Level 3	STD8260 240-272262/8	UXM1390.D
Level 4	ICIS 240-272262/9	UXM1391.D
Level 5	STD8260 240-272262/10	UXM1392.D
Level 6	STD8260 240-272262/11	UXM1393.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2774 0.3284	0.2911	0.3262	0.3261	0.3503	Ave		0.3166				8.5		15.0			
Chloromethane	0.4243 0.3631	0.3916	0.3790	0.3773	0.3916	Ave		0.3878			0.1000	5.4		15.0			
Vinyl chloride	0.4087 0.3605	0.3465	0.3612	0.3711	0.3829	Ave		0.3718				5.8		15.0			
Butadiene	0.2591 0.3141	0.2556	0.2954	0.3159	0.3217	Ave		0.2937				10.0		15.0			
Bromomethane	0.2462 0.2319	0.2336	0.2325	0.2219	0.2327	Ave		0.2332				3.3		15.0			
Chloroethane	0.2194 0.2239	0.1843	0.2273	0.2249	0.2316	Ave		0.2186				7.9		15.0			
Dichlorofluoromethane	0.6271 0.5827	0.5458	0.5988	0.5826	0.6147	Ave		0.5919				4.8		15.0			
Trichlorofluoromethane	0.3569 0.4333	0.3855	0.4259	0.4347	0.4592	Ave		0.4159				9.0		15.0			
Ethyl ether	0.2759 0.2366	0.2379	0.2543	0.2398	0.2563	Ave		0.2501				6.1		15.0			
Acrolein	0.0384 0.0319	0.0312	0.0336	0.0327	0.0346	Ave		0.0337				7.6		15.0			
1,1-Dichloroethene	0.3099 0.2842	0.2647	0.2795	0.2888	0.2999	Ave		0.2878				5.5		15.0			
Acetone	+++++ 0.0788	0.1310	0.0907	0.0866	0.0925	Lin1	0.1043	0.0835							0.9940		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0921 0.1845	0.1404	0.1678	0.1754	0.1718	Lin1	-0.045	0.1793							0.9990		0.9900
Iodomethane	0.4817 0.4537	0.4441	0.4516	0.4592	0.4825	Ave		0.4621				3.5		15.0			
Carbon disulfide	1.0384 0.9437	0.8950	0.9260	0.9397	0.9657	Ave		0.9514				5.1		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39179

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2088 0.1945	0.1889	0.2169	0.1917	0.2068	Ave		0.2013				5.5		15.0			
Methyl acetate	0.1785 0.1542	0.1585	0.1607	0.1601	0.1623	Ave		0.1624				5.1		15.0			
Methylene Chloride	+++++ 0.3133	0.8626	0.3413	0.3195	0.3388	Lin1	0.5333	0.3080							0.9980		0.9900
2-Methyl-2-propanol	0.0315 0.0189	0.0213	0.0195	0.0198	0.0198	Lin1	0.0481	0.0192							0.9990		0.9900
Acrylonitrile	0.0953 0.0828	0.0857	0.0840	0.0837	0.0870	Ave		0.0864				5.4		15.0			
trans-1,2-Dichloroethene	0.3210 0.3162	0.2997	0.3159	0.3101	0.3333	Ave		0.3161				3.5		15.0			
Methyl tert-butyl ether	0.8745 0.8162	0.7894	0.8187	0.8126	0.8733	Ave		0.8308				4.2		15.0			
Hexane	0.2939 0.2948	0.2970	0.2722	0.2810	0.2994	Ave		0.2897				3.7		15.0			
1,1-Dichloroethane	0.5521 0.5175	0.4733	0.5210	0.5179	0.5529	Ave		0.5224			0.1000	5.6		15.0			
Vinyl acetate	0.4516 0.4009	0.3877	0.4037	0.3918	0.4198	Ave		0.4093				5.8		15.0			
2,2-Dichloropropane	0.3794 0.3532	0.3453	0.3576	0.3513	0.3722	Ave		0.3598				3.7		15.0			
2-Butanone (MEK)	0.1322 0.0875	0.0867	0.0946	0.0931	0.0992	Lin1	0.0258	0.0920							0.9960		0.9900
cis-1,2-Dichloroethene	0.3587 0.3537	0.3367	0.3467	0.3429	0.3721	Ave		0.3518				3.6		15.0			
Chlorobromomethane	0.1291 0.1502	0.1431	0.1505	0.1467	0.1612	Ave		0.1468				7.2		15.0			
Tetrahydrofuran	+++++ 0.0556	0.0583	0.0569	0.0577	0.0598	Ave		0.0577				2.7		15.0			
Chloroform	0.5471 0.5284	0.5180	0.5158	0.5179	0.5629	Ave		0.5317				3.6		15.0			
1,1,1-Trichloroethane	0.4142 0.4390	0.4248	0.4405	0.4404	0.4618	Ave		0.4368				3.7		15.0			
Cyclohexane	0.4351 0.4326	0.4108	0.4111	0.4328	0.4318	Ave		0.4257				2.7		15.0			
1,1-Dichloropropene	0.3936 0.4033	0.3495	0.3997	0.4002	0.4212	Ave		0.3946				6.1		15.0			
Carbon tetrachloride	0.3835 0.3598	0.3382	0.3513	0.3550	0.3753	Ave		0.3605				4.6		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39179

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0065 0.0062	0.0053	0.0067	0.0067	0.0067	Ave		0.0063				8.6		15.0			
Benzene	1.3724 1.2227	1.1219	1.2218	1.2050	1.2842	Ave		1.2380				6.8		15.0			
1,2-Dichloroethane	0.3910 0.3932	0.3705	0.4014	0.3955	0.4214	Ave		0.3955				4.2		15.0			
n-Heptane	+++++ 0.1323	0.7828	0.1743	0.1452	0.1373	Lin1	0.6515	0.1191							0.9980		0.9900
Trichloroethene	0.3404 0.3089	0.2946	0.3129	0.3013	0.3193	Ave		0.3129				5.1		15.0			
Methylcyclohexane	0.3962 0.4020	0.4164	0.3842	0.3811	0.4140	Ave		0.3990				3.7		15.0			
1,2-Dichloropropane	0.2659 0.2739	0.2677	0.2805	0.2770	0.2933	Ave		0.2764				3.6		15.0			
Dibromomethane	0.1841 0.1580	0.1557	0.1636	0.1609	0.1664	Ave		0.1648				6.2		15.0			
1,4-Dioxane	0.0022 0.0024	0.0021	0.0025	0.0025	0.0025	Ave		0.0024				6.7		15.0			
Dichlorobromomethane	0.3832 0.3821	0.3551	0.3780	0.3743	0.4067	Ave		0.3799				4.4		15.0			
2-Chloroethyl vinyl ether	0.1585 0.1357	0.1250	0.1429	0.1377	0.1476	Ave		0.1413				8.0		15.0			
cis-1,3-Dichloropropene	0.4496 0.4653	0.4268	0.4592	0.4537	0.4927	Ave		0.4579				4.7		15.0			
4-Methyl-2-pentanone (MIBK)	0.2293 0.1854	0.2069	0.2005	0.2004	0.2030	Ave		0.2043				7.0		15.0			
Toluene	1.5034 1.5997	1.3726	1.5269	1.5051	1.6319	Ave		1.5233				6.0		15.0			
trans-1,3-Dichloropropene	0.4548 0.4818	0.4333	0.4674	0.4569	0.4997	Ave		0.4656				5.0		15.0			
Ethyl methacrylate	0.3803 0.3740	0.3185	0.3922	0.3811	0.3898	Ave		0.3726				7.3		15.0			
1,1,2-Trichloroethane	0.2635 0.2687	0.2498	0.2723	0.2568	0.2811	Ave		0.2654				4.2		15.0			
1,3-Dichloropropane	0.5065 0.4731	0.4472	0.4815	0.4621	0.4985	Ave		0.4781				4.6		15.0			
Tetrachloroethene	0.2542 0.2756	0.2173	0.2564	0.2573	0.2785	Ave		0.2566				8.5		15.0			
2-Hexanone	0.2078 0.1535	0.1472	0.1718	0.1662	0.1729	Ave		0.1699				12.5		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39179

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2932 0.3159	0.2671	0.2991	0.3025	0.3261	Ave		0.3007				6.8		15.0			
Ethylene Dibromide	0.2219 0.2665	0.2582	0.2665	0.2598	0.2776	Ave		0.2584				7.4		15.0			
Chlorobenzene	1.0529 0.9678	0.8811	0.9699	0.9300	1.0081	Ave		0.9683			0.3000	6.2		15.0			
1,1,1,2-Tetrachloroethane	0.3063 0.3556	0.3094	0.3415	0.3391	0.3631	Ave		0.3358				7.0		15.0			
Ethylbenzene	0.4877 0.5488	0.4527	0.5317	0.5213	0.5696	Ave		0.5186				8.2		15.0			
m-Xylene & p-Xylene	0.6411 0.6835	0.5972	0.6660	0.6424	0.7068	Ave		0.6562				5.8		15.0			
o-Xylene	0.6365 0.7126	0.5894	0.6714	0.6629	0.7222	Ave		0.6658				7.4		15.0			
Styrene	1.1100 1.1992	0.9655	1.1476	1.1234	1.2429	Ave		1.1314				8.4		15.0			
Bromoform	+++++ 0.1965	0.1499	0.1847	0.1835	0.2004	Ave		0.1830			0.1000	10.9		15.0			
Isopropylbenzene	1.5431 1.7556	1.4920	1.6914	1.6192	1.7882	Ave		1.6482				7.1		15.0			
1,1,2,2-Tetrachloroethane	0.6083 0.5668	0.5706	0.5874	0.5668	0.5898	Ave		0.5816			0.3000	2.8		15.0			
Bromobenzene	0.7214 0.6938	0.6411	0.6888	0.6748	0.7324	Ave		0.6921				4.7		15.0			
1,2,3-Trichloropropane	0.1987 0.1777	0.1412	0.1899	0.1788	0.1886	Ave		0.1791				11.2		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1649	0.1477	0.1661	0.1620	0.1691	Ave		0.1620				5.2		15.0			
N-Propylbenzene	0.6918 0.7372	0.6194	0.7268	0.7170	0.7728	Ave		0.7108				7.3		15.0			
2-Chlorotoluene	0.5891 0.6524	0.6072	0.6547	0.6350	0.6848	Ave		0.6372				5.4		15.0			
1,3,5-Trimethylbenzene	2.0957 2.3598	2.0166	2.3008	2.2541	2.4702	Ave		2.2495				7.5		15.0			
4-Chlorotoluene	0.6633 0.6930	0.6450	0.6920	0.6739	0.7178	Ave		0.6808				3.8		15.0			
tert-Butylbenzene	1.7635 1.9140	1.6247	1.8363	1.8095	2.0418	Ave		1.8316				7.7		15.0			
1,2,4-Trimethylbenzene	2.3247 2.5091	2.1504	2.4221	2.3653	2.6095	Ave		2.3968				6.6		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39179

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.5150 2.6729	2.2201	2.4881	2.5159	2.6914	Ave		2.5172				6.7		15.0			
1,3-Dichlorobenzene	1.4670 1.3679	1.2338	1.3477	1.3117	1.4211	Ave		1.3582				6.0		15.0			
4-Isopropyltoluene	2.1129 2.3459	1.8695	2.2357	2.2077	2.3896	Ave		2.1935				8.5		15.0			
1,4-Dichlorobenzene	1.4955 1.4123	1.3794	1.3886	1.3663	1.4845	Ave		1.4211				3.9		15.0			
n-Butylbenzene	1.7339 1.9743	1.5905	1.8048	1.8379	1.9843	Ave		1.8210				8.2		15.0			
1,2-Dichlorobenzene	1.2562 1.3098	1.1778	1.2902	1.2925	1.3695	Ave		1.2827				4.9		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1052	0.0364	0.0995	0.1035	0.1060	Lin1	-0.070	0.1069							1.0000		0.9900
1,2,4-Trichlorobenzene	0.6877 0.6736	0.5503	0.6622	0.6682	0.6940	Ave		0.6560				8.1		15.0			
Hexachlorobutadiene	0.2877 0.2599	0.2632	0.2675	0.2544	0.2579	Ave		0.2651				4.5		15.0			
Naphthalene	1.6027 1.5994	1.4701	1.5619	1.6108	1.6507	Ave		1.5826				3.9		15.0			
1,2,3-Trichlorobenzene	0.6150 0.5347	0.5152	0.5434	0.5219	0.5373	Ave		0.5446				6.6		15.0			
Dibromofluoromethane (Surr)	+++++ 0.2685	0.2395	0.2729	0.2637	0.2857	Ave		0.2661				6.4		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3228	0.3015	0.3260	0.3254	0.3428	Ave		0.3237				4.5		15.0			
Toluene-d8 (Surr)	+++++ 1.3214	1.1456	1.2974	1.2474	1.3716	Ave		1.2767				6.7		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5071	0.4952	0.5030	0.4775	0.5277	Ave		0.5021				3.6		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39179

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272262/6	UXM1388.D
Level 2	STD8260 240-272262/7	UXM1389.D
Level 3	STD8260 240-272262/8	UXM1390.D
Level 4	ICIS 240-272262/9	UXM1391.D
Level 5	STD8260 240-272262/10	UXM1392.D
Level 6	STD8260 240-272262/11	UXM1393.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5179 847120	11017	128360	253224	550892	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	7922 936755	14820	149125	293002	615885	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7630 930046	13114	142124	288166	602218	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	4838 810331	9674	116239	245302	505876	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4597 598347	8841	91460	172325	365990	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4096 577536	6974	89417	174639	364276	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11708 1503160	20654	235601	452370	966660	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	6664 1117927	14588	167580	337517	722089	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5151 610299	9003	100039	186234	403120	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	3583 411959	5902	66140	127012	271894	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	5786 733110	10015	109963	224216	471677	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 406505	9915	71393	134509	291061	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin1	1719 475836	5314	66002	136175	270113	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	8993 1170460	16807	177685	356561	758795	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19388 2434531	33870	364318	729668	1518632	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	3898 501808	7147	85345	148857	325226	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39179

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	16660 1988424	29982	316228	621600	1276312	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 808307	32644	134304	248096	532778	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Lin1	5873 488818	8043	76560	153795	312048	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	17798 2135402	32438	330543	649564	1367386	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	5994 815699	11343	124281	240825	524179	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	16327 2105680	29872	322103	631005	1373337	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	5487 760574	11238	107113	218153	470888	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10307 1334943	17911	204999	402129	869459	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	8432 1034200	14672	158843	304201	660178	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7083 911074	13066	140701	272751	585273	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Lin1	4935 451516	6565	74473	144524	312018	1.00 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	6697 912453	12740	136411	266288	585132	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	2410 387412	5415	59207	113893	253511	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 286982	4411	44754	89633	188065	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	10215 1363021	19603	202957	402177	885179	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	7733 1132620	16074	173321	341980	726229	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	8124 1115970	15546	161743	336024	679066	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7348 1040465	13224	157266	310724	662295	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7160 928150	12799	138203	275660	590240	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3024 400360	5010	65708	129156	263648	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	25623 3154247	42454	480702	935627	2019515	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39179

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	7301 1014431	14020	157922	307103	662756	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 341428	29623	68593	112761	215843	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6355 796803	11148	123108	233955	502151	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7397 1037120	15758	151173	295935	651030	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4964 706657	10130	110357	215114	461237	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3437 407486	5893	64377	124908	261655	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	834 123335	1605	19655	38426	78547	10.0 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7155 985845	13436	148706	290638	639618	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5918 700370	9463	112468	213909	464280	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8395 1200301	16151	180675	352263	774818	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8562 956773	15661	157774	311153	638574	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	24459 3381801	43972	506034	999549	2175973	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7400 1018460	13881	154908	303427	666263	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6188 790543	10204	129971	253071	519797	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4287 568086	8004	90248	170548	374844	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8240 1000041	14327	159567	306909	664700	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	4136 582643	6962	84984	170857	371340	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	6760 648844	9432	113881	220698	461028	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	4770 667908	8556	99130	200923	434766	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	3610 563465	8273	88330	172552	370102	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	17130 2045855	28228	321425	617603	1344142	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39179

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	4983 751801	9911	113169	225209	484147	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	7935 1160183	14503	176218	346211	759461	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10431 1444911	19132	220713	426620	942436	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10356 1506460	18882	222497	440251	962956	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	18059 2535054	30930	380327	746075	1657306	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 415424	4801	61205	121879	267228	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25106 3711391	47797	560540	1075361	2384274	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	5713 737968	10448	115737	225373	475002	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	6775 903324	11739	135717	268325	589896	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1866 231422	2585	37411	71109	151875	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 214760	2705	32721	64414	136212	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6497 959812	11342	143202	285089	622432	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	5533 849427	11118	129000	252467	551504	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	19682 3072471	36925	453357	896247	1989434	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	6229 902216	11811	136344	267964	578143	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	16562 2492024	29749	361820	719500	1644461	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	21832 3266809	39375	477256	940469	2101646	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	23620 3480080	40652	490263	1000351	2167632	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13777 1780923	22592	265561	521548	1144570	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	19843 3054252	34232	440532	877803	1924581	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	14045 1838844	25258	273613	543264	1195580	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39179

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	16284 2570482	29124	355628	730792	1598143	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	11798 1705302	21566	254218	513920	1102993	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 136942	667	19605	41171	85385	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	6459 876963	10076	130479	265671	558939	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	2702 338447	4820	52710	101162	207737	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	15052 2082436	26918	307761	640457	1329426	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	5776 696197	9433	107067	207510	432770	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 692751	9065	107373	204745	449310	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 832640	11411	128256	252642	539067	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2793316	36701	429977	828458	1828800	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1072081	15864	166696	317105	703668	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2774 0.3284	0.2911	0.3262	0.3261	0.3503	Ave		0.3166			0.1000	8.5		20.0			
Chloromethane	0.4243 0.3631	0.3916	0.3790	0.3773	0.3916	Ave		0.3878			0.1000	5.4		20.0			
Vinyl chloride	0.4087 0.3605	0.3465	0.3612	0.3711	0.3829	Ave		0.3718			0.1000	5.8		20.0			
Butadiene	0.2591 0.3141	0.2556	0.2954	0.3159	0.3217	Ave		0.2937				10.0		20.0			
Bromomethane	0.2462 0.2319	0.2336	0.2325	0.2219	0.2327	Ave		0.2332			0.0500	3.3		20.0			
Chloroethane	0.2194 0.2239	0.1843	0.2273	0.2249	0.2316	Ave		0.2186			0.0500	7.9		20.0			
Dichlorofluoromethane	0.6271 0.5827	0.5458	0.5988	0.5826	0.6147	Ave		0.5919				4.8		20.0			
Trichlorofluoromethane	0.3569 0.4333	0.3855	0.4259	0.4347	0.4592	Ave		0.4159			0.1000	9.0		20.0			
Ethyl ether	0.2759 0.2366	0.2379	0.2543	0.2398	0.2563	Ave		0.2501				6.1		20.0			
Acrolein	0.0384 0.0319	0.0312	0.0336	0.0327	0.0346	Ave		0.0337				7.6		20.0			
1,1-Dichloroethene	0.3099 0.2842	0.2647	0.2795	0.2888	0.2999	Ave		0.2878			0.1000	5.5		20.0			
Acetone	+++++ 0.0788	0.1310	0.0907	0.0866	0.0925	Lin1	0.1043	0.0835			0.0100				0.9940		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0921 0.1845	0.1404	0.1678	0.1754	0.1718	Lin1	-0.045	0.1793			0.0500				0.9990		0.9900
Iodomethane	0.4817 0.4537	0.4441	0.4516	0.4592	0.4825	Ave		0.4621				3.5		20.0			
Carbon disulfide	1.0384 0.9437	0.8950	0.9260	0.9397	0.9657	Ave		0.9514			0.1000	5.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2088 0.1945	0.1889	0.2169	0.1917	0.2068	Ave		0.2013				5.5		20.0			
Methyl acetate	0.1785 0.1542	0.1585	0.1607	0.1601	0.1623	Ave		0.1624			0.1000	5.1		20.0			
Methylene Chloride	+++++ 0.3133	0.8626	0.3413	0.3195	0.3388	Lin1	0.5333	0.3080			0.1000				0.9980		0.9900
tert-Butyl alcohol (TBA)	0.0315 0.0189	0.0213	0.0195	0.0198	0.0198	Lin1	0.0481	0.0192							0.9990		0.9900
Acrylonitrile	0.0953 0.0828	0.0857	0.0840	0.0837	0.0870	Ave		0.0864				5.4		20.0			
trans-1,2-Dichloroethene	0.3210 0.3162	0.2997	0.3159	0.3101	0.3333	Ave		0.3161			0.1000	3.5		20.0			
Methyl tert-butyl ether	0.8745 0.8162	0.7894	0.8187	0.8126	0.8733	Ave		0.8308			0.1000	4.2		20.0			
Hexane	0.2939 0.2948	0.2970	0.2722	0.2810	0.2994	Ave		0.2897				3.7		20.0			
1,1-Dichloroethane	0.5521 0.5175	0.4733	0.5210	0.5179	0.5529	Ave		0.5224			0.2000	5.6		20.0			
Vinyl acetate	0.4516 0.4009	0.3877	0.4037	0.3918	0.4198	Ave		0.4093				5.8		20.0			
2,2-Dichloropropane	0.3794 0.3532	0.3453	0.3576	0.3513	0.3722	Ave		0.3598				3.7		20.0			
2-Butanone (MEK)	0.1322 0.0875	0.0867	0.0946	0.0931	0.0992	Ave		0.0989			0.0100	17.1		20.0			
cis-1,2-Dichloroethene	0.3587 0.3537	0.3367	0.3467	0.3429	0.3721	Ave		0.3518			0.1000	3.6		20.0			
Bromochloromethane	0.1291 0.1502	0.1431	0.1505	0.1467	0.1612	Ave		0.1468				7.2		20.0			
Tetrahydrofuran	+++++ 0.0556	0.0583	0.0569	0.0577	0.0598	Ave		0.0577				2.7		20.0			
Chloroform	0.5471 0.5284	0.5180	0.5158	0.5179	0.5629	Ave		0.5317			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.4142 0.4390	0.4248	0.4405	0.4404	0.4618	Ave		0.4368			0.1000	3.7		20.0			
Cyclohexane	0.4351 0.4326	0.4108	0.4111	0.4328	0.4318	Ave		0.4257			0.1000	2.7		20.0			
1,1-Dichloropropene	0.3936 0.4033	0.3495	0.3997	0.4002	0.4212	Ave		0.3946				6.1		20.0			
Carbon tetrachloride	0.3835 0.3598	0.3382	0.3513	0.3550	0.3753	Ave		0.3605			0.1000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0065 0.0062	0.0053	0.0067	0.0067	0.0067	Ave		0.0063				8.6		20.0			
Benzene	1.3724 1.2227	1.1219	1.2218	1.2050	1.2842	Ave		1.2380			0.5000	6.8		20.0			
1,2-Dichloroethane	0.3910 0.3932	0.3705	0.4014	0.3955	0.4214	Ave		0.3955			0.1000	4.2		20.0			
n-Heptane	+++++ 0.1323	0.7828	0.1743	0.1452	0.1373	Lin1	0.6515	0.1191							0.9980		0.9900
Trichloroethene	0.3404 0.3089	0.2946	0.3129	0.3013	0.3193	Ave		0.3129			0.1500	5.1		20.0			
Methylcyclohexane	0.3962 0.4020	0.4164	0.3842	0.3811	0.4140	Ave		0.3990			0.1000	3.7		20.0			
1,2-Dichloropropane	0.2659 0.2739	0.2677	0.2805	0.2770	0.2933	Ave		0.2764			0.1000	3.6		20.0			
Dibromomethane	0.1841 0.1580	0.1557	0.1636	0.1609	0.1664	Ave		0.1648				6.2		20.0			
1,4-Dioxane	0.0022 0.0024	0.0021	0.0025	0.0025	0.0025	Ave		0.0024				6.7		20.0			
Bromodichloromethane	0.3832 0.3821	0.3551	0.3780	0.3743	0.4067	Ave		0.3799			0.1500	4.4		20.0			
2-Chloroethyl vinyl ether	0.1585 0.1357	0.1250	0.1429	0.1377	0.1476	Ave		0.1413				8.0		20.0			
cis-1,3-Dichloropropene	0.4496 0.4653	0.4268	0.4592	0.4537	0.4927	Ave		0.4579			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.2293 0.1854	0.2069	0.2005	0.2004	0.2030	Ave		0.2043			0.0500	7.0		20.0			
Toluene	1.5034 1.5997	1.3726	1.5269	1.5051	1.6319	Ave		1.5233			0.4000	6.0		20.0			
trans-1,3-Dichloropropene	0.4548 0.4818	0.4333	0.4674	0.4569	0.4997	Ave		0.4656			0.1000	5.0		20.0			
Ethyl methacrylate	0.3803 0.3740	0.3185	0.3922	0.3811	0.3898	Ave		0.3726				7.3		20.0			
1,1,2-Trichloroethane	0.2635 0.2687	0.2498	0.2723	0.2568	0.2811	Ave		0.2654			0.1000	4.2		20.0			
1,3-Dichloropropane	0.5065 0.4731	0.4472	0.4815	0.4621	0.4985	Ave		0.4781				4.6		20.0			
Tetrachloroethene	0.2542 0.2756	0.2173	0.2564	0.2573	0.2785	Ave		0.2566			0.1500	8.5		20.0			
2-Hexanone	0.2078 0.1535	0.1472	0.1718	0.1662	0.1729	Ave		0.1699			0.0500	12.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.2932 0.3159	0.2671	0.2991	0.3025	0.3261	Ave		0.3007				6.8		20.0			
1,2-Dibromoethane	0.2219 0.2665	0.2582	0.2665	0.2598	0.2776	Ave		0.2584				7.4		20.0			
Chlorobenzene	1.0529 0.9678	0.8811	0.9699	0.9300	1.0081	Ave		0.9683			0.3000	6.2		20.0			
1,1,1,2-Tetrachloroethane	0.3063 0.3556	0.3094	0.3415	0.3391	0.3631	Ave		0.3358				7.0		20.0			
Ethylbenzene	0.4877 0.5488	0.4527	0.5317	0.5213	0.5696	Ave		0.5186				8.2		20.0			
m-Xylene & p-Xylene	0.6411 0.6835	0.5972	0.6660	0.6424	0.7068	Ave		0.6562				5.8		20.0			
o-Xylene	0.6365 0.7126	0.5894	0.6714	0.6629	0.7222	Ave		0.6658				7.4		20.0			
Styrene	1.1100 1.1992	0.9655	1.1476	1.1234	1.2429	Ave		1.1314			0.3000	8.4		20.0			
Bromoform	+++++ 0.1965	0.1499	0.1847	0.1835	0.2004	Ave		0.1830			0.1000	10.9		20.0			
Isopropylbenzene	1.5431 1.7556	1.4920	1.6914	1.6192	1.7882	Ave		1.6482			0.1000	7.1		20.0			
1,1,2,2-Tetrachloroethane	0.6083 0.5668	0.5706	0.5874	0.5668	0.5898	Ave		0.5816			0.3000	2.8		20.0			
Bromobenzene	0.7214 0.6938	0.6411	0.6888	0.6748	0.7324	Ave		0.6921				4.7		20.0			
1,2,3-Trichloropropane	0.1987 0.1777	0.1412	0.1899	0.1788	0.1886	Ave		0.1791				11.2		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1649	0.1477	0.1661	0.1620	0.1691	Ave		0.1620				5.2		20.0			
N-Propylbenzene	0.6918 0.7372	0.6194	0.7268	0.7170	0.7728	Ave		0.7108				7.3		20.0			
2-Chlorotoluene	0.5891 0.6524	0.6072	0.6547	0.6350	0.6848	Ave		0.6372				5.4		20.0			
1,3,5-Trimethylbenzene	2.0957 2.3598	2.0166	2.3008	2.2541	2.4702	Ave		2.2495				7.5		20.0			
4-Chlorotoluene	0.6633 0.6930	0.6450	0.6920	0.6739	0.7178	Ave		0.6808				3.8		20.0			
tert-Butylbenzene	1.7635 1.9140	1.6247	1.8363	1.8095	2.0418	Ave		1.8316				7.7		20.0			
1,2,4-Trimethylbenzene	2.3247 2.5091	2.1504	2.4221	2.3653	2.6095	Ave		2.3968				6.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.5150 2.6729	2.2201	2.4881	2.5159	2.6914	Ave		2.5172				6.7		20.0			
1,3-Dichlorobenzene	1.4670 1.3679	1.2338	1.3477	1.3117	1.4211	Ave		1.3582			0.6000	6.0		20.0			
p-Isopropyltoluene	2.1129 2.3459	1.8695	2.2357	2.2077	2.3896	Ave		2.1935				8.5		20.0			
1,4-Dichlorobenzene	1.4955 1.4123	1.3794	1.3886	1.3663	1.4845	Ave		1.4211			0.5000	3.9		20.0			
n-Butylbenzene	1.7339 1.9743	1.5905	1.8048	1.8379	1.9843	Ave		1.8210				8.2		20.0			
1,2-Dichlorobenzene	1.2562 1.3098	1.1778	1.2902	1.2925	1.3695	Ave		1.2827			0.4000	4.9		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1052	0.0364	0.0995	0.1035	0.1060	Lin1	-0.070	0.1069			0.0500				1.0000		0.9900
1,2,4-Trichlorobenzene	0.6877 0.6736	0.5503	0.6622	0.6682	0.6940	Ave		0.6560			0.2000	8.1		20.0			
Hexachlorobutadiene	0.2877 0.2599	0.2632	0.2675	0.2544	0.2579	Ave		0.2651				4.5		20.0			
Naphthalene	1.6027 1.5994	1.4701	1.5619	1.6108	1.6507	Ave		1.5826				3.9		20.0			
1,2,3-Trichlorobenzene	0.6150 0.5347	0.5152	0.5434	0.5219	0.5373	Ave		0.5446				6.6		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2685	0.2395	0.2729	0.2637	0.2857	Ave		0.2661				6.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3228	0.3015	0.3260	0.3254	0.3428	Ave		0.3237				4.5		20.0			
Toluene-d8 (Surr)	+++++ 1.3214	1.1456	1.2974	1.2474	1.3716	Ave		1.2767				6.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5071	0.4952	0.5030	0.4775	0.5277	Ave		0.5021				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5179 847120	11017	128360	253224	550892	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	7922 936755	14820	149125	293002	615885	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7630 930046	13114	142124	288166	602218	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	4838 810331	9674	116239	245302	505876	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4597 598347	8841	91460	172325	365990	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4096 577536	6974	89417	174639	364276	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11708 1503160	20654	235601	452370	966660	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	6664 1117927	14588	167580	337517	722089	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5151 610299	9003	100039	186234	403120	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	3583 411959	5902	66140	127012	271894	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	5786 733110	10015	109963	224216	471677	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 406505	9915	71393	134509	291061	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin1	1719 475836	5314	66002	136175	270113	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	8993 1170460	16807	177685	356561	758795	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19388 2434531	33870	364318	729668	1518632	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	3898 501808	7147	85345	148857	325226	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	16660 1988424	29982	316228	621600	1276312	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 808307	32644	134304	248096	532778	+++++ 60.0	1.00	10.0	20.0	40.0
tert-Butyl alcohol (TBA)	FB	Lin1	5873 488818	8043	76560	153795	312048	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	17798 2135402	32438	330543	649564	1367386	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	5994 815699	11343	124281	240825	524179	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	16327 2105680	29872	322103	631005	1373337	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	5487 760574	11238	107113	218153	470888	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10307 1334943	17911	204999	402129	869459	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	8432 1034200	14672	158843	304201	660178	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7083 911074	13066	140701	272751	585273	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	4935 451516	6565	74473	144524	312018	1.00 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	6697 912453	12740	136411	266288	585132	0.500 60.0	1.00	10.0	20.0	40.0
Bromochloromethane	FB	Ave	2410 387412	5415	59207	113893	253511	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 286982	4411	44754	89633	188065	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	10215 1363021	19603	202957	402177	885179	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	7733 1132620	16074	173321	341980	726229	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	8124 1115970	15546	161743	336024	679066	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7348 1040465	13224	157266	310724	662295	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7160 928150	12799	138203	275660	590240	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3024 400360	5010	65708	129156	263648	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	25623 3154247	42454	480702	935627	2019515	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	7301 1014431	14020	157922	307103	662756	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 341428	29623	68593	112761	215843	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6355 796803	11148	123108	233955	502151	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7397 1037120	15758	151173	295935	651030	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4964 706657	10130	110357	215114	461237	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3437 407486	5893	64377	124908	261655	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	834 123335	1605	19655	38426	78547	10.0 1200	20.0	200	400	800
Bromodichloromethane	FB	Ave	7155 985845	13436	148706	290638	639618	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5918 700370	9463	112468	213909	464280	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8395 1200301	16151	180675	352263	774818	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8562 956773	15661	157774	311153	638574	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	24459 3381801	43972	506034	999549	2175973	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7400 1018460	13881	154908	303427	666263	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6188 790543	10204	129971	253071	519797	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4287 568086	8004	90248	170548	374844	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8240 1000041	14327	159567	306909	664700	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	4136 582643	6962	84984	170857	371340	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	6760 648844	9432	113881	220698	461028	1.00 120	2.00	20.0	40.0	80.0
Dibromochloromethane	CBNZ d5	Ave	4770 667908	8556	99130	200923	434766	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromoethane	CBNZ d5	Ave	3610 563465	8273	88330	172552	370102	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	17130 2045855	28228	321425	617603	1344142	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	4983 751801	9911	113169	225209	484147	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	7935 1160183	14503	176218	346211	759461	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10431 1444911	19132	220713	426620	942436	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10356 1506460	18882	222497	440251	962956	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	18059 2535054	30930	380327	746075	1657306	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 415424	4801	61205	121879	267228	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25106 3711391	47797	560540	1075361	2384274	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	5713 737968	10448	115737	225373	475002	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	6775 903324	11739	135717	268325	589896	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1866 231422	2585	37411	71109	151875	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 214760	2705	32721	64414	136212	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6497 959812	11342	143202	285089	622432	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	5533 849427	11118	129000	252467	551504	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	19682 3072471	36925	453357	896247	1989434	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	6229 902216	11811	136344	267964	578143	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	16562 2492024	29749	361820	719500	1644461	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	21832 3266809	39375	477256	940469	2101646	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	23620 3480080	40652	490263	1000351	2167632	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13777 1780923	22592	265561	521548	1144570	0.500 60.0	1.00	10.0	20.0	40.0
p-Isopropyltoluene	DCBd 4	Ave	19843 3054252	34232	440532	877803	1924581	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	14045 1838844	25258	273613	543264	1195580	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	16284 2570482	29124	355628	730792	1598143	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	11798 1705302	21566	254218	513920	1102993	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 136942	667	19605	41171	85385	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	6459 876963	10076	130479	265671	558939	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	2702 338447	4820	52710	101162	207737	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	15052 2082436	26918	307761	640457	1329426	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	5776 696197	9433	107067	207510	432770	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 692751	9065	107373	204745	449310	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 832640	11411	128256	252642	539067	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2793316	36701	429977	828458	1828800	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1072081	15864	166696	317105	703668	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39170

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-272262/13	UXM1395.D
Level 2	STDA9 240-272262/14	UXM1396.D
Level 3	STDA9 240-272262/15	UXM1397.D
Level 4	STDA9 240-272262/16	UXM1398.D
Level 5	STDA9 240-272262/17	UXM1399.D
Level 6	STDA9 240-272262/18	UXM1400.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0364 0.0272	0.0292	0.0281	0.0279	0.0273	Ave		0.0293				12.0		15.0			
Isopropyl ether	0.2418 0.2884	0.2575	0.2673	0.2841	0.2839	Ave		0.2705				6.8		15.0			
2-Chloro-1,3-butadiene	0.4241 0.5251	0.4918	0.4931	0.5258	0.5135	Ave		0.4956				7.7		15.0			
Tert-butyl ethyl ether	0.8941 0.9713	0.9046	0.9209	0.9620	0.9424	Ave		0.9325				3.3		15.0			
Propionitrile	0.0298 0.0298	0.0331	0.0301	0.0299	0.0302	Ave		0.0305				4.2		15.0			
Ethyl acetate	0.1909 0.1703	0.1752	0.1746	0.1791	0.1739	Ave		0.1773				4.1		15.0			
Methacrylonitrile	0.1327 0.1386	0.1382	0.1332	0.1371	0.1384	Ave		0.1364				2.0		15.0			
Tert-amyl methyl ether	0.8109 0.9359	0.8102	0.8582	0.8930	0.8990	Ave		0.8679				5.8		15.0			
n-Butanol	+++++ 0.0056	0.0040	0.0048	0.0053	0.0055	Ave		0.0050				13.3		15.0			
Ethyl acrylate	0.2249 0.2518	0.2575	0.2408	0.2598	0.2476	Ave		0.2470				5.2		15.0			
Methyl methacrylate	0.1717 0.1935	0.1952	0.1866	0.1924	0.1935	Ave		0.1888				4.7		15.0			
2-Nitropropane	0.0546 0.0638	0.0533	0.0534	0.0600	0.0619	Ave		0.0578				8.0		15.0			
n-Butyl acetate	0.3417 0.3317	0.3093	0.3517	0.3464	0.3372	Ave		0.3363				4.5		15.0			
1-Chlorohexane	0.4194 0.4316	0.4623	0.3987	0.4101	0.4141	Ave		0.4227				5.3		15.0			
Cyclohexanone	+++++ 0.0148	0.0137	0.0131	0.0139	0.0145	Ave		0.0140				4.8		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39170

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1893 0.2532	0.1972	0.2128	0.2350	0.2433	Ave		0.2218				11.7		15.0			
1,2,3-Trimethylbenzene	2.3483 2.9147	2.3254	2.5627	2.7758	2.7767	Ave		2.6173				9.4		15.0			
Benzyl chloride	0.1883 0.3047	0.1975	0.2323	0.2690	0.2821	Lin1	-0.082	0.2894							0.9950		0.9900
1,3,5-Trichlorobenzene	0.6899 0.8706	0.6788	0.7454	0.8135	0.8067	Ave		0.7675				9.9		15.0			
2-Methylnaphthalene	0.3129 0.5782	0.3754	0.4117	0.4892	0.5380	Lin1	-0.355	0.5453							0.9930		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39170

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-272262/13	UXM1395.D
Level 2	STDA9 240-272262/14	UXM1396.D
Level 3	STDA9 240-272262/15	UXM1397.D
Level 4	STDA9 240-272262/16	UXM1398.D
Level 5	STDA9 240-272262/17	UXM1399.D
Level 6	STDA9 240-272262/18	UXM1400.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	6626 616786	10483	98845	200908	404822	5.00 600	10.0	100	200	400
Isopropyl ether	FB	Ave	4401 654948	9244	93982	204572	420896	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	7720 1192751	17656	173376	378581	761346	0.500 60.0	1.00	10.0	20.0	40.0
Tert-butyl ethyl ether	FB	Ave	16275 2205969	32473	323811	692599	1397092	0.500 60.0	1.00	10.0	20.0	40.0
Propionitrile	FB	Ave	5430 676312	11871	105868	215525	447369	5.00 600	10.0	100	200	400
Ethyl acetate	FB	Ave	6948 773738	12578	122769	257931	515707	1.00 120	2.00	20.0	40.0	80.0
Methacrylonitrile	FB	Ave	24149 3147206	49625	468368	986832	2052179	5.00 600	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	14761 2125641	29084	301763	642905	1332793	0.500 60.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	+++++ 318420	3558	42107	95467	202844	+++++ 1500	25.0	250	500	1000
Ethyl acrylate	FB	Ave	4093 571908	9244	84671	187018	367012	0.500 60.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	6251 878953	14011	131247	277118	573813	1.00 120	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	1988 289942	3826	37570	86406	183435	1.00 120	2.00	20.0	40.0	80.0
n-Butyl acetate	FB	Ave	6219 753321	11102	123671	249402	499918	0.500 60.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	6651 803253	13821	117831	250734	514953	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexanone	DCBd 4	Ave	+++++ 156911	2408	22547	48539	103323	+++++ 600	10.0	100	200	400
Pentachloroethane	CBNZ d5	Ave	6006 942593	11793	125799	287390	605017	1.00 120	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272262

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39170

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	21146 3084356	40886	440474	970688	1982895	0.500 60.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Lin1	1696 322434	3473	39933	94075	201482	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	6212 921325	11935	128118	284477	576104	0.500 60.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	5635 1223729	13202	141522	342142	768353	1.00 120	2.00	20.0	40.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-272263/13	UXM1395.D
Level 2	STDA9 240-272263/14	UXM1396.D
Level 3	STDA9 240-272263/15	UXM1397.D
Level 4	STDA9 240-272263/16	UXM1398.D
Level 5	STDA9 240-272263/17	UXM1399.D
Level 6	STDA9 240-272263/18	UXM1400.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0364 0.0272	0.0292	0.0281	0.0279	0.0273	Ave		0.0293				12.0		20.0			
Diisopropyl ether	0.2418 0.2884	0.2575	0.2673	0.2841	0.2839	Ave		0.2705				6.8		20.0			
2-Chloro-1,3-butadiene	0.4241 0.5251	0.4918	0.4931	0.5258	0.5135	Ave		0.4956				7.7		20.0			
Ethyl t-butyl ether	0.8941 0.9713	0.9046	0.9209	0.9620	0.9424	Ave		0.9325				3.3		20.0			
Propionitrile	0.0298 0.0298	0.0331	0.0301	0.0299	0.0302	Ave		0.0305				4.2		20.0			
Ethyl acetate	0.1909 0.1703	0.1752	0.1746	0.1791	0.1739	Ave		0.1773				4.1		20.0			
Methacrylonitrile	0.1327 0.1386	0.1382	0.1332	0.1371	0.1384	Ave		0.1364				2.0		20.0			
Tert-amyl methyl ether	0.8109 0.9359	0.8102	0.8582	0.8930	0.8990	Ave		0.8679				5.8		20.0			
n-Butanol	+++++ 0.0056	0.0040	0.0048	0.0053	0.0055	Ave		0.0050				13.3		20.0			
Ethyl acrylate	0.2249 0.2518	0.2575	0.2408	0.2598	0.2476	Ave		0.2470				5.2		20.0			
Methyl methacrylate	0.1717 0.1935	0.1952	0.1866	0.1924	0.1935	Ave		0.1888				4.7		20.0			
2-Nitropropane	0.0546 0.0638	0.0533	0.0534	0.0600	0.0619	Ave		0.0578				8.0		20.0			
n-Butyl acetate	0.3417 0.3317	0.3093	0.3517	0.3464	0.3372	Ave		0.3363				4.5		20.0			
1-Chlorohexane	0.4194 0.4316	0.4623	0.3987	0.4101	0.4141	Ave		0.4227				5.3		20.0			
Cyclohexanone	+++++ 0.0148	0.0137	0.0131	0.0139	0.0145	Ave		0.0140				4.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1893 0.2532	0.1972	0.2128	0.2350	0.2433	Lin1	-0.090	0.2457							0.9980		0.9900
1,2,3-Trimethylbenzene	2.3483 2.9147	2.3254	2.5627	2.7758	2.7767	Ave		2.6173				9.4		20.0			
Benzyl chloride	0.1883 0.3047	0.1975	0.2323	0.2690	0.2821	Lin1	-0.082	0.2894							0.9950		0.9900
1,3,5-Trichlorobenzene	0.6899 0.8706	0.6788	0.7454	0.8135	0.8067	Ave		0.7675				9.9		20.0			
2-Methylnaphthalene	0.3129 0.5782	0.3754	0.4117	0.4892	0.5380	Lin1	-0.355	0.5453							0.9930		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-272263/13	UXM1395.D
Level 2	STDA9 240-272263/14	UXM1396.D
Level 3	STDA9 240-272263/15	UXM1397.D
Level 4	STDA9 240-272263/16	UXM1398.D
Level 5	STDA9 240-272263/17	UXM1399.D
Level 6	STDA9 240-272263/18	UXM1400.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	6626 616786	10483	98845	200908	404822	5.00 600	10.0	100	200	400
Diisopropyl ether	FB	Ave	4401 654948	9244	93982	204572	420896	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	7720 1192751	17656	173376	378581	761346	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl t-butyl ether	FB	Ave	16275 2205969	32473	323811	692599	1397092	0.500 60.0	1.00	10.0	20.0	40.0
Propionitrile	FB	Ave	5430 676312	11871	105868	215525	447369	5.00 600	10.0	100	200	400
Ethyl acetate	FB	Ave	6948 773738	12578	122769	257931	515707	1.00 120	2.00	20.0	40.0	80.0
Methacrylonitrile	FB	Ave	24149 3147206	49625	468368	986832	2052179	5.00 600	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	14761 2125641	29084	301763	642905	1332793	0.500 60.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	+++++ 318420	3558	42107	95467	202844	+++++ 1500	25.0	250	500	1000
Ethyl acrylate	FB	Ave	4093 571908	9244	84671	187018	367012	0.500 60.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	6251 878953	14011	131247	277118	573813	1.00 120	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	1988 289942	3826	37570	86406	183435	1.00 120	2.00	20.0	40.0	80.0
n-Butyl acetate	FB	Ave	6219 753321	11102	123671	249402	499918	0.500 60.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	6651 803253	13821	117831	250734	514953	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexanone	DCBd 4	Ave	+++++ 156911	2408	22547	48539	103323	+++++ 600	10.0	100	200	400
Pentachloroethane	CBNZ d5	Lin1	6006 942593	11793	125799	287390	605017	1.00 120	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 16:47 Calibration End Date: 03/29/2017 18:41 Calibration ID: 39171

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	21146 3084356	40886	440474	970688	1982895	0.500 60.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Lin1	1696 322434	3473	39933	94075	201482	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	6212 921325	11935	128118	284477	576104	0.500 60.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	5635 1223729	13202	141522	342142	768353	1.00 120	2.00	20.0	40.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-272262/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2754	0.1000	0.0174	0.0200	-13.0	20.0
Chloromethane	Ave	0.3878	0.3485	0.1000	0.0180	0.0200	-10.1	20.0
Vinyl chloride	Ave	0.3718	0.3559	0.1000	0.0191	0.0200	-4.3	20.0
Butadiene	Ave	0.2937	0.2643		0.0180	0.0200	-10.0	30.0
Bromomethane	Ave	0.2332	0.2350	0.0500	0.0202	0.0200	0.8	20.0
Chloroethane	Ave	0.2186	0.2331	0.0500	0.0213	0.0200	6.7	20.0
Dichlorofluoromethane	Ave	0.5919	0.5918		0.0200	0.0200	-0.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.4116	0.1000	0.0198	0.0200	-1.1	20.0
Ethyl ether	Ave	0.2501	0.2556		0.0204	0.0200	2.2	20.0
Acrolein	Ave	0.0337	0.0396		0.117	0.100	17.5	50.0
1,1-Dichloroethene	Ave	0.2878	0.2795	0.1000	0.0194	0.0200	-2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1533	0.0500	0.0174	0.0200	-13.2	20.0
Acetone	Lin1		0.0696	0.0100	0.0321	0.0400	-19.8	50.0
Iodomethane	Ave	0.4621	0.4372		0.0189	0.0200	-5.4	20.0
Carbon disulfide	Ave	0.9514	0.8428	0.1000	0.0177	0.0200	-11.4	20.0
3-Chloro-1-propene	Ave	0.2013	0.2425		0.0241	0.0200	20.5*	20.0
Methyl acetate	Ave	0.1624	0.1554	0.1000	0.0957	0.100	-4.3	20.0
Methylene Chloride	Lin1		0.3421	0.1000	0.0205	0.0200	2.4	50.0
2-Methyl-2-propanol	Lin1		0.0196		0.202	0.200	0.8	50.0
Acrylonitrile	Ave	0.0864	0.0848		0.196	0.200	-1.9	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.3170	0.1000	0.0201	0.0200	0.3	20.0
Methyl tert-butyl ether	Ave	0.8308	0.8348	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2897	0.2684		0.0185	0.0200	-7.4	20.0
1,1-Dichloroethane	Ave	0.5224	0.5289	0.2000	0.0202	0.0200	1.2	20.0
Vinyl acetate	Ave	0.4093	0.4128		0.0202	0.0200	0.9	50.0
2,2-Dichloropropane	Ave	0.3598	0.3379		0.0188	0.0200	-6.1	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3547	0.1000	0.0202	0.0200	0.8	20.0
2-Butanone (MEK)	Lin1		0.0855	0.0100	0.0369	0.0400	-7.8	20.0
Chlorobromomethane	Ave	0.1468	0.1543		0.0210	0.0200	5.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0579		0.0401	0.0400	0.3	20.0
Chloroform	Ave	0.5317	0.5428	0.2000	0.0204	0.0200	2.1	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4432	0.1000	0.0203	0.0200	1.5	20.0
Cyclohexane	Ave	0.4257	0.3980	0.1000	0.0187	0.0200	-6.5	20.0
1,1-Dichloropropene	Ave	0.3946	0.4168		0.0211	0.0200	5.6	20.0
Carbon tetrachloride	Ave	0.3605	0.3553	0.1000	0.0197	0.0200	-1.4	20.0
Isobutyl alcohol	Ave	0.0063	0.0067		0.531	0.500	6.3	20.0
1,2-Dichloroethane	Ave	0.3955	0.4072	0.1000	0.0206	0.0200	2.9	20.0
Benzene	Ave	1.238	1.256	0.5000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.1419		0.0184	0.0200	-8.2	20.0
Trichloroethene	Ave	0.3129	0.3131	0.1500	0.0200	0.0200	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-272262/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3824	0.1000	0.0192	0.0200	-4.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2828	0.1000	0.0205	0.0200	2.3	20.0
Dibromomethane	Ave	0.1648	0.1637		0.0199	0.0200	-0.6	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.396	0.400	-1.0	50.0
Dichlorobromomethane	Ave	0.3799	0.3911	0.1500	0.0206	0.0200	3.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1427		0.0202	0.0200	1.0	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4754	0.1500	0.0208	0.0200	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2065	0.0500	0.0404	0.0400	1.1	20.0
Toluene	Ave	1.523	1.556	0.4000	0.0204	0.0200	2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4662	0.1000	0.0200	0.0200	0.1	20.0
Ethyl methacrylate	Ave	0.3726	0.3982		0.0214	0.0200	6.8	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2798	0.1000	0.0211	0.0200	5.4	20.0
1,3-Dichloropropane	Ave	0.4781	0.4821		0.0202	0.0200	0.8	20.0
Tetrachloroethene	Ave	0.2566	0.2648	0.1500	0.0206	0.0200	3.2	20.0
2-Hexanone	Ave	0.1699	0.1662	0.0500	0.0391	0.0400	-2.2	20.0
Chlorodibromomethane	Ave	0.3007	0.3087		0.0205	0.0200	2.7	20.0
Ethylene Dibromide	Ave	0.2584	0.2744		0.0212	0.0200	6.2	20.0
Chlorobenzene	Ave	0.9683	0.9766	0.3000	0.0202	0.0200	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3543		0.0211	0.0200	5.5	20.0
Ethylbenzene	Ave	0.5186	0.5447		0.0210	0.0200	5.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6832		0.0208	0.0200	4.1	20.0
o-Xylene	Ave	0.6658	0.6969		0.0209	0.0200	4.7	20.0
Styrene	Ave	1.131	1.212	0.3000	0.0214	0.0200	7.1	20.0
Bromoform	Ave	0.1830	0.1912	0.1000	0.0209	0.0200	4.5	20.0
Isopropylbenzene	Ave	1.648	1.723	0.1000	0.0209	0.0200	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6059	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.6921	0.7158		0.0207	0.0200	3.4	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1976		0.0221	0.0200	10.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1763		0.0218	0.0200	8.8	20.0
N-Propylbenzene	Ave	0.7108	0.7354		0.0207	0.0200	3.5	20.0
2-Chlorotoluene	Ave	0.6372	0.6789		0.0213	0.0200	6.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.355		0.0209	0.0200	4.7	20.0
4-Chlorotoluene	Ave	0.6808	0.7194		0.0211	0.0200	5.7	20.0
tert-Butylbenzene	Ave	1.832	1.861		0.0203	0.0200	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.511		0.0210	0.0200	4.8	20.0
sec-Butylbenzene	Ave	2.517	2.551		0.0203	0.0200	1.3	20.0
1,3-Dichlorobenzene	Ave	1.358	1.413	0.6000	0.0208	0.0200	4.0	20.0
4-Isopropyltoluene	Ave	2.194	2.236		0.0204	0.0200	1.9	20.0
1,4-Dichlorobenzene	Ave	1.421	1.444	0.5000	0.0203	0.0200	1.6	20.0
n-Butylbenzene	Ave	1.821	1.891		0.0208	0.0200	3.8	20.0
1,2-Dichlorobenzene	Ave	1.283	1.343	0.4000	0.0209	0.0200	4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-272262/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1071	0.0500	0.0207	0.0200	3.4	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6678	0.2000	0.0204	0.0200	1.8	50.0
Hexachlorobutadiene	Ave	0.2651	0.2451		0.0185	0.0200	-7.6	20.0
Naphthalene	Ave	1.583	1.643		0.0208	0.0200	3.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5563		0.0204	0.0200	2.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2578		0.0194	0.0200	-3.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3176		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.277	1.236		0.0194	0.0200	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4880		0.0194	0.0200	-2.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2754	0.1000	0.0174	0.0200	-13.0	20.0
Chloromethane	Ave	0.3878	0.3485	0.1000	0.0180	0.0200	-10.1	20.0
Vinyl chloride	Ave	0.3718	0.3559	0.1000	0.0191	0.0200	-4.3	20.0
Butadiene	Ave	0.2937	0.2643		0.0180	0.0200	-10.0	30.0
Bromomethane	Ave	0.2332	0.2350	0.0500	0.0202	0.0200	0.8	20.0
Chloroethane	Ave	0.2186	0.2331	0.0500	0.0213	0.0200	6.7	20.0
Dichlorofluoromethane	Ave	0.5919	0.5918		0.0200	0.0200	-0.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.4116	0.1000	0.0198	0.0200	-1.1	20.0
Ethyl ether	Ave	0.2501	0.2556		0.0204	0.0200	2.2	20.0
Acrolein	Ave	0.0337	0.0396		0.117	0.100	17.5	50.0
1,1-Dichloroethene	Ave	0.2878	0.2795	0.1000	0.0194	0.0200	-2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1533	0.0500	0.0174	0.0200	-13.2	20.0
Acetone	Lin1		0.0696	0.0100	0.0321	0.0400	-19.8	50.0
Iodomethane	Ave	0.4621	0.4372		0.0189	0.0200	-5.4	20.0
Carbon disulfide	Ave	0.9514	0.8428	0.1000	0.0177	0.0200	-11.4	20.0
3-Chloro-1-propene	Ave	0.2013	0.2425		0.0241	0.0200	20.5*	20.0
Methyl acetate	Ave	0.1624	0.1554	0.1000	0.0957	0.100	-4.3	20.0
Methylene Chloride	Lin1		0.3421	0.1000	0.0205	0.0200	2.4	50.0
tert-Butyl alcohol (TBA)	Lin1		0.0196		0.202	0.200	0.8	50.0
Acrylonitrile	Ave	0.0864	0.0848		0.196	0.200	-1.9	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.3170	0.1000	0.0201	0.0200	0.3	20.0
Methyl tert-butyl ether	Ave	0.8308	0.8348	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2897	0.2684		0.0185	0.0200	-7.4	20.0
1,1-Dichloroethane	Ave	0.5224	0.5289	0.2000	0.0202	0.0200	1.2	20.0
Vinyl acetate	Ave	0.4093	0.4128		0.0202	0.0200	0.9	50.0
2,2-Dichloropropane	Ave	0.3598	0.3379		0.0188	0.0200	-6.1	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3547	0.1000	0.0202	0.0200	0.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0855	0.0100	0.0346	0.0400	-13.6	20.0
Bromochloromethane	Ave	0.1468	0.1543		0.0210	0.0200	5.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0579		0.0401	0.0400	0.3	20.0
Chloroform	Ave	0.5317	0.5428	0.2000	0.0204	0.0200	2.1	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4432	0.1000	0.0203	0.0200	1.5	20.0
Cyclohexane	Ave	0.4257	0.3980	0.1000	0.0187	0.0200	-6.5	20.0
1,1-Dichloropropene	Ave	0.3946	0.4168		0.0211	0.0200	5.6	20.0
Carbon tetrachloride	Ave	0.3605	0.3553	0.1000	0.0197	0.0200	-1.4	20.0
Isobutyl alcohol	Ave	0.0063	0.0067		0.531	0.500	6.3	20.0
1,2-Dichloroethane	Ave	0.3955	0.4072	0.1000	0.0206	0.0200	2.9	20.0
Benzene	Ave	1.238	1.256	0.5000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.1419		0.0184	0.0200	-8.2	20.0
Trichloroethene	Ave	0.3129	0.3131	0.1500	0.0200	0.0200	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3824	0.1000	0.0192	0.0200	-4.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2828	0.1000	0.0205	0.0200	2.3	20.0
Dibromomethane	Ave	0.1648	0.1637		0.0199	0.0200	-0.6	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.396	0.400	-1.0	50.0
Bromodichloromethane	Ave	0.3799	0.3911	0.1500	0.0206	0.0200	3.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1427		0.0202	0.0200	1.0	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4754	0.1500	0.0208	0.0200	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2065	0.0500	0.0404	0.0400	1.1	20.0
Toluene	Ave	1.523	1.556	0.4000	0.0204	0.0200	2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4662	0.1000	0.0200	0.0200	0.1	20.0
Ethyl methacrylate	Ave	0.3726	0.3982		0.0214	0.0200	6.8	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2798	0.1000	0.0211	0.0200	5.4	20.0
1,3-Dichloropropane	Ave	0.4781	0.4821		0.0202	0.0200	0.8	20.0
Tetrachloroethene	Ave	0.2566	0.2648	0.1500	0.0206	0.0200	3.2	20.0
2-Hexanone	Ave	0.1699	0.1662	0.0500	0.0391	0.0400	-2.2	20.0
Dibromochloromethane	Ave	0.3007	0.3087		0.0205	0.0200	2.7	20.0
1,2-Dibromoethane	Ave	0.2584	0.2744		0.0212	0.0200	6.2	20.0
Chlorobenzene	Ave	0.9683	0.9766	0.3000	0.0202	0.0200	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3543		0.0211	0.0200	5.5	20.0
Ethylbenzene	Ave	0.5186	0.5447		0.0210	0.0200	5.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6832		0.0208	0.0200	4.1	20.0
o-Xylene	Ave	0.6658	0.6969		0.0209	0.0200	4.7	20.0
Styrene	Ave	1.131	1.212	0.3000	0.0214	0.0200	7.1	20.0
Bromoform	Ave	0.1830	0.1912	0.1000	0.0209	0.0200	4.5	20.0
Isopropylbenzene	Ave	1.648	1.723	0.1000	0.0209	0.0200	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6059	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.6921	0.7158		0.0207	0.0200	3.4	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1976		0.0221	0.0200	10.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1763		0.0218	0.0200	8.8	20.0
N-Propylbenzene	Ave	0.7108	0.7354		0.0207	0.0200	3.5	20.0
2-Chlorotoluene	Ave	0.6372	0.6789		0.0213	0.0200	6.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.355		0.0209	0.0200	4.7	20.0
4-Chlorotoluene	Ave	0.6808	0.7194		0.0211	0.0200	5.7	20.0
tert-Butylbenzene	Ave	1.832	1.861		0.0203	0.0200	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.511		0.0210	0.0200	4.8	20.0
sec-Butylbenzene	Ave	2.517	2.551		0.0203	0.0200	1.3	20.0
1,3-Dichlorobenzene	Ave	1.358	1.413	0.6000	0.0208	0.0200	4.0	20.0
p-Isopropyltoluene	Ave	2.194	2.236		0.0204	0.0200	1.9	20.0
1,4-Dichlorobenzene	Ave	1.421	1.444	0.5000	0.0203	0.0200	1.6	20.0
n-Butylbenzene	Ave	1.821	1.891		0.0208	0.0200	3.8	20.0
1,2-Dichlorobenzene	Ave	1.283	1.343	0.4000	0.0209	0.0200	4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1071	0.0500	0.0207	0.0200	3.4	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6678	0.2000	0.0204	0.0200	1.8	50.0
Hexachlorobutadiene	Ave	0.2651	0.2451		0.0185	0.0200	-7.6	20.0
Naphthalene	Ave	1.583	1.643		0.0208	0.0200	3.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5563		0.0204	0.0200	2.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2578		0.0194	0.0200	-3.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3176		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.277	1.236		0.0194	0.0200	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4880		0.0194	0.0200	-2.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-272262/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 16:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 18:41

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0293	0.0273		0.186	0.200	-7.0	20.0
Isopropyl ether	Ave	0.2705	0.2820		0.0209	0.0200	4.3	20.0
2-Chloro-1,3-butadiene	Ave	0.4956	0.4906		0.0198	0.0200	-1.0	20.0
Tert-butyl ethyl ether	Ave	0.9325	0.9269		0.0199	0.0200	-0.6	20.0
Propionitrile	Ave	0.0305	0.0313		0.205	0.200	2.7	20.0
Ethyl acetate	Ave	0.1773	0.1868		0.0421	0.0400	5.3	50.0
Methacrylonitrile	Ave	0.1364	0.1418		0.208	0.200	4.0	20.0
Tert-amyl methyl ether	Ave	0.8679	0.8922		0.0206	0.0200	2.8	20.0
n-Butanol	Ave	0.0050	0.0052		0.517	0.500	3.5	20.0
Ethyl acrylate	Ave	0.2470	0.2770		0.0224	0.0200	12.1	20.0
Methyl methacrylate	Ave	0.1888	0.2036		0.0431	0.0400	7.8	20.0
2-Nitropropane	Ave	0.0578	0.0619		0.0428	0.0400	7.1	20.0
n-Butyl acetate	Ave	0.3363	0.3632		0.0216	0.0200	8.0	30.0
1-Chlorohexane	Ave	0.4227	0.4159		0.0197	0.0200	-1.6	20.0
Cyclohexanone	Ave	0.0140	0.0142		0.202	0.200	1.2	20.0
Pentachloroethane	Ave	0.2218	0.2305		0.0416	0.0400	3.9	30.0
1,2,3-Trimethylbenzene	Ave	2.617	2.576		0.0197	0.0200	-1.6	20.0
Benzyl chloride	Lin1		0.2580		0.0181	0.0200	-9.4	20.0
1,3,5-Trichlorobenzene	Ave	0.7675	0.7354		0.0192	0.0200	-4.2	20.0
2-Methylnaphthalene	Lin1		0.4733		0.0354	0.0400	-11.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-272263/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 16:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 18:41

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0293	0.0273		0.186	0.200	-7.0	20.0
Diisopropyl ether	Ave	0.2705	0.2820		0.0209	0.0200	4.3	20.0
2-Chloro-1,3-butadiene	Ave	0.4956	0.4906		0.0198	0.0200	-1.0	20.0
Ethyl t-butyl ether	Ave	0.9325	0.9269		0.0199	0.0200	-0.6	20.0
Propionitrile	Ave	0.0305	0.0313		0.205	0.200	2.7	20.0
Ethyl acetate	Ave	0.1773	0.1868		0.0421	0.0400	5.3	50.0
Methacrylonitrile	Ave	0.1364	0.1418		0.208	0.200	4.0	20.0
Tert-amyl methyl ether	Ave	0.8679	0.8922		0.0206	0.0200	2.8	20.0
n-Butanol	Ave	0.0050	0.0052		0.517	0.500	3.5	20.0
Ethyl acrylate	Ave	0.2470	0.2770		0.0224	0.0200	12.1	20.0
Methyl methacrylate	Ave	0.1888	0.2036		0.0431	0.0400	7.8	20.0
2-Nitropropane	Ave	0.0578	0.0619		0.0428	0.0400	7.1	20.0
n-Butyl acetate	Ave	0.3363	0.3632		0.0216	0.0200	8.0	30.0
1-Chlorohexane	Ave	0.4227	0.4159		0.0197	0.0200	-1.6	20.0
Cyclohexanone	Ave	0.0140	0.0142		0.202	0.200	1.2	20.0
Pentachloroethane	Lin1		0.2305		0.0379	0.0400	-5.3	20.0
1,2,3-Trimethylbenzene	Ave	2.617	2.576		0.0197	0.0200	-1.6	20.0
Benzyl chloride	Lin1		0.2580		0.0181	0.0200	-9.4	20.0
1,3,5-Trichlorobenzene	Ave	0.7675	0.7354		0.0192	0.0200	-4.2	20.0
2-Methylnaphthalene	Lin1		0.4733		0.0354	0.0400	-11.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-272262/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2661	0.2507		0.0188	0.0200	-5.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3091		0.0191	0.0200	-4.5	20.0
Toluene-d8 (Surr)	Ave	1.277	1.247		0.0195	0.0200	-2.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4775		0.0190	0.0200	-4.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-272263/21 Calibration Date: 03/29/2017 19:50

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1403.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2661	0.2507		0.0188	0.0200	-5.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3091		0.0191	0.0200	-4.5	20.0
Toluene-d8 (Surr)	Ave	1.277	1.247		0.0195	0.0200	-2.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4775		0.0190	0.0200	-4.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCVIS 240-278854/3 Calibration Date: 05/14/2017 18:08

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM2601.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.3121	0.1000	0.0197	0.0200	-1.4	20.0
Chloromethane	Ave	0.3878	0.3765	0.1000	0.0194	0.0200	-2.9	20.0
Vinyl chloride	Ave	0.3718	0.3965	0.1000	0.0213	0.0200	6.6	20.0
Butadiene	Ave	0.2937	0.3810		0.0259	0.0200	29.7*	20.0
Bromomethane	Ave	0.2332	0.2008	0.0500	0.0172	0.0200	-13.9	20.0
Chloroethane	Ave	0.2186	0.2315	0.0500	0.0212	0.0200	5.9	20.0
Dichlorofluoromethane	Ave	0.5919	0.5038		0.0170	0.0200	-14.9	20.0
Trichlorofluoromethane	Ave	0.4159	0.3822	0.1000	0.0184	0.0200	-8.1	20.0
Ethyl ether	Ave	0.2501	0.2299		0.0184	0.0200	-8.1	20.0
Acrolein	Ave	0.0337	0.0230		0.0681	0.100	-31.9	50.0
1,1-Dichloroethene	Ave	0.2878	0.2397	0.1000	0.0167	0.0200	-16.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1700	0.0500	0.0192	0.0200	-3.9	20.0
Acetone	Lin1		0.0907	0.0100	0.0422	0.0400	5.5	50.0
Iodomethane	Ave	0.4621	0.3755		0.0163	0.0200	-18.7	20.0
Carbon disulfide	Ave	0.9514	0.7752	0.1000	0.0163	0.0200	-18.5	20.0
3-Chloro-1-propene	Ave	0.2013	0.1800		0.0179	0.0200	-10.6	20.0
Methyl acetate	Ave	0.1624	0.1640	0.1000	0.101	0.100	1.0	20.0
Methylene Chloride	Lin1		0.2962	0.1000	0.0175	0.0200	-12.5	50.0
2-Methyl-2-propanol	Lin1		0.0194		0.199	0.200	-0.4	50.0
Acrylonitrile	Ave	0.0864	0.0894		0.207	0.200	3.4	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.2822	0.1000	0.0179	0.0200	-10.7	20.0
Methyl tert-butyl ether	Ave	0.8308	0.7457	0.1000	0.0180	0.0200	-10.2	20.0
Hexane	Ave	0.2897	0.2793		0.0193	0.0200	-3.6	20.0
1,1-Dichloroethane	Ave	0.5224	0.5077	0.2000	0.0194	0.0200	-2.8	20.0
Vinyl acetate	Ave	0.4093	0.4448		0.0217	0.0200	8.7	50.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3151	0.1000	0.0179	0.0200	-10.4	20.0
2,2-Dichloropropane	Ave	0.3598	0.3147		0.0175	0.0200	-12.5	20.0
2-Butanone (MEK)	Lin1		0.1097	0.0100	0.0474	0.0400	18.5	20.0
Chlorobromomethane	Ave	0.1468	0.1405		0.0191	0.0200	-4.3	20.0
Tetrahydrofuran	Ave	0.0577	0.0620		0.0430	0.0400	7.6	20.0
Chloroform	Ave	0.5317	0.4698	0.2000	0.0177	0.0200	-11.7	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.3849	0.1000	0.0176	0.0200	-11.9	20.0
Cyclohexane	Ave	0.4257	0.4319	0.1000	0.0203	0.0200	1.4	20.0
1,1-Dichloropropene	Ave	0.3946	0.3795		0.0192	0.0200	-3.8	20.0
Carbon tetrachloride	Ave	0.3605	0.3128	0.1000	0.0174	0.0200	-13.2	20.0
Isobutyl alcohol	Ave	0.0063	0.0066		0.519	0.500	3.9	20.0
1,2-Dichloroethane	Ave	0.3955	0.3551	0.1000	0.0180	0.0200	-10.2	20.0
Benzene	Ave	1.238	1.148	0.5000	0.0185	0.0200	-7.3	20.0
n-Heptane	Lin1		0.1512		0.0199	0.0200	-0.4	20.0
Trichloroethene	Ave	0.3129	0.2849	0.1500	0.0182	0.0200	-9.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCVIS 240-278854/3 Calibration Date: 05/14/2017 18:08

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM2601.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3663	0.1000	0.0184	0.0200	-8.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2903	0.1000	0.0210	0.0200	5.0	20.0
Dibromomethane	Ave	0.1648	0.1491		0.0181	0.0200	-9.5	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.401	0.400	0.4	50.0
Dichlorobromomethane	Ave	0.3799	0.3339	0.1500	0.0176	0.0200	-12.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1510		0.0428	0.0400	6.9	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4586	0.1500	0.0200	0.0200	0.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2115	0.0500	0.0414	0.0400	3.5	20.0
Toluene	Ave	1.523	1.704	0.4000	0.0224	0.0200	11.9	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.5436	0.1000	0.0233	0.0200	16.7	20.0
Ethyl methacrylate	Ave	0.3726	0.4655		0.0250	0.0200	24.9*	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.3083	0.1000	0.0232	0.0200	16.2	20.0
Tetrachloroethene	Ave	0.2566	0.2906	0.1500	0.0227	0.0200	13.3	20.0
1,3-Dichloropropane	Ave	0.4781	0.5906		0.0247	0.0200	23.5*	20.0
2-Hexanone	Ave	0.1699	0.2212	0.0500	0.0521	0.0400	30.2*	20.0
Chlorodibromomethane	Ave	0.3007	0.3339		0.0222	0.0200	11.1	20.0
Ethylene Dibromide	Ave	0.2584	0.2963		0.0229	0.0200	14.6	20.0
Chlorobenzene	Ave	0.9683	1.078	0.3000	0.0223	0.0200	11.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3533		0.0210	0.0200	5.2	20.0
Ethylbenzene	Ave	0.5186	0.5912		0.0228	0.0200	14.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.7217		0.0220	0.0200	10.0	20.0
o-Xylene	Ave	0.6658	0.7171		0.0215	0.0200	7.7	20.0
Styrene	Ave	1.131	1.228	0.3000	0.0217	0.0200	8.6	20.0
Bromoform	Ave	0.1830	0.1953	0.1000	0.0213	0.0200	6.7	20.0
Isopropylbenzene	Ave	1.648	1.727	0.1000	0.0210	0.0200	4.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.7391	0.3000	0.0254	0.0200	27.1*	20.0
Bromobenzene	Ave	0.6921	0.8007		0.0231	0.0200	15.7	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.2238		0.0250	0.0200	24.9*	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1354		0.0167	0.0200	-16.4	20.0
N-Propylbenzene	Ave	0.7108	0.8775		0.0247	0.0200	23.4*	20.0
2-Chlorotoluene	Ave	0.6372	0.7728		0.0243	0.0200	21.3*	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.687		0.0239	0.0200	19.5	20.0
4-Chlorotoluene	Ave	0.6808	0.8176		0.0240	0.0200	20.1*	20.0
tert-Butylbenzene	Ave	1.832	2.207		0.0241	0.0200	20.5*	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.839		0.0237	0.0200	18.5	20.0
sec-Butylbenzene	Ave	2.517	2.966		0.0236	0.0200	17.8	20.0
1,3-Dichlorobenzene	Ave	1.358	1.539	0.6000	0.0227	0.0200	13.3	20.0
4-Isopropyltoluene	Ave	2.194	2.547		0.0232	0.0200	16.1	20.0
1,4-Dichlorobenzene	Ave	1.421	1.555	0.5000	0.0219	0.0200	9.4	20.0
n-Butylbenzene	Ave	1.821	2.099		0.0230	0.0200	15.2	20.0
1,2-Dichlorobenzene	Ave	1.283	1.490	0.4000	0.0232	0.0200	16.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCVIS 240-278854/3 Calibration Date: 05/14/2017 18:08

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM2601.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1299	0.0500	0.0250	0.0200	24.8	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.7634	0.2000	0.0233	0.0200	16.4	50.0
Hexachlorobutadiene	Ave	0.2651	0.2695		0.0203	0.0200	1.7	20.0
Naphthalene	Ave	1.583	1.912		0.0242	0.0200	20.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.6283		0.0231	0.0200	15.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2291		0.0172	0.0200	-13.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.2783		0.0172	0.0200	-14.0	20.0
Toluene-d8 (Surr)	Ave	1.277	1.403		0.0220	0.0200	9.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.5024		0.0200	0.0200	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCVIS 240-278855/3 Calibration Date: 05/14/2017 18:08

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM2601.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.3121	0.1000	0.0197	0.0200	-1.4	20.0
Chloromethane	Ave	0.3878	0.3765	0.1000	0.0194	0.0200	-2.9	20.0
Vinyl chloride	Ave	0.3718	0.3965	0.1000	0.0213	0.0200	6.6	20.0
Butadiene	Ave	0.2937	0.3810		0.0259	0.0200	29.7*	20.0
Bromomethane	Ave	0.2332	0.2008	0.0500	0.0172	0.0200	-13.9	20.0
Chloroethane	Ave	0.2186	0.2315	0.0500	0.0212	0.0200	5.9	20.0
Dichlorofluoromethane	Ave	0.5919	0.5038		0.0170	0.0200	-14.9	20.0
Trichlorofluoromethane	Ave	0.4159	0.3822	0.1000	0.0184	0.0200	-8.1	20.0
Ethyl ether	Ave	0.2501	0.2299		0.0184	0.0200	-8.1	20.0
Acrolein	Ave	0.0337	0.0230		0.0681	0.100	-31.9	50.0
1,1-Dichloroethene	Ave	0.2878	0.2397	0.1000	0.0167	0.0200	-16.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1700	0.0500	0.0192	0.0200	-3.9	20.0
Acetone	Lin1		0.0907	0.0100	0.0422	0.0400	5.5	50.0
Iodomethane	Ave	0.4621	0.3755		0.0163	0.0200	-18.7	20.0
Carbon disulfide	Ave	0.9514	0.7752	0.1000	0.0163	0.0200	-18.5	20.0
3-Chloro-1-propene	Ave	0.2013	0.1800		0.0179	0.0200	-10.6	20.0
Methyl acetate	Ave	0.1624	0.1640	0.1000	0.101	0.100	1.0	20.0
Methylene Chloride	Lin1		0.2962	0.1000	0.0175	0.0200	-12.5	50.0
tert-Butyl alcohol (TBA)	Lin1		0.0194		0.199	0.200	-0.4	50.0
Acrylonitrile	Ave	0.0864	0.0894		0.207	0.200	3.4	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.2822	0.1000	0.0179	0.0200	-10.7	20.0
Methyl tert-butyl ether	Ave	0.8308	0.7457	0.1000	0.0180	0.0200	-10.2	20.0
Hexane	Ave	0.2897	0.2793		0.0193	0.0200	-3.6	20.0
1,1-Dichloroethane	Ave	0.5224	0.5077	0.2000	0.0194	0.0200	-2.8	20.0
Vinyl acetate	Ave	0.4093	0.4448		0.0217	0.0200	8.7	50.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3151	0.1000	0.0179	0.0200	-10.4	20.0
2,2-Dichloropropane	Ave	0.3598	0.3147		0.0175	0.0200	-12.5	20.0
2-Butanone (MEK)	Ave	0.0989	0.1097	0.0100	0.0444	0.0400	11.0	20.0
Bromochloromethane	Ave	0.1468	0.1405		0.0191	0.0200	-4.3	20.0
Tetrahydrofuran	Ave	0.0577	0.0620		0.0430	0.0400	7.6	20.0
Chloroform	Ave	0.5317	0.4698	0.2000	0.0177	0.0200	-11.7	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.3849	0.1000	0.0176	0.0200	-11.9	20.0
Cyclohexane	Ave	0.4257	0.4319	0.1000	0.0203	0.0200	1.4	20.0
1,1-Dichloropropene	Ave	0.3946	0.3795		0.0192	0.0200	-3.8	20.0
Carbon tetrachloride	Ave	0.3605	0.3128	0.1000	0.0174	0.0200	-13.2	20.0
Isobutyl alcohol	Ave	0.0063	0.0066		0.519	0.500	3.9	20.0
1,2-Dichloroethane	Ave	0.3955	0.3551	0.1000	0.0180	0.0200	-10.2	20.0
Benzene	Ave	1.238	1.148	0.5000	0.0185	0.0200	-7.3	20.0
n-Heptane	Lin1		0.1512		0.0199	0.0200	-0.4	20.0
Trichloroethene	Ave	0.3129	0.2849	0.1500	0.0182	0.0200	-9.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCVIS 240-278855/3 Calibration Date: 05/14/2017 18:08

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM2601.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3663	0.1000	0.0184	0.0200	-8.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2903	0.1000	0.0210	0.0200	5.0	20.0
Dibromomethane	Ave	0.1648	0.1491		0.0181	0.0200	-9.5	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.401	0.400	0.4	50.0
Bromodichloromethane	Ave	0.3799	0.3339	0.1500	0.0176	0.0200	-12.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1510		0.0428	0.0400	6.9	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4586	0.1500	0.0200	0.0200	0.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2115	0.0500	0.0414	0.0400	3.5	20.0
Toluene	Ave	1.523	1.704	0.4000	0.0224	0.0200	11.9	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.5436	0.1000	0.0233	0.0200	16.7	20.0
Ethyl methacrylate	Ave	0.3726	0.4655		0.0250	0.0200	24.9*	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.3083	0.1000	0.0232	0.0200	16.2	20.0
Tetrachloroethene	Ave	0.2566	0.2906	0.1500	0.0227	0.0200	13.3	20.0
1,3-Dichloropropane	Ave	0.4781	0.5906		0.0247	0.0200	23.5*	20.0
2-Hexanone	Ave	0.1699	0.2212	0.0500	0.0521	0.0400	30.2*	20.0
Dibromochloromethane	Ave	0.3007	0.3339		0.0222	0.0200	11.1	20.0
1,2-Dibromoethane	Ave	0.2584	0.2963		0.0229	0.0200	14.6	20.0
Chlorobenzene	Ave	0.9683	1.078	0.3000	0.0223	0.0200	11.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3533		0.0210	0.0200	5.2	20.0
Ethylbenzene	Ave	0.5186	0.5912		0.0228	0.0200	14.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.7217		0.0220	0.0200	10.0	20.0
o-Xylene	Ave	0.6658	0.7171		0.0215	0.0200	7.7	20.0
Styrene	Ave	1.131	1.228	0.3000	0.0217	0.0200	8.6	20.0
Bromoform	Ave	0.1830	0.1953	0.1000	0.0213	0.0200	6.7	20.0
Isopropylbenzene	Ave	1.648	1.727	0.1000	0.0210	0.0200	4.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.7391	0.3000	0.0254	0.0200	27.1*	20.0
Bromobenzene	Ave	0.6921	0.8007		0.0231	0.0200	15.7	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.2238		0.0250	0.0200	24.9*	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1354		0.0167	0.0200	-16.4	20.0
N-Propylbenzene	Ave	0.7108	0.8775		0.0247	0.0200	23.4*	20.0
2-Chlorotoluene	Ave	0.6372	0.7728		0.0243	0.0200	21.3*	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.687		0.0239	0.0200	19.5	20.0
4-Chlorotoluene	Ave	0.6808	0.8176		0.0240	0.0200	20.1*	20.0
tert-Butylbenzene	Ave	1.832	2.207		0.0241	0.0200	20.5*	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.839		0.0237	0.0200	18.5	20.0
sec-Butylbenzene	Ave	2.517	2.966		0.0236	0.0200	17.8	20.0
1,3-Dichlorobenzene	Ave	1.358	1.539	0.6000	0.0227	0.0200	13.3	20.0
p-Isopropyltoluene	Ave	2.194	2.547		0.0232	0.0200	16.1	20.0
1,4-Dichlorobenzene	Ave	1.421	1.555	0.5000	0.0219	0.0200	9.4	20.0
n-Butylbenzene	Ave	1.821	2.099		0.0230	0.0200	15.2	20.0
1,2-Dichlorobenzene	Ave	1.283	1.490	0.4000	0.0232	0.0200	16.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCVIS 240-278855/3 Calibration Date: 05/14/2017 18:08

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM2601.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1299	0.0500	0.0250	0.0200	24.8	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.7634	0.2000	0.0233	0.0200	16.4	50.0
Hexachlorobutadiene	Ave	0.2651	0.2695		0.0203	0.0200	1.7	20.0
Naphthalene	Ave	1.583	1.912		0.0242	0.0200	20.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.6283		0.0231	0.0200	15.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2291		0.0172	0.0200	-13.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.2783		0.0172	0.0200	-14.0	20.0
Toluene-d8 (Surr)	Ave	1.277	1.403		0.0220	0.0200	9.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.5024		0.0200	0.0200	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278854/5 Calibration Date: 05/14/2017 18:55

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 16:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 18:41

Lab File ID: UXM2603.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0293	0.0280		0.191	0.200	-4.6	20.0
Isopropyl ether	Ave	0.2705	0.2625		0.0194	0.0200	-3.0	20.0
2-Chloro-1,3-butadiene	Ave	0.4956	0.4540		0.0183	0.0200	-8.4	20.0
Tert-butyl ethyl ether	Ave	0.9325	0.8203		0.0176	0.0200	-12.0	20.0
Propionitrile	Ave	0.0305	0.0306		0.201	0.200	0.4	20.0
Ethyl acetate	Ave	0.1773	0.1898		0.0428	0.0400	7.0	50.0
Methacrylonitrile	Ave	0.1364	0.1376		0.202	0.200	0.9	20.0
Tert-amyl methyl ether	Ave	0.8679	0.7378		0.0170	0.0200	-15.0	20.0
n-Butanol	Ave	0.0050	0.0048		0.480	0.500	-3.9	20.0
Ethyl acrylate	Ave	0.2470	0.2698		0.0218	0.0200	9.2	20.0
Methyl methacrylate	Ave	0.1888	0.1991		0.0422	0.0400	5.4	20.0
2-Nitropropane	Ave	0.0578	0.0467		0.0323	0.0400	-19.3	20.0
n-Butyl acetate	Ave	0.3363	0.3194		0.0190	0.0200	-5.0	20.0
1-Chlorohexane	Ave	0.4227	0.4429		0.0210	0.0200	4.8	20.0
Cyclohexanone	Ave	0.0140	0.0161		0.230	0.200	14.8	20.0
Pentachloroethane	Ave	0.2218	0.2227		0.0402	0.0400	0.4	20.0
1,2,3-Trimethylbenzene	Ave	2.617	2.866		0.0219	0.0200	9.5	20.0
Benzyl chloride	Lin1		0.2455		0.0172	0.0200	-13.8	20.0
1,3,5-Trichlorobenzene	Ave	0.7675	0.8042		0.0210	0.0200	4.8	20.0
2-Methylnaphthalene	Lin1		0.4658		0.0348	0.0400	-13.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278855/5 Calibration Date: 05/14/2017 18:55

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 16:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 18:41

Lab File ID: UXM2603.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0293	0.0280		0.191	0.200	-4.6	20.0
Diisopropyl ether	Ave	0.2705	0.2625		0.0194	0.0200	-3.0	20.0
2-Chloro-1,3-butadiene	Ave	0.4956	0.4540		0.0183	0.0200	-8.4	20.0
Ethyl t-butyl ether	Ave	0.9325	0.8203		0.0176	0.0200	-12.0	20.0
Propionitrile	Ave	0.0305	0.0306		0.201	0.200	0.4	20.0
Ethyl acetate	Ave	0.1773	0.1898		0.0428	0.0400	7.0	50.0
Methacrylonitrile	Ave	0.1364	0.1376		0.202	0.200	0.9	20.0
Tert-amyl methyl ether	Ave	0.8679	0.7378		0.0170	0.0200	-15.0	20.0
n-Butanol	Ave	0.0050	0.0048		0.480	0.500	-3.9	20.0
Ethyl acrylate	Ave	0.2470	0.2698		0.0218	0.0200	9.2	20.0
Methyl methacrylate	Ave	0.1888	0.1991		0.0422	0.0400	5.4	20.0
2-Nitropropane	Ave	0.0578	0.0467		0.0323	0.0400	-19.3	20.0
n-Butyl acetate	Ave	0.3363	0.3194		0.0190	0.0200	-5.0	20.0
1-Chlorohexane	Ave	0.4227	0.4429		0.0210	0.0200	4.8	20.0
Cyclohexanone	Ave	0.0140	0.0161		0.230	0.200	14.8	20.0
Pentachloroethane	Lin1		0.2227		0.0366	0.0400	-8.5	20.0
1,2,3-Trimethylbenzene	Ave	2.617	2.866		0.0219	0.0200	9.5	20.0
Benzyl chloride	Lin1		0.2455		0.0172	0.0200	-13.8	20.0
1,3,5-Trichlorobenzene	Ave	0.7675	0.8042		0.0210	0.0200	4.8	20.0
2-Methylnaphthalene	Lin1		0.4658		0.0348	0.0400	-13.0	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-278854/7

Matrix: Water | Lab File ID: UXM2605.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 19:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278854 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	p-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-278854/7

Matrix: Water | Lab File ID: UXM2605.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 19:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278854 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.25	U	1.0	0.25
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol (TBA)	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl t-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-278854/7

Matrix: Water | Lab File ID: UXM2605.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 19:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278854 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		73-120
1868-53-7	Dibromofluoromethane (Surr)	82		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-278855/7

Matrix: Water | Lab File ID: UXM2605.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 19:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278855 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	p-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-278855/7

Matrix: Water | Lab File ID: UXM2605.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 19:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278855 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	0.25	U	1.0	0.25
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol (TBA)	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl t-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-278855/7

Matrix: Water Lab File ID: UXM2605.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/14/2017 19:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 278855 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		73-120
1868-53-7	Dibromofluoromethane (Surr)	82		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-278854/4

Matrix: Water | Lab File ID: UXM2602.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 18:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278854 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	21.3		1.0	0.46
71-55-6	1,1,1-Trichloroethane	18.9		1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	24.2		1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	21.9		1.0	0.41
75-34-3	1,1-Dichloroethane	20.9		1.0	0.25
75-35-4	1,1-Dichloroethene	19.6		1.0	0.27
563-58-6	1,1-Dichloropropene	20.9		1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	23.8		1.0	0.35
96-18-4	1,2,3-Trichloropropane	23.4		1.0	0.54
120-82-1	1,2,4-Trichlorobenzene	22.9		1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	23.4		1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	21.9		2.0	0.47
95-50-1	1,2-Dichlorobenzene	22.8		1.0	0.26
107-06-2	1,2-Dichloroethane	18.6		1.0	0.30
78-87-5	1,2-Dichloropropane	22.2		1.0	0.30
541-73-1	1,3-Dichlorobenzene	22.7		1.0	0.32
142-28-9	1,3-Dichloropropane	23.9		1.0	0.29
106-46-7	1,4-Dichlorobenzene	22.2		1.0	0.23
594-20-7	2,2-Dichloropropane	19.8		1.0	0.34
78-93-3	2-Butanone (MEK)	39.7		10	1.0
110-75-8	2-Chloroethyl vinyl ether	20.3		10	0.65
95-49-8	2-Chlorotoluene	24.0		1.0	0.28
591-78-6	2-Hexanone	45.1		10	1.2
106-43-4	4-Chlorotoluene	23.6		1.0	0.23
99-87-6	p-Isopropyltoluene	23.6		1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	40.4		10	0.71
67-64-1	Acetone	28.8		10	1.8
71-43-2	Benzene	20.4		1.0	0.28
108-86-1	Bromobenzene	23.5		1.0	0.31
75-25-2	Bromoform	20.0		1.0	0.43
74-83-9	Bromomethane	17.6		1.0	0.42
75-15-0	Carbon disulfide	20.3		1.0	0.34
56-23-5	Carbon tetrachloride	18.6		1.0	0.35
108-90-7	Chlorobenzene	22.5		1.0	0.32
124-48-1	Dibromochloromethane	21.8		1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-278854/4

Matrix: Water | Lab File ID: UXM2602.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 18:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278854 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	22.4		1.0	0.41
67-66-3	Chloroform	18.6		1.0	0.31
74-87-3	Chloromethane	19.4		1.0	0.43
156-59-2	cis-1,2-Dichloroethene	19.4		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	20.5		1.0	0.26
74-95-3	Dibromomethane	18.1		1.0	0.46
74-97-5	Bromochloromethane	19.6		1.0	0.47
75-71-8	Dichlorodifluoromethane	20.9		1.0	0.50
75-27-4	Bromodichloromethane	18.7		1.0	0.30
75-65-0	tert-Butyl alcohol (TBA)	189		50	4.6
100-41-4	Ethylbenzene	23.3		1.0	0.26
87-68-3	Hexachlorobutadiene	22.5		1.0	0.36
98-82-8	Isopropylbenzene	21.7		1.0	0.21
1634-04-4	Methyl tert-butyl ether	19.4		1.0	0.27
75-09-2	Methylene Chloride	19.7		1.0	0.53
179601-23-1	m-Xylene & p-Xylene	23.0		2.0	0.24
91-20-3	Naphthalene	23.3		1.0	0.25
104-51-8	n-Butylbenzene	23.6		1.0	0.21
103-65-1	N-Propylbenzene	24.6		1.0	0.45
95-47-6	o-Xylene	22.3		1.0	0.28
135-98-8	sec-Butylbenzene	23.6		1.0	0.27
100-42-5	Styrene	22.3		1.0	0.23
127-18-4	Tetrachloroethene	22.6		1.0	0.30
108-88-3	Toluene	23.4		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	20.6		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	22.6		1.0	0.31
79-01-6	Trichloroethene	18.8		1.0	0.33
75-69-4	Trichlorofluoromethane	18.7		1.0	0.50
108-05-4	Vinyl acetate	21.6		2.0	0.28
75-01-4	Vinyl chloride	21.6		1.0	0.45
1330-20-7	Xylenes, Total	45.3		2.0	0.24
98-06-6	tert-Butylbenzene	23.2		1.0	0.26
106-93-4	1,2-Dibromoethane	23.1		1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-278854/4

Matrix: Water Lab File ID: UXM2602.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/14/2017 18:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 278854 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	109		73-120
1868-53-7	Dibromofluoromethane (Surr)	86		69-124
460-00-4	4-Bromofluorobenzene (Surr)	98		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-278855/4

Matrix: Water | Lab File ID: UXM2602.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 18:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278855 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	21.3		1.0	0.46
71-55-6	1,1,1-Trichloroethane	18.9		1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	24.2		1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	21.9		1.0	0.41
75-34-3	1,1-Dichloroethane	20.9		1.0	0.25
75-35-4	1,1-Dichloroethene	19.6		1.0	0.27
563-58-6	1,1-Dichloropropene	20.9		1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	23.8		1.0	0.35
96-18-4	1,2,3-Trichloropropane	23.4		1.0	0.54
120-82-1	1,2,4-Trichlorobenzene	22.9		1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	23.4		1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	21.9		2.0	0.47
95-50-1	1,2-Dichlorobenzene	22.8		1.0	0.26
107-06-2	1,2-Dichloroethane	18.6		1.0	0.30
78-87-5	1,2-Dichloropropane	22.2		1.0	0.30
541-73-1	1,3-Dichlorobenzene	22.7		1.0	0.32
142-28-9	1,3-Dichloropropane	23.9		1.0	0.29
106-46-7	1,4-Dichlorobenzene	22.2		1.0	0.23
594-20-7	2,2-Dichloropropane	19.8		1.0	0.34
78-93-3	2-Butanone (MEK)	37.2		10	1.0
110-75-8	2-Chloroethyl vinyl ether	20.3		10	0.65
95-49-8	2-Chlorotoluene	24.0		1.0	0.28
591-78-6	2-Hexanone	45.1		10	1.2
106-43-4	4-Chlorotoluene	23.6		1.0	0.23
99-87-6	p-Isopropyltoluene	23.6		1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	40.4		10	0.71
67-64-1	Acetone	28.8		10	1.8
71-43-2	Benzene	20.4		1.0	0.28
108-86-1	Bromobenzene	23.5		1.0	0.31
75-25-2	Bromoform	20.0		1.0	0.43
74-83-9	Bromomethane	17.6		1.0	0.42
75-15-0	Carbon disulfide	20.3		1.0	0.34
56-23-5	Carbon tetrachloride	18.6		1.0	0.35
108-90-7	Chlorobenzene	22.5		1.0	0.32
124-48-1	Dibromochloromethane	21.8		1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-278855/4

Matrix: Water | Lab File ID: UXM2602.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/14/2017 18:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278855 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	22.4		1.0	0.41
67-66-3	Chloroform	18.6		1.0	0.31
74-87-3	Chloromethane	19.4		1.0	0.43
156-59-2	cis-1,2-Dichloroethene	19.4		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	20.5		1.0	0.26
74-95-3	Dibromomethane	18.1		1.0	0.46
74-97-5	Bromochloromethane	19.6		1.0	0.47
75-71-8	Dichlorodifluoromethane	20.9		1.0	0.50
75-27-4	Bromodichloromethane	18.7		1.0	0.30
75-65-0	tert-Butyl alcohol (TBA)	189		50	4.6
100-41-4	Ethylbenzene	23.3		1.0	0.26
87-68-3	Hexachlorobutadiene	22.5		1.0	0.36
98-82-8	Isopropylbenzene	21.7		1.0	0.21
1634-04-4	Methyl tert-butyl ether	19.4		1.0	0.27
75-09-2	Methylene Chloride	19.7		1.0	0.53
179601-23-1	m-Xylene & p-Xylene	23.0		2.0	0.24
91-20-3	Naphthalene	23.3		1.0	0.25
104-51-8	n-Butylbenzene	23.6		1.0	0.21
103-65-1	N-Propylbenzene	24.6		1.0	0.45
95-47-6	o-Xylene	22.3		1.0	0.28
135-98-8	sec-Butylbenzene	23.6		1.0	0.27
100-42-5	Styrene	22.3		1.0	0.23
127-18-4	Tetrachloroethene	22.6		1.0	0.30
108-88-3	Toluene	23.4		1.0	0.23
156-60-5	trans-1,2-Dichloroethene	20.6		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	22.6		1.0	0.31
79-01-6	Trichloroethene	18.8		1.0	0.33
75-69-4	Trichlorofluoromethane	18.7		1.0	0.50
108-05-4	Vinyl acetate	21.6		2.0	0.28
75-01-4	Vinyl chloride	21.6		1.0	0.45
1330-20-7	Xylenes, Total	45.3		2.0	0.24
98-06-6	tert-Butylbenzene	23.2		1.0	0.26
106-93-4	1,2-Dibromoethane	23.1		1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-278855/4

Matrix: Water Lab File ID: UXM2602.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/14/2017 18:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 278855 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	109		73-120
1868-53-7	Dibromofluoromethane (Surr)	86		69-124
460-00-4	4-Bromofluorobenzene (Surr)	98		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-79341-F-1 MS

Matrix: Water | Lab File ID: UXM2627.D

Analysis Method: 8260C | Date Collected: 05/09/2017 07:50

Sample wt/vol: 5(mL) | Date Analyzed: 05/15/2017 04:12

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278854 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	37.1		2.0	0.92
71-55-6	1,1,1-Trichloroethane	33.4		2.0	0.46
79-34-5	1,1,2,2-Tetrachloroethane	1.01	J	2.0	0.64
75-34-3	1,1-Dichloroethane	37.2		2.0	0.50
75-35-4	1,1-Dichloroethene	40.2		2.0	0.54
96-18-4	1,2,3-Trichloropropane	45.6		2.0	1.1
96-12-8	1,2-Dibromo-3-Chloropropane	38.0		4.0	0.94
107-06-2	1,2-Dichloroethane	36.8		2.0	0.60
78-87-5	1,2-Dichloropropane	39.2		2.0	0.60
78-93-3	2-Butanone (MEK)	75.2		20	2.0
591-78-6	2-Hexanone	91.2		20	2.5
108-10-1	4-Methyl-2-pentanone (MIBK)	81.9		20	1.4
67-64-1	Acetone	62.9		20	3.5
71-43-2	Benzene	114		2.0	0.56
75-25-2	Bromoform	33.7		2.0	0.86
74-83-9	Bromomethane	33.1		2.0	0.84
75-15-0	Carbon disulfide	28.3		2.0	0.68
56-23-5	Carbon tetrachloride	31.0		2.0	0.70
108-90-7	Chlorobenzene	40.6		2.0	0.64
124-48-1	Dibromochloromethane	38.7		2.0	0.50
75-00-3	Chloroethane	42.4		2.0	0.82
67-66-3	Chloroform	34.4		2.0	0.62
74-87-3	Chloromethane	34.5		2.0	0.86
156-59-2	cis-1,2-Dichloroethene	35.1		2.0	0.60
10061-01-5	cis-1,3-Dichloropropene	35.4		2.0	0.52
74-95-3	Dibromomethane	33.2		2.0	0.92
75-71-8	Dichlorodifluoromethane	34.9		2.0	1.0
75-27-4	Bromodichloromethane	34.0		2.0	0.60
100-41-4	Ethylbenzene	43.4		2.0	0.52
75-09-2	Methylene Chloride	33.1		2.0	1.1
179601-23-1	m-Xylene & p-Xylene	57.5		4.0	0.48
95-47-6	o-Xylene	53.3		2.0	0.56
100-42-5	Styrene	38.8		2.0	0.46
127-18-4	Tetrachloroethene	40.0		2.0	0.60
108-88-3	Toluene	54.5		2.0	0.46
156-60-5	trans-1,2-Dichloroethene	36.4		2.0	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-79341-F-1 MS

Matrix: Water | Lab File ID: UXM2627.D

Analysis Method: 8260C | Date Collected: 05/09/2017 07:50

Sample wt/vol: 5(mL) | Date Analyzed: 05/15/2017 04:12

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278854 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	37.3		2.0	0.62
79-01-6	Trichloroethene	61.2		2.0	0.66
75-69-4	Trichlorofluoromethane	32.3		2.0	1.0
108-05-4	Vinyl acetate	0.56	U	4.0	0.56
75-01-4	Vinyl chloride	37.7		2.0	0.90
1330-20-7	Xylenes, Total	111		4.0	0.48
106-93-4	1,2-Dibromoethane	42.5		2.0	0.46

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-120
1868-53-7	Dibromofluoromethane (Surr)	77		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-79341-F-1 MSD

Matrix: Water | Lab File ID: UXM2628.D

Analysis Method: 8260C | Date Collected: 05/09/2017 07:50

Sample wt/vol: 5(mL) | Date Analyzed: 05/15/2017 04:34

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278854 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	36.7		2.0	0.92
71-55-6	1,1,1-Trichloroethane	33.0		2.0	0.46
79-34-5	1,1,2,2-Tetrachloroethane	0.972	J	2.0	0.64
75-34-3	1,1-Dichloroethane	36.4		2.0	0.50
75-35-4	1,1-Dichloroethene	36.0		2.0	0.54
96-18-4	1,2,3-Trichloropropane	47.2		2.0	1.1
96-12-8	1,2-Dibromo-3-Chloropropane	40.5		4.0	0.94
107-06-2	1,2-Dichloroethane	33.7		2.0	0.60
78-87-5	1,2-Dichloropropane	39.1		2.0	0.60
78-93-3	2-Butanone (MEK)	78.9		20	2.0
591-78-6	2-Hexanone	93.8		20	2.5
108-10-1	4-Methyl-2-pentanone (MIBK)	83.3		20	1.4
67-64-1	Acetone	59.5		20	3.5
71-43-2	Benzene	107		2.0	0.56
75-25-2	Bromoform	37.0		2.0	0.86
74-83-9	Bromomethane	31.1		2.0	0.84
75-15-0	Carbon disulfide	25.5		2.0	0.68
56-23-5	Carbon tetrachloride	30.6		2.0	0.70
108-90-7	Chlorobenzene	40.5		2.0	0.64
124-48-1	Dibromochloromethane	38.9		2.0	0.50
75-00-3	Chloroethane	38.2		2.0	0.82
67-66-3	Chloroform	32.7		2.0	0.62
74-87-3	Chloromethane	33.7		2.0	0.86
156-59-2	cis-1,2-Dichloroethene	34.1		2.0	0.60
10061-01-5	cis-1,3-Dichloropropene	34.7		2.0	0.52
74-95-3	Dibromomethane	32.3		2.0	0.92
75-71-8	Dichlorodifluoromethane	33.3		2.0	1.0
75-27-4	Bromodichloromethane	32.0		2.0	0.60
100-41-4	Ethylbenzene	42.2		2.0	0.52
75-09-2	Methylene Chloride	33.9		2.0	1.1
179601-23-1	m-Xylene & p-Xylene	57.3		4.0	0.48
95-47-6	o-Xylene	54.8		2.0	0.56
100-42-5	Styrene	40.5		2.0	0.46
127-18-4	Tetrachloroethene	41.2		2.0	0.60
108-88-3	Toluene	56.3		2.0	0.46
156-60-5	trans-1,2-Dichloroethene	35.6		2.0	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-79341-F-1 MSD

Matrix: Water | Lab File ID: UXM2628.D

Analysis Method: 8260C | Date Collected: 05/09/2017 07:50

Sample wt/vol: 5(mL) | Date Analyzed: 05/15/2017 04:34

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 278854 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	38.8		2.0	0.62
79-01-6	Trichloroethene	61.1		2.0	0.66
75-69-4	Trichlorofluoromethane	30.5		2.0	1.0
108-05-4	Vinyl acetate	0.56	U	4.0	0.56
75-01-4	Vinyl chloride	37.2		2.0	0.90
1330-20-7	Xylenes, Total	112		4.0	0.48
106-93-4	1,2-Dibromoethane	42.5		2.0	0.46

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		73-120
1868-53-7	Dibromofluoromethane (Surr)	80		69-124
460-00-4	4-Bromofluorobenzene (Surr)	98		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		61-138

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A3UX16 Start Date: 03/29/2017 13:36

Analysis Batch Number: 272262 End Date: 03/29/2017 21:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272262/1		03/29/2017 13:36	1	BFB5200.D	DB-624 0.18(mm)
STD8260 240-272262/6 IC		03/29/2017 14:02	1	UXM1388.D	DB-624 0.18(mm)
STD8260 240-272262/7 IC		03/29/2017 14:25	1	UXM1389.D	DB-624 0.18(mm)
STD8260 240-272262/8 IC		03/29/2017 14:48	1	UXM1390.D	DB-624 0.18(mm)
ICIS 240-272262/9		03/29/2017 15:11	1	UXM1391.D	DB-624 0.18(mm)
STD8260 240-272262/10 IC		03/29/2017 15:34	1	UXM1392.D	DB-624 0.18(mm)
STD8260 240-272262/11 IC		03/29/2017 15:56	1	UXM1393.D	DB-624 0.18(mm)
STDA9 240-272262/13 IC		03/29/2017 16:47	1	UXM1395.D	DB-624 0.18(mm)
STDA9 240-272262/14 IC		03/29/2017 17:10	1	UXM1396.D	DB-624 0.18(mm)
STDA9 240-272262/15 IC		03/29/2017 17:33	1	UXM1397.D	DB-624 0.18(mm)
STDA9 240-272262/16 IC		03/29/2017 17:55	1	UXM1398.D	DB-624 0.18(mm)
STDA9 240-272262/17 IC		03/29/2017 18:18	1	UXM1399.D	DB-624 0.18(mm)
STDA9 240-272262/18 IC		03/29/2017 18:41	1	UXM1400.D	DB-624 0.18(mm)
ICV 240-272262/20		03/29/2017 19:27	1	UXM1402.D	DB-624 0.18(mm)
ICV 240-272262/21		03/29/2017 19:50	1	UXM1403.D	DB-624 0.18(mm)
MDLV 240-272262/22		03/29/2017 20:13	1		DB-624 0.18(mm)
MDLV 240-272262/23		03/29/2017 20:37	1		DB-624 0.18(mm)
MDLV 240-272262/24		03/29/2017 21:00	1		DB-624 0.18(mm)
ZZZZZ		03/29/2017 21:23	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A3UX16 Start Date: 03/29/2017 13:36

Analysis Batch Number: 272263 End Date: 03/29/2017 21:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-272263/1		03/29/2017 13:36	1	BFB5200.D	DB-624 0.18(mm)
STD8260 240-272263/6 IC		03/29/2017 14:02	1	UXM1388.D	DB-624 0.18(mm)
STD8260 240-272263/7 IC		03/29/2017 14:25	1	UXM1389.D	DB-624 0.18(mm)
STD8260 240-272263/8 IC		03/29/2017 14:48	1	UXM1390.D	DB-624 0.18(mm)
ICIS 240-272263/9		03/29/2017 15:11	1	UXM1391.D	DB-624 0.18(mm)
STD8260 240-272263/10 IC		03/29/2017 15:34	1	UXM1392.D	DB-624 0.18(mm)
STD8260 240-272263/11 IC		03/29/2017 15:56	1	UXM1393.D	DB-624 0.18(mm)
STDA9 240-272263/13 IC		03/29/2017 16:47	1	UXM1395.D	DB-624 0.18(mm)
STDA9 240-272263/14 IC		03/29/2017 17:10	1	UXM1396.D	DB-624 0.18(mm)
STDA9 240-272263/15 IC		03/29/2017 17:33	1	UXM1397.D	DB-624 0.18(mm)
STDA9 240-272263/16 IC		03/29/2017 17:55	1	UXM1398.D	DB-624 0.18(mm)
STDA9 240-272263/17 IC		03/29/2017 18:18	1	UXM1399.D	DB-624 0.18(mm)
STDA9 240-272263/18 IC		03/29/2017 18:41	1	UXM1400.D	DB-624 0.18(mm)
ICV 240-272263/20		03/29/2017 19:27	1	UXM1402.D	DB-624 0.18(mm)
ICV 240-272263/21		03/29/2017 19:50	1	UXM1403.D	DB-624 0.18(mm)
MDLV 240-272263/22		03/29/2017 20:13	1		DB-624 0.18(mm)
MDLV 240-272263/23		03/29/2017 20:37	1		DB-624 0.18(mm)
MDLV 240-272263/24		03/29/2017 21:00	1		DB-624 0.18(mm)
ZZZZZ		03/29/2017 21:23	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A3UX16 Start Date: 05/14/2017 17:42

Analysis Batch Number: 278854 End Date: 05/15/2017 04:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-278854/1		05/14/2017 17:42	1	BFB5254.D	DB-624 0.18(mm)
CCVIS 240-278854/3		05/14/2017 18:08	1	UXM2601.D	DB-624 0.18(mm)
LCS 240-278854/4		05/14/2017 18:32	1	UXM2602.D	DB-624 0.18(mm)
CCV 240-278854/5		05/14/2017 18:55	1	UXM2603.D	DB-624 0.18(mm)
MDLV 240-278854/6		05/14/2017 19:18	1		DB-624 0.18(mm)
MB 240-278854/7		05/14/2017 19:42	1	UXM2605.D	DB-624 0.18(mm)
ZZZZZ		05/14/2017 20:05	2		DB-624 0.18(mm)
ZZZZZ		05/14/2017 20:28	2000		DB-624 0.18(mm)
ZZZZZ		05/14/2017 20:51	2000		DB-624 0.18(mm)
ZZZZZ		05/14/2017 21:14	1		DB-624 0.18(mm)
ZZZZZ		05/14/2017 21:38	1		DB-624 0.18(mm)
ZZZZZ		05/14/2017 22:01	1		DB-624 0.18(mm)
ZZZZZ		05/15/2017 03:02	200		DB-624 0.18(mm)
ZZZZZ		05/15/2017 03:25	200		DB-624 0.18(mm)
ZZZZZ		05/15/2017 03:49	1		DB-624 0.18(mm)
240-79341-F-1 MS		05/15/2017 04:12	2	UXM2627.D	DB-624 0.18(mm)
240-79341-F-1 MSD		05/15/2017 04:34	2	UXM2628.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A3UX16 Start Date: 05/14/2017 17:42

Analysis Batch Number: 278855 End Date: 05/15/2017 02:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-278855/1		05/14/2017 17:42	1	BFB5254.D	DB-624 0.18(mm)
CCVIS 240-278855/3		05/14/2017 18:08	1	UXM2601.D	DB-624 0.18(mm)
LCS 240-278855/4		05/14/2017 18:32	1	UXM2602.D	DB-624 0.18(mm)
CCV 240-278855/5		05/14/2017 18:55	1	UXM2603.D	DB-624 0.18(mm)
MDLV 240-278855/6		05/14/2017 19:18	1		DB-624 0.18(mm)
MB 240-278855/7		05/14/2017 19:42	1	UXM2605.D	DB-624 0.18(mm)
240-79233-1		05/14/2017 22:24	1	UXM2612.D	DB-624 0.18(mm)
ZZZZZ		05/14/2017 22:48	6.67		DB-624 0.18(mm)
240-79233-3		05/14/2017 23:11	1	UXM2614.D	DB-624 0.18(mm)
ZZZZZ		05/14/2017 23:34	1		DB-624 0.18(mm)
ZZZZZ		05/15/2017 00:20	1		DB-624 0.18(mm)
ZZZZZ		05/15/2017 00:43	1		DB-624 0.18(mm)
ZZZZZ		05/15/2017 01:06	1		DB-624 0.18(mm)
ZZZZZ		05/15/2017 01:53	1		DB-624 0.18(mm)
ZZZZZ		05/15/2017 02:16	1		DB-624 0.18(mm)
ZZZZZ		05/15/2017 02:39	1		DB-624 0.18(mm)

Method 8082A

Polychlorinated Biphenyls (PCBs) (GC) by Method 8082A

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): CLP-2 (0.53 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TCX1 #	DCBP1 #
WC-MRCGW-050417	240-79233-3	51	41
	MB 240-278366/21-A	62	79
	LCS 240-278366/22-A	57	73
	240-79239-X-1-A MS	53	26
	240-79239-V-1-A MSD	59	23

	QC LIMITS
TCX = Tetrachloro-m-xylene	21-120
DCBP = DCB Decachlorobiphenyl	10-120

Column to be used to flag recovery values

FORM II 8082A

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SIG1051210.D

Lab ID: LCS 240-278366/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	2.50	1.37	55	32-120	
Aroclor-1260	2.50	1.55	62	36-120	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
PCBS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SIG1051215.D

Lab ID: 240-79239-X-1-A MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Aroclor-1016	2.40	0.048 U	1.33	55	24-121	p
Aroclor-1260	2.40	0.038 U	1.51	63	10-120	p

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
PCBS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SIG1051216.D

Lab ID: 240-79239-V-1-A MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Aroclor-1016	2.40	1.31	55	54	30	24-121	F2
Aroclor-1260	2.40	1.31	54	60	30	10-120	F2

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: MB 240-278366/21-A

Matrix: Water Date Extracted: 05/10/2017 12:10

Lab File ID:(1) SIG1051209.D Lab File ID:(2) SIG1051209.D

Date Analyzed:(1) 05/12/2017 08:17 Date Analyzed:(2) 05/12/2017 08:17

Instrument ID:(1) A2HP13 Instrument ID:(2) A2HP13

GC Column:(1) CLP-2 (0.53m ID: 0.53(mm) GC Column:(2) CLP-1 (0.53m ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-278366/22-A	05/12/2017 08:36	05/12/2017 08:36
	240-79239-X-1-A MS	05/12/2017 10:08	05/12/2017 10:08
	240-79239-V-1-A MSD	05/12/2017 10:26	05/12/2017 10:26
WC-MRCGW-050417	240-79233-3	05/12/2017 13:11	05/12/2017 13:11

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Sample No.: STD05 240-277809/31 Date Analyzed: 05/08/2017 02:18

Instrument ID: A2HP13 GC Column: CLP-1 (0.53mm) ID: 0.53(mm)

Lab File ID (Standard): SIG1050731.D Heated Purge: (Y/N) N

Calibration ID: 39805

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		70635034	1.83				
UPPER LIMIT		141270068	2.33				
LOWER LIMIT		35317517	1.33				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-277809/34		72326371	1.83				
ICV 240-277809/35		70974975	1.83				
ICV 240-277809/36		70970011	1.83				
ICV 240-277809/37		69747973	1.83				
ICV 240-277809/38		71686527	1.83				
ICV 240-277809/39		70288249	1.83				
ICV 240-277809/40		72481680	1.83				
ICV 240-277809/41		71407685	1.83				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Sample No.: STD05 240-277809/31 Date Analyzed: 05/08/2017 02:18

Instrument ID: A2HP13 GC Column: CLP-2 (0.53mm) ID: 0.53(mm)

Lab File ID (Standard): SIG1050731.D Heated Purge: (Y/N) N

Calibration ID: 39806

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		43520499	2.27				
UPPER LIMIT		87040998	2.77				
LOWER LIMIT		21760250	1.77				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-277809/34		45131761	2.27				
ICV 240-277809/35		44410384	2.27				
ICV 240-277809/36		44020939	2.27				
ICV 240-277809/37		43239560	2.27				
ICV 240-277809/38		44834023	2.27				
ICV 240-277809/39		43928674	2.27				
ICV 240-277809/40		45025952	2.27				
ICV 240-277809/41		44490479	2.27				
CCV 240-278618/3 CCVIS		43757814	2.27				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Sample No.: CCV 240-278618/3 Date Analyzed: 05/12/2017 06:27

Instrument ID: A2HP13 GC Column: CLP-2 (0.53mm) ID: 0.53(mm)

Lab File ID (Standard): SIG1051203.D Heated Purge: (Y/N) N

Calibration ID: 39806

		BNB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		43757814	2.27				
UPPER LIMIT		87515628	2.77				
LOWER LIMIT		21878907	1.77				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-278618/4		44362328	2.27				
CCV 240-278618/5		44832494	2.27				
CCV 240-278618/6		45632156	2.27				
CCV 240-278618/7		44664739	2.27				
MB 240-278366/21-A		40647464	2.27				
LCS 240-278366/22-A		46955151	2.27				
240-79239-X-1-A MS		38340463	2.27				
240-79239-V-1-A MSD		39598683	2.27				
240-79233-3	WC-MRCGW-050417	46451541	2.27				

BNB = 1-Bromo-2-nitrobenzene

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Client Sample ID: Lab Sample ID: 240-79239-X-1-A MS

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 05/12/2017 10:08 Date Analyzed (2): 05/12/2017 10:08

GC Column (1): CLP-2 (0.53mm ID: 0.53(mm) GC Column (2): CLP-1 (0.53mm ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1016	1	1	4.78	4.76	4.80	1.43	1.33	53.4
		2	5.47	5.44	5.48	0.919		
		3	6.17	6.15	6.19	1.46		
		4	6.36	6.34	6.38	1.38		
		5	6.97	6.95	6.99	1.45		
	2	1	3.57	3.55	3.59	2.33	2.29	
		2	4.18	4.16	4.19	2.83		
		3	4.92	4.90	4.93	1.58		
		4	5.11	5.10	5.13	2.32		
		5	5.49	5.47	5.51	2.40		
Aroclor-1260	1	1	8.29	8.27	8.31	1.53	1.51	46.8
		2	8.48	8.47	8.50	1.51		
		3	8.80	8.78	8.82	1.58		
		4	9.34	9.32	9.36	1.46		
		5	9.64	9.62	9.66	1.46		
	2	1	7.27	7.26	7.29	2.56	2.43	
		2	7.56	7.55	7.58	2.55		
		3	7.95	7.93	7.97	2.30		
		4	8.45	8.44	8.47	2.33		
		5	8.70	8.68	8.72	2.42		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Client Sample ID: Lab Sample ID: 240-79239-V-1-A MSD

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 05/12/2017 10:26 Date Analyzed (2): 05/12/2017 10:26

GC Column (1): CLP-2 (0.53mm ID: 0.53(mm) GC Column (2): CLP-1 (0.53mm ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1016	1	1	4.78	4.76	4.80	1.36	1.31	6.4
		2	5.46	5.44	5.48	1.01		
		3	6.17	6.15	6.19	1.41		
		4	6.36	6.34	6.38	1.39		
		5	6.97	6.95	6.99	1.40		
	2	1	3.57	3.55	3.59	1.47	1.40	
		2	4.18	4.16	4.19	1.50		
		3	4.92	4.90	4.93	1.07		
		4	5.12	5.10	5.13	1.29		
		5	5.49	5.47	5.51	1.68		
Aroclor-1260	1	1	8.29	8.27	8.31	1.39	1.31	4.2
		2	8.49	8.47	8.50	1.34		
		3	8.80	8.78	8.82	1.40		
		4	9.34	9.32	9.36	1.21		
		5	9.64	9.62	9.66	1.20		
	2	1	7.28	7.26	7.29	1.47	1.36	
		2	7.57	7.55	7.58	1.47		
		3	7.95	7.93	7.97	1.29		
		4	8.46	8.44	8.47	1.26		
		5	8.70	8.68	8.72	1.32		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-278366/22-A

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 05/12/2017 08:36 Date Analyzed (2): 05/12/2017 08:36

GC Column (1): CLP-2 (0.53mm ID: 0.53(mm) GC Column (2): CLP-1 (0.53mm ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1016	1	1	4.78	4.76	4.80	1.38	1.37	17.4
		2	5.46	5.44	5.48	1.31		
		3	6.17	6.15	6.19	1.38		
		4	6.36	6.34	6.38	1.40		
		5	6.97	6.95	6.99	1.38		
	2	1	3.57	3.55	3.59	1.58	1.63	
		2	4.17	4.16	4.19	1.58		
		3	4.92	4.90	4.93	1.31		
		4	5.11	5.10	5.13	1.58		
		5	5.49	5.47	5.51	2.11		
Aroclor-1260	1	1	8.29	8.27	8.31	1.52	1.55	17.9
		2	8.48	8.47	8.50	1.51		
		3	8.80	8.78	8.82	1.59		
		4	9.34	9.32	9.36	1.55		
		5	9.64	9.62	9.66	1.59		
	2	1	7.28	7.26	7.29	1.81	1.86	
		2	7.57	7.55	7.58	1.85		
		3	7.95	7.93	7.97	1.74		
		4	8.45	8.44	8.47	2.03		
		5	8.70	8.68	8.72	1.86		

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: WC-MRCGW-050417 | Lab Sample ID: 240-79233-3

Matrix: Water | Lab File ID: SIG1051225.D

Analysis Method: 8082A | Date Collected: 05/04/2017 11:00

Extraction Method: 3520C | Date Extracted: 05/10/2017 12:10

Sample wt/vol: 1030(mL) | Date Analyzed: 05/12/2017 13:11

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 (0.53mm) ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 278618 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	0.049	U	0.097	0.049
11104-28-2	Aroclor-1221	0.087	U	0.097	0.087
11141-16-5	Aroclor-1232	0.068	U	0.097	0.068
53469-21-9	Aroclor-1242	0.058	U	0.097	0.058
12672-29-6	Aroclor-1248	0.049	U	0.097	0.049
11097-69-1	Aroclor-1254	0.029	U	0.097	0.029
11096-82-5	Aroclor-1260	0.039	U	0.097	0.039

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	51		21-120
2051-24-3	DCB Decachlorobiphenyl	41		10-120

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 18:02 Calibration End Date: 05/07/2017 19:34 Calibration ID: 39781

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/4	SIG1050704.D
Level 2	STD01 240-277809/5	SIG1050705.D
Level 3	STD02 240-277809/6	SIG1050706.D
Level 4	STD05 240-277809/7	SIG1050707.D
Level 5	STD1 240-277809/8	SIG1050708.D
Level 6	std1.5 1232 1262	SIG1050709.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1232 Peak 1	0.0276 0.0195	0.0266	0.0246	0.0214	0.0204	Lin1	0.0006	0.0197							0.9980		0.9900
PCB-1232 Peak 2	0.0206 0.0157	0.0206	0.0193	0.0171	0.0163	Lin1	0.0004	0.0159							0.9980		0.9900
PCB-1232 Peak 3	0.0411 0.0334	0.0405	0.0383	0.0349	0.0340	Lin1	0.0006	0.0334							0.9990		0.9900
PCB-1232 Peak 4	0.0170 0.0144	0.0177	0.0168	0.0153	0.0147	Lin1	0.0002	0.0145							0.9990		0.9900
PCB-1232 Peak 5	0.0060 0.0054	0.0067	0.0064	0.0057	0.0055	Lin1	0.0001	0.0054							0.9980		0.9900
PCB-1262 Peak 1	0.0530 0.0435	0.0521	0.0504	0.0455	0.0445	Lin1	0.0007	0.0436							0.9990		0.9900
PCB-1262 Peak 2	0.0670 0.0554	0.0588	0.0552	0.0552	0.0540	Lin1	0.0005	0.0543							1.0000		0.9900
PCB-1262 Peak 3	0.0585 0.0493	0.0584	0.0557	0.0511	0.0500	Lin1	0.0007	0.0493							0.9990		0.9900
PCB-1262 Peak 4	0.1235 0.0983	0.1244	0.1102	0.1021	0.1000	Lin1	0.0018	0.0980							0.9990		0.9900
PCB-1262 Peak 5	0.0521 0.0410	0.0499	0.0468	0.0425	0.0411	Lin1	0.0008	0.0407							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 18:02 Calibration End Date: 05/07/2017 19:34 Calibration ID: 39781

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/4	SIG1050704.D
Level 2	STD01 240-277809/5	SIG1050705.D
Level 3	STD02 240-277809/6	SIG1050706.D
Level 4	STD05 240-277809/7	SIG1050707.D
Level 5	STD1 240-277809/8	SIG1050708.D
Level 6	std1.5 1232 1262	SIG1050709.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	BNB	Lin1	1813469 39193101	3575947	6595498	14506772	26987743	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	BNB	Lin1	1352038 31603439	2768095	5179631	11587186	21580878	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	BNB	Lin1	2705048 67130636	5440910	10253243	23589135	45049569	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	BNB	Lin1	1116557 28863174	2372033	4487264	10320083	19540332	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	BNB	Lin1	397494 10787770	893046	1726608	3888654	7314236	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 1	BNB	Lin1	3487531 87284472	6996276	13494066	30780531	58934736	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 2	BNB	Lin1	4407525 111228253	7890293	14774968	37313488	71519277	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 3	BNB	Lin1	3846507 98971728	7844641	14927318	34566670	66293584	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 4	BNB	Lin1	8120200 197445865	16703622	29516867	69072043	132561293	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 5	BNB	Lin1	3423149 82440732	6700131	12531355	28744792	54497877	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 18:02 Calibration End Date: 05/07/2017 19:34 Calibration ID: 39782

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/4	SIG1050704.D
Level 2	STD01 240-277809/5	SIG1050705.D
Level 3	STD02 240-277809/6	SIG1050706.D
Level 4	STD05 240-277809/7	SIG1050707.D
Level 5	STD1 240-277809/8	SIG1050708.D
Level 6	std1.5 1232 1262	SIG1050709.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1232 Peak 1	0.0287 0.0200	0.0275	0.0251	0.0217	0.0206	Lin1	0.0006	0.0200							0.9980		0.9900
PCB-1232 Peak 2	0.0233 0.0170	0.0233	0.0215	0.0186	0.0176	Lin1	0.0005	0.0171							0.9970		0.9900
PCB-1232 Peak 3	0.0444 0.0338	0.0424	0.0392	0.0348	0.0343	Lin1	0.0007	0.0335							0.9990		0.9900
PCB-1232 Peak 4	0.0175 0.0139	0.0173	0.0159	0.0136	0.0144	Lin1	0.0002	0.0138							0.9990		0.9900
PCB-1232 Peak 5	0.0137 0.0100	0.0159	0.0142	0.0110	0.0103	Lin1	0.0004	0.0100							0.9910		0.9900
PCB-1262 Peak 1	0.0493 0.0415	0.0528	0.0460	0.0415	0.0413	Lin1	0.0007	0.0409							0.9990		0.9900
PCB-1262 Peak 2	0.0748 0.0625	0.0737	0.0674	0.0618	0.0619	Lin1	0.0009	0.0615							1.0000		0.9900
PCB-1262 Peak 3	0.0646 0.0537	0.0633	0.0583	0.0531	0.0534	Lin1	0.0007	0.0529							1.0000		0.9900
PCB-1262 Peak 4	0.1352 0.1196	0.1347	0.1271	0.1157	0.1180	Lin1	0.0012	0.1176							0.9990		0.9900
PCB-1262 Peak 5	0.0913 0.0824	0.0919	0.0866	0.0797	0.0813	Lin1	0.0007	0.0811							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 18:02 Calibration End Date: 05/07/2017 19:34 Calibration ID: 39782

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/4	SIG1050704.D
Level 2	STD01 240-277809/5	SIG1050705.D
Level 3	STD02 240-277809/6	SIG1050706.D
Level 4	STD05 240-277809/7	SIG1050707.D
Level 5	STD1 240-277809/8	SIG1050708.D
Level 6	std1.5 1232 1262	SIG1050709.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	BNB	Lin1	1148909 24657795	2234414	4123893	9046049	16795285	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	BNB	Lin1	930239 20969547	1888752	3524467	7777381	14314252	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	BNB	Lin1	1774740 41726470	3445114	6428901	14527297	27942006	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	BNB	Lin1	697599 17219280	1408244	2616527	5693881	11692474	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	BNB	Lin1	546207 12361550	1291629	2323211	4568203	8428100	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 1	BNB	Lin1	1969139 51328639	4284422	7545182	17326611	33638532	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 2	BNB	Lin1	2988796 77295948	5988930	11064519	25791354	50443763	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 3	BNB	Lin1	2583793 66431632	5139600	9570844	22139294	43485391	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 4	BNB	Lin1	5405821 147790136	10939916	20861790	48282761	96140643	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1262 Peak 5	BNB	Lin1	3649593 101883586	7461720	14225828	33236222	66229862	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 19:53 Calibration End Date: 05/07/2017 21:24 Calibration ID: 39787

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/10	SIG1050710.D
Level 2	STD01 240-277809/11	SIG1050711.D
Level 3	STD02 240-277809/12	SIG1050712.D
Level 4	STD05 240-277809/13	SIG1050713.D
Level 5	STD1 240-277809/14	SIG1050714.D
Level 6	std1.5 1242 1268	SIG1050715.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1242 Peak 1	0.0261 0.0178	0.0240	0.0223	0.0198	0.0183	Lin1	0.0005	0.0179							0.9980		0.9900
PCB-1242 Peak 2	0.0485 0.0335	0.0446	0.0411	0.0367	0.0343	Lin1	0.0010	0.0335							0.9990		0.9900
PCB-1242 Peak 3	0.0957 0.0744	0.0894	0.0841	0.0780	0.0750	Lin1	0.0014	0.0740							1.0000		0.9900
PCB-1242 Peak 4	0.0419 0.0318	0.0392	0.0370	0.0338	0.0321	Lin1	0.0007	0.0317							0.9990		0.9900
PCB-1242 Peak 5	0.0180 0.0132	0.0165	0.0158	0.0141	0.0134	Lin1	0.0003	0.0132							0.9990		0.9900
PCB-1268 Peak 1	0.1732 0.1419	0.1623	0.1601	0.1474	0.1403	Lin1	0.0021	0.1407							0.9990		0.9900
PCB-1268 Peak 2	0.1898 0.1435	0.1745	0.1645	0.1508	0.1455	Lin1	0.0029	0.1429							1.0000		0.9900
PCB-1268 Peak 3	0.1530 0.1233	0.1425	0.1376	0.1275	0.1228	Lin1	0.0019	0.1223							1.0000		0.9900
PCB-1268 Peak 4	0.0631 0.0538	0.0598	0.0583	0.0547	0.0532	Lin1	0.0006	0.0533							1.0000		0.9900
PCB-1268 Peak 5	0.4578 0.3567	0.4237	0.4096	0.3780	0.3600	Lin1	0.0065	0.3560							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 19:53 Calibration End Date: 05/07/2017 21:24 Calibration ID: 39787

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/10	SIG1050710.D
Level 2	STD01 240-277809/11	SIG1050711.D
Level 3	STD02 240-277809/12	SIG1050712.D
Level 4	STD05 240-277809/13	SIG1050713.D
Level 5	STD1 240-277809/14	SIG1050714.D
Level 6	std1.5 1242 1268	SIG1050715.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	BNB	Lin1	1791053 37959718	3256820	6096224	13598626	25823984	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 2	BNB	Lin1	3324908 71360684	6047701	11253562	25192866	48489097	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 3	BNB	Lin1	6555388 158333775	12121988	22992065	53584728	105898329	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 4	BNB	Lin1	2868188 67609070	5317475	10108600	23216535	45306425	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 5	BNB	Lin1	1235169 28169072	2230693	4317208	9693858	18903618	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 1	BNB	Lin1	11866177 302028153	22005261	43780119	101298195	198255637	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 2	BNB	Lin1	12998322 305420933	23661955	44982974	103590271	205608120	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 3	BNB	Lin1	10479896 262273870	19316910	37642128	87617329	173548658	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 4	BNB	Lin1	4320928 114574956	8104428	15949126	37568033	75226007	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 5	BNB	Lin1	31356566 759106394	57449381	112039399	259689177	508576345	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 19:53 Calibration End Date: 05/07/2017 21:24 Calibration ID: 39788

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/10	SIG1050710.D
Level 2	STD01 240-277809/11	SIG1050711.D
Level 3	STD02 240-277809/12	SIG1050712.D
Level 4	STD05 240-277809/13	SIG1050713.D
Level 5	STD1 240-277809/14	SIG1050714.D
Level 6	std1.5 1242 1268	SIG1050715.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1242 Peak 1	0.0264 0.0183	0.0246	0.0227	0.0201	0.0186	Lin1	0.0005	0.0183							0.9980		0.9900
PCB-1242 Peak 2	0.0518 0.0346	0.0462	0.0424	0.0376	0.0350	Lin1	0.0011	0.0343							0.9990		0.9900
PCB-1242 Peak 3	0.0991 0.0764	0.0907	0.0855	0.0784	0.0754	Lin1	0.0014	0.0752							1.0000		0.9900
PCB-1242 Peak 4	0.0401 0.0306	0.0379	0.0358	0.0324	0.0303	Lin1	0.0007	0.0303							0.9990		0.9900
PCB-1242 Peak 5	0.0347 0.0237	0.0321	0.0283	0.0255	0.0240	Lin1	0.0007	0.0235							0.9990		0.9900
PCB-1268 Peak 1	0.2057 0.1859	0.1894	0.1858	0.1795	0.1784	Lin1	0.0009	0.1814							0.9990		0.9900
PCB-1268 Peak 2	0.2063 0.1834	0.1906	0.1872	0.1813	0.1779	Lin1	0.0012	0.1801							1.0000		0.9900
PCB-1268 Peak 3	0.1705 0.1558	0.1585	0.1553	0.1507	0.1500	Lin1	0.0007	0.1523							0.9990		0.9900
PCB-1268 Peak 4	0.0712 0.0627	0.0676	0.0641	0.0613	0.0606	Lin1	0.0005	0.0613							1.0000		0.9900
PCB-1268 Peak 5	0.4856 0.4680	0.4498	0.4548	0.4448	0.4499	Lin1	0.0002	0.4578							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 19:53 Calibration End Date: 05/07/2017 21:24 Calibration ID: 39788

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/10	SIG1050710.D
Level 2	STD01 240-277809/11	SIG1050711.D
Level 3	STD02 240-277809/12	SIG1050712.D
Level 4	STD05 240-277809/13	SIG1050713.D
Level 5	STD1 240-277809/14	SIG1050714.D
Level 6	std1.5 1242 1268	SIG1050715.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	BNB	Lin1	1107985 23907633	2063270	3827845	8458603	16107562	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 2	BNB	Lin1	2170918 45132224	3878630	7159711	15786649	30361523	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 3	BNB	Lin1	4154842 99682961	7612260	14436289	32932163	65422442	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 4	BNB	Lin1	1681229 39855726	3181918	6050674	13598100	26306649	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1242 Peak 5	BNB	Lin1	1455808 30923262	2690039	4780073	10691200	20847052	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 1	BNB	Lin1	8623648 242449440	15893811	31363820	75380080	154787339	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 2	BNB	Lin1	8647949 239174125	15999979	31591307	76139568	154334548	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 3	BNB	Lin1	7147531 203179653	13299303	26208284	63275779	130145990	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 4	BNB	Lin1	2983601 81737953	5676787	10815532	25754262	52586421	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1268 Peak 5	BNB	Lin1	20361891 610241670	37750832	76771242	186810183	390377185	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 21:43 Calibration End Date: 05/07/2017 23:15 Calibration ID: 39793

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/16	SIG1050716.D
Level 2	STD01 240-277809/17	SIG1050717.D
Level 3	STD02 240-277809/18	SIG1050718.D
Level 4	STD05 240-277809/19	SIG1050719.D
Level 5	STD1 240-277809/20	SIG1050720.D
Level 6	std1.5 1248	SIG1050721.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0216 0.0154	0.0207	0.0192	0.0172	0.0160	Lin1	0.0004	0.0155							0.9980		0.9900
PCB-1248 Peak 2	0.0550 0.0396	0.0509	0.0470	0.0438	0.0411	Lin1	0.0010	0.0399							0.9990		0.9900
PCB-1248 Peak 3	0.0448 0.0354	0.0414	0.0412	0.0397	0.0372	Lin1	0.0006	0.0362							0.9980		0.9900
PCB-1248 Peak 4	0.0371 0.0279	0.0350	0.0334	0.0317	0.0300	Lin1	0.0006	0.0287							0.9970		0.9900
PCB-1248 Peak 5	0.0227 0.0178	0.0223	0.0215	0.0208	0.0195	Lin1	0.0003	0.0186							0.9960		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 21:43 Calibration End Date: 05/07/2017 23:15 Calibration ID: 39793

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/16	SIG1050716.D
Level 2	STD01 240-277809/17	SIG1050717.D
Level 3	STD02 240-277809/18	SIG1050718.D
Level 4	STD05 240-277809/19	SIG1050719.D
Level 5	STD1 240-277809/20	SIG1050720.D
Level 6	std1.5 1248	SIG1050721.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	BNB	Lin1	1527922 33054870	2957100	5409549	12211859	22676468	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	BNB	Lin1	3886311 85012253	7256385	13278870	31099933	58227781	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	BNB	Lin1	3161479 76051647	5903316	11643657	28132183	52598547	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	BNB	Lin1	2616888 59984023	4997028	9426229	22461753	42451180	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	BNB	Lin1	1603999 38256161	3177826	6074138	14740506	27556917	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 21:43 Calibration End Date: 05/07/2017 23:15 Calibration ID: 39794

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/16	SIG1050716.D
Level 2	STD01 240-277809/17	SIG1050717.D
Level 3	STD02 240-277809/18	SIG1050718.D
Level 4	STD05 240-277809/19	SIG1050719.D
Level 5	STD1 240-277809/20	SIG1050720.D
Level 6	std1.5 1248	SIG1050721.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1248 Peak 1	0.0233 0.0155	0.0216	0.0201	0.0179	0.0163	Lin1	0.0005	0.0157							0.9960		0.9900
PCB-1248 Peak 2	0.0340 0.0224	0.0306	0.0280	0.0249	0.0232	Lin1	0.0007	0.0224							0.9980		0.9900
PCB-1248 Peak 3	0.0473 0.0303	0.0430	0.0377	0.0334	0.0310	Lin1	0.0011	0.0301							0.9980		0.9900
PCB-1248 Peak 4	0.0521 0.0387	0.0472	0.0465	0.0422	0.0393	Lin1	0.0009	0.0388							0.9990		0.9900
PCB-1248 Peak 5	0.0268 0.0208	0.0251	0.0248	0.0227	0.0212	Lin1	0.0004	0.0209							0.9980		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 21:43 Calibration End Date: 05/07/2017 23:15 Calibration ID: 39794

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/16	SIG1050716.D
Level 2	STD01 240-277809/17	SIG1050717.D
Level 3	STD02 240-277809/18	SIG1050718.D
Level 4	STD05 240-277809/19	SIG1050719.D
Level 5	STD1 240-277809/20	SIG1050720.D
Level 6	std1.5 1248	SIG1050721.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	BNB	Lin1	1013023 20452361	1878229	3459775	7781879	14090722	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	BNB	Lin1	1474965 29506449	2656729	4829841	10822029	20117282	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	BNB	Lin1	2052917 39887875	3735230	6500538	14522751	26800308	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	BNB	Lin1	2258481 51025922	4103349	8023237	18367877	34046794	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	BNB	Lin1	1162953 27454657	2177919	4279508	9878921	18339691	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 23:33 Calibration End Date: 05/08/2017 01:05 Calibration ID: 39799

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/22	SIG1050722.D
Level 2	STD01 240-277809/23	SIG1050723.D
Level 3	STD02 240-277809/24	SIG1050724.D
Level 4	STD05 240-277809/25	SIG1050725.D
Level 5	STD1 240-277809/26	SIG1050726.D
Level 6	std1.5 ar2154	SIG1050727.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	0.0131 0.0098	0.0127	0.0122	0.0110	0.0101	Lin1	0.0002	0.0099							0.9970		0.9900
PCB-1221 Peak 2	0.0095 0.0065	0.0090	0.0086	0.0075	0.0068	Lin1	0.0002	0.0066							0.9950		0.9900
PCB-1221 Peak 3	0.0331 0.0226	0.0311	0.0290	0.0258	0.0234	Lin1	0.0007	0.0228							0.9970		0.9900
PCB-1254 Peak 1	0.0526 0.0402	0.0505	0.0479	0.0437	0.0414	Lin1	0.0009	0.0405							0.9990		0.9900
PCB-1254 Peak 2	0.0661 0.0542	0.0654	0.0629	0.0583	0.0559	Lin1	0.0009	0.0548							0.9990		0.9900
PCB-1254 Peak 3	0.0480 0.0411	0.0485	0.0462	0.0432	0.0422	Lin1	0.0005	0.0414							0.9990		0.9900
PCB-1254 Peak 4	0.0492 0.0379	0.0482	0.0448	0.0409	0.0393	Lin1	0.0008	0.0382							0.9990		0.9900
PCB-1254 Peak 5	0.0688 0.0552	0.0673	0.0635	0.0589	0.0562	Lin1	0.0010	0.0554							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton | Job No.: 240-79233-1 | Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 | GC Column: CLP-1 (0.53 ID: 0.53(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 23:33 | Calibration End Date: 05/08/2017 01:05 | Calibration ID: 39799

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/22	SIG1050722.D
Level 2	STD01 240-277809/23	SIG1050723.D
Level 3	STD02 240-277809/24	SIG1050724.D
Level 4	STD05 240-277809/25	SIG1050725.D
Level 5	STD1 240-277809/26	SIG1050726.D
Level 6	std1.5 ar2154	SIG1050727.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	BNB	Lin1	884965 20155959	1729745	3406221	7610704	14355693	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	BNB	Lin1	642557 13404094	1223264	2403301	5159753	9633579	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	BNB	Lin1	2234908 46746169	4236413	8092962	17845643	33311847	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	BNB	Lin1	3547403 83139615	6875494	13335966	30235062	58928181	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	BNB	Lin1	4460822 112068735	8910234	17534112	40352317	79652431	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	BNB	Lin1	3238930 84906815	6612513	12863008	29916245	60103572	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	BNB	Lin1	3319146 78256877	6561566	12494854	28314915	55918899	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	BNB	Lin1	4641697 114139391	9167632	17689269	40746139	79994310	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton | Job No.: 240-79233-1 | Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 | GC Column: CLP-2 (0.53 ID: 0.53(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 23:33 | Calibration End Date: 05/08/2017 01:05 | Calibration ID: 39800

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/22	SIG1050722.D
Level 2	STD01 240-277809/23	SIG1050723.D
Level 3	STD02 240-277809/24	SIG1050724.D
Level 4	STD05 240-277809/25	SIG1050725.D
Level 5	STD1 240-277809/26	SIG1050726.D
Level 6	std1.5 ar2154	SIG1050727.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1221 Peak 1	0.0146 0.0099	0.0143	0.0129	0.0114	0.0104	Lin1	0.0003	0.0100							0.9960		0.9900
PCB-1221 Peak 2	0.0094 0.0066	0.0092	0.0087	0.0076	0.0069	Lin1	0.0002	0.0067							0.9950		0.9900
PCB-1221 Peak 3	0.0342 0.0231	0.0319	0.0298	0.0261	0.0239	Lin1	0.0008	0.0232							0.9970		0.9900
PCB-1254 Peak 1	0.0476 0.0337	0.0442	0.0409	0.0363	0.0341	Lin1	0.0009	0.0335							0.9990		0.9900
PCB-1254 Peak 2	0.0517 0.0381	0.0484	0.0456	0.0403	0.0382	Lin1	0.0009	0.0377							0.9990		0.9900
PCB-1254 Peak 3	0.0766 0.0552	0.0725	0.0634	0.0575	0.0555	Lin1	0.0014	0.0545							0.9990		0.9900
PCB-1254 Peak 4	0.0546 0.0426	0.0518	0.0486	0.0438	0.0422	Lin1	0.0008	0.0420							0.9990		0.9900
PCB-1254 Peak 5	0.0751 0.0577	0.0696	0.0657	0.0595	0.0566	Lin1	0.0011	0.0567							0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2017 23:33 Calibration End Date: 05/08/2017 01:05 Calibration ID: 39800

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/22	SIG1050722.D
Level 2	STD01 240-277809/23	SIG1050723.D
Level 3	STD02 240-277809/24	SIG1050724.D
Level 4	STD05 240-277809/25	SIG1050725.D
Level 5	STD1 240-277809/26	SIG1050726.D
Level 6	std1.5 ar2154	SIG1050727.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	BNB	Lin1	598094 12643054	1183810	2165238	4776206	8899634	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	BNB	Lin1	386151 8388723	761567	1461405	3195442	5928395	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	BNB	Lin1	1403297 29483121	2637538	5009619	10981574	20551601	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	BNB	Lin1	1954515 43026085	3658124	6888070	15277491	29265086	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	BNB	Lin1	2122727 48646247	4009794	7671282	16932046	32807317	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	BNB	Lin1	3143307 70580340	6000632	10666419	24199109	47674892	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	BNB	Lin1	2242210 54437689	4283324	8183730	18414970	36254564	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	BNB	Lin1	3082984 73791453	5760445	11053843	25037975	48663904	0.0500 1.50	0.100	0.200	0.500	1.00

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2017 01:23 Calibration End Date: 05/08/2017 02:55 Calibration ID: 39805

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/28	SIG1050728.D
Level 2	STD01 240-277809/29	SIG1050729.D
Level 3	STD02 240-277809/30	SIG1050730.D
Level 4	STD05 240-277809/31	SIG1050731.D
Level 5	STD1 240-277809/32	SIG1050732.D
Level 6	std1.5 1660	SIG1050733.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0289 0.0199	0.0271	0.0249	0.0231	0.0208	Lin1	0.0006	0.0202							0.9970		0.9900
PCB-1016 Peak 2	0.0532 0.0369	0.0502	0.0462	0.0433	0.0389	Lin1	0.0011	0.0377							0.9960		0.9900
PCB-1016 Peak 3	0.1069 0.0827	0.1020	0.0956	0.0928	0.0857	Lin1	0.0016	0.0839							0.9980		0.9900
PCB-1016 Peak 4	0.0462 0.0354	0.0453	0.0416	0.0400	0.0367	Lin1	0.0008	0.0359							0.9980		0.9900
PCB-1016 Peak 5	0.0190 0.0147	0.0191	0.0176	0.0166	0.0151	Lin1	0.0003	0.0149							0.9970		0.9900
PCB-1260 Peak 1	0.0649 0.0489	0.0617	0.0583	0.0559	0.0510	Lin1	0.0011	0.0498							0.9970		0.9900
PCB-1260 Peak 2	0.0976 0.0748	0.0929	0.0869	0.0844	0.0776	Lin1	0.0015	0.0760							0.9980		0.9900
PCB-1260 Peak 3	0.0528 0.0427	0.0516	0.0499	0.0483	0.0444	Lin1	0.0007	0.0436							0.9980		0.9900
PCB-1260 Peak 4	0.1244 0.0993	0.1296	0.1136	0.1111	0.1024	Lin1	0.0020	0.1005							0.9980		0.9900
PCB-1260 Peak 5	0.0626 0.0526	0.0615	0.0578	0.0570	0.0541	Lin1	0.0007	0.0532							0.9990		0.9900
Tetrachloro-m-xylene	1.2258 0.8932	1.1468	1.0729	1.0360	0.9588	Ave		1.0556				11.5		20.0			
DCB Decachlorobiphenyl	1.0658 0.7540	1.0153	0.9402	0.8706	0.8079	Ave		0.9089				13.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2017 01:23 Calibration End Date: 05/08/2017 02:55 Calibration ID: 39805

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/28	SIG1050728.D
Level 2	STD01 240-277809/29	SIG1050729.D
Level 3	STD02 240-277809/30	SIG1050730.D
Level 4	STD05 240-277809/31	SIG1050731.D
Level 5	STD1 240-277809/32	SIG1050732.D
Level 6	std1.5 1660	SIG1050733.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	BNB	Lin1	2069362 43814191	3801677	6923020	16325689	30036970	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	BNB	Lin1	3807144 81081955	7050926	12863553	30587578	56273181	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	BNB	Lin1	7652591 181728373	14312516	26609121	65560211	123863531	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	BNB	Lin1	3304997 77802762	6358323	11575486	28245142	52990936	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	BNB	Lin1	1356706 32235171	2685132	4886182	11717930	21876611	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	BNB	Lin1	4645037 107591050	8658647	16223944	39449759	73717051	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	BNB	Lin1	6987087 164426856	13036454	24194123	59610414	112186998	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	BNB	Lin1	3779764 93868461	7241113	13875272	34132110	64109930	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	BNB	Lin1	8902608 218296443	18193088	31599867	78463205	148041746	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	BNB	Lin1	4479367 115672414	8627633	16078476	40295455	78261194	0.0500 1.50	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	BNB	Ave	4386470 130916351	8048120	14928608	36589377	69297124	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
DCB Decachlorobiphenyl	BNB	Ave	3813977 110506960	7125145	13081699	30745782	58390972	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2017 01:23 Calibration End Date: 05/08/2017 02:55 Calibration ID: 39806

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/28	SIG1050728.D
Level 2	STD01 240-277809/29	SIG1050729.D
Level 3	STD02 240-277809/30	SIG1050730.D
Level 4	STD05 240-277809/31	SIG1050731.D
Level 5	STD1 240-277809/32	SIG1050732.D
Level 6	std1.5 1660	SIG1050733.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1016 Peak 1	0.0293 0.0200	0.0274	0.0253	0.0229	0.0207	Lin1	0.0006	0.0202							0.9970		0.9900
PCB-1016 Peak 2	0.0570 0.0382	0.0524	0.0479	0.0440	0.0399	Lin1	0.0012	0.0387							0.9970		0.9900
PCB-1016 Peak 3	0.1096 0.0850	0.1026	0.0967	0.0928	0.0868	Lin1	0.0016	0.0855							0.9990		0.9900
PCB-1016 Peak 4	0.0444 0.0340	0.0409	0.0406	0.0379	0.0350	Lin1	0.0007	0.0344							0.9980		0.9900
PCB-1016 Peak 5	0.0424 0.0265	0.0366	0.0337	0.0297	0.0272	Lin1	0.0010	0.0264							0.9980		0.9900
PCB-1260 Peak 1	0.0679 0.0534	0.0663	0.0607	0.0578	0.0545	Lin1	0.0010	0.0536							0.9990		0.9900
PCB-1260 Peak 2	0.0817 0.0652	0.0790	0.0729	0.0699	0.0662	Lin1	0.0011	0.0654							0.9990		0.9900
PCB-1260 Peak 3	0.1131 0.0886	0.1047	0.0969	0.0939	0.0894	Lin1	0.0015	0.0884							1.0000		0.9900
PCB-1260 Peak 4	0.1423 0.1239	0.1381	0.1309	0.1294	0.1247	Lin1	0.0012	0.1240							1.0000		0.9900
PCB-1260 Peak 5	0.0980 0.0821	0.0946	0.0880	0.0859	0.0827	Lin1	0.0010	0.0820							1.0000		0.9900
Tetrachloro-m-xylene	1.2473 0.9539	1.1981	1.0697	1.0439	0.9859	Ave		1.0831				10.8		20.0			
DCB Decachlorobiphenyl	1.0053 0.8212	0.9828	0.9108	0.8855	0.8462	Ave		0.9086				8.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-79233-1 Analy Batch No.: 277809

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 (0.53 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2017 01:23 Calibration End Date: 05/08/2017 02:55 Calibration ID: 39806

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-277809/28	SIG1050728.D
Level 2	STD01 240-277809/29	SIG1050729.D
Level 3	STD02 240-277809/30	SIG1050730.D
Level 4	STD05 240-277809/31	SIG1050731.D
Level 5	STD1 240-277809/32	SIG1050732.D
Level 6	std1.5 1660	SIG1050733.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	BNB	Lin1	1284264 27154285	2349731	4411379	9979693	18484938	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	BNB	Lin1	2500697 51984937	4488418	8355158	19149408	35601435	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	BNB	Lin1	4809959 115742675	8790610	16892643	40383952	77419881	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	BNB	Lin1	1949262 46229481	3501102	7080449	16514270	31226785	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	BNB	Lin1	1862849 36049481	3133906	5876358	12909922	24270337	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	BNB	Lin1	2980101 72685042	5680193	10596455	25176261	48567450	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	BNB	Lin1	3586923 88790102	6763348	12723815	30425197	59064982	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	BNB	Lin1	4963713 120624486	8971081	16910380	40852119	79718063	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	BNB	Lin1	6246862 168605274	11831424	22863150	56329630	111235883	0.0500 1.50	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	BNB	Lin1	4302707 111700559	8105336	15359735	37363507	73782485	0.0500 1.50	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	BNB	Ave	2737480 86550082	5131369	9338440	22715419	43966107	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
DCB Decachlorobiphenyl	BNB	Ave	2206366 74508461	4209009	7951478	19269351	37734522	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/34 Calibration Date: 05/08/2017 03:13

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 23:33

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 01:05

Lab File ID: SIG1050734.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0107		1.06	1.00	5.9	20.0
PCB-1221 Peak 2	Lin1		0.0072		1.06	1.00	5.9	20.0
PCB-1221 Peak 3	Lin1		0.0248		1.05	1.00	5.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/34 Calibration Date: 05/08/2017 03:13

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 23:33

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 01:05

Lab File ID: SIG1050734.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	3.25	3.23	3.27
PCB-1221 Peak 2	3.50	3.48	3.52
PCB-1221 Peak 3	3.57	3.55	3.59

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/34 Calibration Date: 05/08/2017 03:13

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 23:33

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 01:05

Lab File ID: SIG1050734.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0109		1.05	1.00	5.5	20.0
PCB-1221 Peak 2	Lin1		0.0073		1.06	1.00	5.5	20.0
PCB-1221 Peak 3	Lin1		0.0250		1.04	1.00	4.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/34 Calibration Date: 05/08/2017 03:13

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 23:33

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 01:05

Lab File ID: SIG1050734.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	4.43	4.41	4.45
PCB-1221 Peak 2	4.68	4.66	4.70
PCB-1221 Peak 3	4.78	4.76	4.80

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/35 Calibration Date: 05/08/2017 03:31

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 18:02

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 19:34

Lab File ID: SIG1050735.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0213		1.05	1.00	5.2	20.0
PCB-1232 Peak 2	Lin1		0.0180		1.11	1.00	11.3	20.0
PCB-1232 Peak 3	Lin1		0.0386		1.14	1.00	13.9	20.0
PCB-1232 Peak 4	Lin1		0.0164		1.12	1.00	11.7	20.0
PCB-1232 Peak 5	Lin1		0.0060		1.09	1.00	9.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/35 Calibration Date: 05/08/2017 03:31

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 18:02

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 19:34

Lab File ID: SIG1050735.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	3.57	3.55	3.59
PCB-1232 Peak 2	4.17	4.16	4.20
PCB-1232 Peak 3	4.92	4.90	4.94
PCB-1232 Peak 4	5.12	5.10	5.14
PCB-1232 Peak 5	5.49	5.48	5.51

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/35 Calibration Date: 05/08/2017 03:31

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 18:02

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 19:34

Lab File ID: SIG1050735.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0214		1.04	1.00	4.1	20.0
PCB-1232 Peak 2	Lin1		0.0193		1.10	1.00	10.0	20.0
PCB-1232 Peak 3	Lin1		0.0385		1.13	1.00	12.5	20.0
PCB-1232 Peak 4	Lin1		0.0158		1.12	1.00	12.2	20.0
PCB-1232 Peak 5	Lin1		0.0117		1.13	1.00	12.7	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/35 Calibration Date: 05/08/2017 03:31

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 18:02

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 19:34

Lab File ID: SIG1050735.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	4.78	4.77	4.81
PCB-1232 Peak 2	5.46	5.45	5.49
PCB-1232 Peak 3	6.17	6.16	6.20
PCB-1232 Peak 4	6.37	6.35	6.39
PCB-1232 Peak 5	6.97	6.96	7.00

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/36 Calibration Date: 05/08/2017 03:50

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 19:53

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 21:24

Lab File ID: SIG1050736.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0158		0.853	1.00	-14.7	20.0
PCB-1242 Peak 2	Lin1		0.0303		0.876	1.00	-12.4	20.0
PCB-1242 Peak 3	Lin1		0.0659		0.872	1.00	-12.8	20.0
PCB-1242 Peak 4	Lin1		0.0281		0.868	1.00	-13.2	20.0
PCB-1242 Peak 5	Lin1		0.0117		0.866	1.00	-13.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/36 Calibration Date: 05/08/2017 03:50

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 19:53

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 21:24

Lab File ID: SIG1050736.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	3.57	3.55	3.59
PCB-1242 Peak 2	4.17	4.16	4.19
PCB-1242 Peak 3	4.91	4.90	4.94
PCB-1242 Peak 4	5.11	5.10	5.14
PCB-1242 Peak 5	5.49	5.48	5.51

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/36 Calibration Date: 05/08/2017 03:50

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 19:53

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 21:24

Lab File ID: SIG1050736.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0160		0.844	1.00	-15.6	20.0
PCB-1242 Peak 2	Lin1		0.0309		0.868	1.00	-13.2	20.0
PCB-1242 Peak 3	Lin1		0.0660		0.859	1.00	-14.1	20.0
PCB-1242 Peak 4	Lin1		0.0267		0.859	1.00	-14.1	20.0
PCB-1242 Peak 5	Lin1		0.0215		0.885	1.00	-11.5	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/36 Calibration Date: 05/08/2017 03:50

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 19:53

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 21:24

Lab File ID: SIG1050736.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	4.78	4.77	4.80
PCB-1242 Peak 2	5.46	5.45	5.49
PCB-1242 Peak 3	6.17	6.16	6.20
PCB-1242 Peak 4	6.36	6.35	6.39
PCB-1242 Peak 5	6.97	6.96	6.99

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/37 Calibration Date: 05/08/2017 04:08

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 21:43

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 23:15

Lab File ID: SIG1050737.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0144		0.901	1.00	-9.9	20.0
PCB-1248 Peak 2	Lin1		0.0394		0.962	1.00	-3.8	20.0
PCB-1248 Peak 3	Lin1		0.0364		0.990	1.00	-1.0	20.0
PCB-1248 Peak 4	Lin1		0.0291		0.991	1.00	-0.9	20.0
PCB-1248 Peak 5	Lin1		0.0175		0.926	1.00	-7.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/37 Calibration Date: 05/08/2017 04:08

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 21:43

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 23:15

Lab File ID: SIG1050737.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	4.17	4.15	4.19
PCB-1248 Peak 2	5.73	5.71	5.75
PCB-1248 Peak 3	6.34	6.32	6.36
PCB-1248 Peak 4	6.61	6.60	6.64
PCB-1248 Peak 5	7.07	7.06	7.10

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/37 Calibration Date: 05/08/2017 04:08

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 21:43

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 23:15

Lab File ID: SIG1050737.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0147		0.901	1.00	-9.9	20.0
PCB-1248 Peak 2	Lin1		0.0215		0.923	1.00	-7.7	20.0
PCB-1248 Peak 3	Lin1		0.0294		0.942	1.00	-5.8	20.0
PCB-1248 Peak 4	Lin1		0.0410		1.03	1.00	3.4	20.0
PCB-1248 Peak 5	Lin1		0.0196		0.914	1.00	-8.6	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/37 Calibration Date: 05/08/2017 04:08

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 21:43

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 23:15

Lab File ID: SIG1050737.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	5.46	5.44	5.48
PCB-1248 Peak 2	6.65	6.63	6.67
PCB-1248 Peak 3	6.97	6.96	6.99
PCB-1248 Peak 4	7.46	7.44	7.48
PCB-1248 Peak 5	8.11	8.09	8.13

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/38 Calibration Date: 05/08/2017 04:27

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 23:33

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 01:05

Lab File ID: SIG1050738.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Lin1		0.0454		1.10	1.00	10.1	20.0
PCB-1254 Peak 2	Lin1		0.0606		1.09	1.00	9.0	20.0
PCB-1254 Peak 3	Lin1		0.0469		1.12	1.00	12.0	20.0
PCB-1254 Peak 4	Lin1		0.0448		1.15	1.00	15.1	20.0
PCB-1254 Peak 5	Lin1		0.0662		1.18	1.00	17.8	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/38 Calibration Date: 05/08/2017 04:27

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 23:33

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 01:05

Lab File ID: SIG1050738.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1254 Peak 1	6.62	6.60	6.64
PCB-1254 Peak 2	7.07	7.06	7.09
PCB-1254 Peak 3	7.37	7.36	7.40
PCB-1254 Peak 4	7.57	7.55	7.59
PCB-1254 Peak 5	7.84	7.82	7.86

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/38 Calibration Date: 05/08/2017 04:27

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 23:33

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 01:05

Lab File ID: SIG1050738.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Lin1		0.0367		1.07	1.00	6.7	20.0
PCB-1254 Peak 2	Lin1		0.0425		1.10	1.00	10.3	20.0
PCB-1254 Peak 3	Lin1		0.0605		1.09	1.00	8.6	20.0
PCB-1254 Peak 4	Lin1		0.0475		1.11	1.00	11.1	20.0
PCB-1254 Peak 5	Lin1		0.0680		1.18	1.00	17.9	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/38 Calibration Date: 05/08/2017 04:27

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 23:33

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 01:05

Lab File ID: SIG1050738.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1254 Peak 1	7.45	7.43	7.47
PCB-1254 Peak 2	7.66	7.64	7.68
PCB-1254 Peak 3	8.11	8.09	8.13
PCB-1254 Peak 4	8.33	8.31	8.35
PCB-1254 Peak 5	8.81	8.79	8.83

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/39 Calibration Date: 05/08/2017 04:45

Instrument ID: A2HP13 Calib Start Date: 05/08/2017 01:23

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 02:55

Lab File ID: SIG1050739.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0190		0.912	1.00	-8.8	20.0
PCB-1016 Peak 2	Lin1		0.0372		0.958	1.00	-4.2	20.0
PCB-1016 Peak 3	Lin1		0.0818		0.956	1.00	-4.4	20.0
PCB-1016 Peak 4	Lin1		0.0349		0.950	1.00	-5.0	20.0
PCB-1016 Peak 5	Lin1		0.0146		0.961	1.00	-3.9	20.0
PCB-1260 Peak 1	Lin1		0.0450		0.881	1.00	-11.9	20.0
PCB-1260 Peak 2	Lin1		0.0674		0.867	1.00	-13.3	20.0
PCB-1260 Peak 3	Lin1		0.0405		0.914	1.00	-8.6	20.0
PCB-1260 Peak 4	Lin1		0.0972		0.946	1.00	-5.4	20.0
PCB-1260 Peak 5	Lin1		0.0501		0.928	1.00	-7.2	20.0
Tetrachloro-m-xylene	Ave	1.056	0.999		0.0473	0.0500	-5.4	20.0
DCB Decachlorobiphenyl	Ave	0.9089	0.8350		0.0459	0.0500	-8.1	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/39 Calibration Date: 05/08/2017 04:45

Instrument ID: A2HP13 Calib Start Date: 05/08/2017 01:23

GC Column: CLP-1 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 02:55

Lab File ID: SIG1050739.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	3.57	3.55	3.59
PCB-1016 Peak 2	4.17	4.16	4.19
PCB-1016 Peak 3	4.92	4.90	4.93
PCB-1016 Peak 4	5.12	5.10	5.14
PCB-1016 Peak 5	5.49	5.47	5.51
PCB-1260 Peak 1	7.28	7.26	7.30
PCB-1260 Peak 2	7.57	7.55	7.59
PCB-1260 Peak 3	7.95	7.93	7.97
PCB-1260 Peak 4	8.46	8.44	8.48
PCB-1260 Peak 5	8.70	8.69	8.72
Tetrachloro-m-xylene	2.91	2.89	2.93
DCB Decachlorobiphenyl	9.61	9.59	9.63

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/39 Calibration Date: 05/08/2017 04:45

Instrument ID: A2HP13 Calib Start Date: 05/08/2017 01:23

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 02:55

Lab File ID: SIG1050739.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0188		0.900	1.00	-10.0	20.0
PCB-1016 Peak 2	Lin1		0.0379		0.947	1.00	-5.3	20.0
PCB-1016 Peak 3	Lin1		0.0825		0.946	1.00	-5.4	20.0
PCB-1016 Peak 4	Lin1		0.0332		0.944	1.00	-5.6	20.0
PCB-1016 Peak 5	Lin1		0.0252		0.919	1.00	-8.1	20.0
PCB-1260 Peak 1	Lin1		0.0465		0.849	1.00	-15.1	20.0
PCB-1260 Peak 2	Lin1		0.0582		0.874	1.00	-12.6	20.0
PCB-1260 Peak 3	Lin1		0.0747		0.829	1.00	-17.1	20.0
PCB-1260 Peak 4	Lin1		0.1173		0.937	1.00	-6.3	20.0
PCB-1260 Peak 5	Lin1		0.0762		0.918	1.00	-8.2	20.0
Tetrachloro-m-xylene	Ave	1.083	1.015		0.0469	0.0500	-6.2	20.0
DCB Decachlorobiphenyl	Ave	0.9086	0.8775		0.0483	0.0500	-3.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICV 240-277809/39 Calibration Date: 05/08/2017 04:45

Instrument ID: A2HP13 Calib Start Date: 05/08/2017 01:23

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 02:55

Lab File ID: SIG1050739.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.78	4.77	4.80
PCB-1016 Peak 2	5.46	5.45	5.48
PCB-1016 Peak 3	6.18	6.16	6.19
PCB-1016 Peak 4	6.37	6.35	6.39
PCB-1016 Peak 5	6.97	6.96	6.99
PCB-1260 Peak 1	8.30	8.28	8.31
PCB-1260 Peak 2	8.49	8.47	8.51
PCB-1260 Peak 3	8.81	8.79	8.82
PCB-1260 Peak 4	9.35	9.33	9.37
PCB-1260 Peak 5	9.65	9.63	9.67
Tetrachloro-m-xylene	3.86	3.84	3.87
DCB Decachlorobiphenyl	10.59	10.57	10.61

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278618/3 Calibration Date: 05/12/2017 06:27

Instrument ID: A2HP13 Calib Start Date: 05/08/2017 01:23

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 02:55

Lab File ID: SIG1051203.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Lin1		0.0220		0.513	0.500	2.6	20.0
PCB-1016 Peak 2	Lin1		0.0430		0.524	0.500	4.9	20.0
PCB-1016 Peak 3	Lin1		0.0916		0.517	0.500	3.4	20.0
PCB-1016 Peak 4	Lin1		0.0370		0.518	0.500	3.6	20.0
PCB-1016 Peak 5	Lin1		0.0292		0.516	0.500	3.1	20.0
PCB-1260 Peak 1	Lin1		0.0568		0.511	0.500	2.3	20.0
PCB-1260 Peak 2	Lin1		0.0689		0.510	0.500	2.0	20.0
PCB-1260 Peak 3	Lin1		0.0949		0.520	0.500	4.1	20.0
PCB-1260 Peak 4	Lin1		0.1332		0.528	0.500	5.6	20.0
PCB-1260 Peak 5	Lin1		0.0900		0.536	0.500	7.2	20.0
Tetrachloro-m-xylene	Ave	1.083	1.024		0.0236	0.0250	-5.5	20.0
DCB Decachlorobiphenyl	Ave	0.9086	0.9023		0.0248	0.0250	-0.7	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278618/3 Calibration Date: 05/12/2017 06:27

Instrument ID: A2HP13 Calib Start Date: 05/08/2017 01:23

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 02:55

Lab File ID: SIG1051203.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1016 Peak 1	4.78	4.76	4.80
PCB-1016 Peak 2	5.46	5.44	5.48
PCB-1016 Peak 3	6.17	6.15	6.19
PCB-1016 Peak 4	6.36	6.34	6.38
PCB-1016 Peak 5	6.97	6.95	6.99
PCB-1260 Peak 1	8.29	8.27	8.31
PCB-1260 Peak 2	8.49	8.47	8.50
PCB-1260 Peak 3	8.80	8.78	8.82
PCB-1260 Peak 4	9.34	9.32	9.36
PCB-1260 Peak 5	9.64	9.62	9.66
Tetrachloro-m-xylene	3.86	3.84	3.87
DCB Decachlorobiphenyl	10.58	10.56	10.60

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278618/4 Calibration Date: 05/12/2017 06:45

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 18:02

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 19:34

Lab File ID: SIG1051204.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Lin1		0.0211		0.498	0.500	-0.4	20.0
PCB-1232 Peak 2	Lin1		0.0180		0.499	0.500	-0.2	20.0
PCB-1232 Peak 3	Lin1		0.0342		0.488	0.500	-2.4	20.0
PCB-1232 Peak 4	Lin1		0.0136		0.473	0.500	-5.4	20.0
PCB-1232 Peak 5	Lin1		0.0110		0.507	0.500	1.4	20.0
PCB-1262 Peak 1	Lin1		0.0422		0.498	0.500	-0.4	20.0
PCB-1262 Peak 2	Lin1		0.0633		0.501	0.500	0.1	20.0
PCB-1262 Peak 3	Lin1		0.0545		0.501	0.500	0.2	20.0
PCB-1262 Peak 4	Lin1		0.1218		0.508	0.500	1.6	20.0
PCB-1262 Peak 5	Lin1		0.0853		0.517	0.500	3.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278618/4 Calibration Date: 05/12/2017 06:45

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 18:02

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 19:34

Lab File ID: SIG1051204.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1232 Peak 1	4.78	4.76	4.80
PCB-1232 Peak 2	5.46	5.44	5.48
PCB-1232 Peak 3	6.17	6.15	6.19
PCB-1232 Peak 4	6.36	6.34	6.38
PCB-1232 Peak 5	6.97	6.95	6.99
PCB-1262 Peak 1	8.49	8.47	8.50
PCB-1262 Peak 2	8.88	8.86	8.90
PCB-1262 Peak 3	9.13	9.11	9.15
PCB-1262 Peak 4	9.34	9.32	9.36
PCB-1262 Peak 5	9.64	9.62	9.66

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278618/5 Calibration Date: 05/12/2017 07:04

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 19:53

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 21:24

Lab File ID: SIG1051205.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Lin1		0.0193		0.499	0.500	-0.3	20.0
PCB-1242 Peak 2	Lin1		0.0373		0.513	0.500	2.5	20.0
PCB-1242 Peak 3	Lin1		0.0785		0.503	0.500	0.6	20.0
PCB-1242 Peak 4	Lin1		0.0321		0.509	0.500	1.8	20.0
PCB-1242 Peak 5	Lin1		0.0260		0.524	0.500	4.8	20.0
PCB-1268 Peak 1	Lin1		0.1922		0.525	0.500	4.9	20.0
PCB-1268 Peak 2	Lin1		0.1827		0.501	0.500	0.1	20.0
PCB-1268 Peak 3	Lin1		0.1558		0.507	0.500	1.4	20.0
PCB-1268 Peak 4	Lin1		0.0649		0.521	0.500	4.3	20.0
PCB-1268 Peak 5	Lin1		0.4726		0.516	0.500	3.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278618/5 Calibration Date: 05/12/2017 07:04

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 19:53

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 21:24

Lab File ID: SIG1051205.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1242 Peak 1	4.78	4.76	4.80
PCB-1242 Peak 2	5.46	5.44	5.48
PCB-1242 Peak 3	6.17	6.15	6.19
PCB-1242 Peak 4	6.36	6.34	6.38
PCB-1242 Peak 5	6.97	6.95	6.99
PCB-1268 Peak 1	9.64	9.62	9.66
PCB-1268 Peak 2	9.67	9.66	9.69
PCB-1268 Peak 3	9.88	9.86	9.90
PCB-1268 Peak 4	10.11	10.09	10.13
PCB-1268 Peak 5	10.37	10.35	10.39

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278618/6 Calibration Date: 05/12/2017 07:22

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 21:43

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 23:15

Lab File ID: SIG1051206.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Lin1		0.0176		0.526	0.500	5.1	20.0
PCB-1248 Peak 2	Lin1		0.0245		0.514	0.500	2.8	20.0
PCB-1248 Peak 3	Lin1		0.0332		0.516	0.500	3.3	20.0
PCB-1248 Peak 4	Lin1		0.0413		0.510	0.500	1.9	20.0
PCB-1248 Peak 5	Lin1		0.0226		0.520	0.500	4.0	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278618/6 Calibration Date: 05/12/2017 07:22

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 21:43

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/07/2017 23:15

Lab File ID: SIG1051206.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1248 Peak 1	5.46	5.44	5.48
PCB-1248 Peak 2	6.65	6.63	6.67
PCB-1248 Peak 3	6.97	6.95	6.99
PCB-1248 Peak 4	7.45	7.43	7.47
PCB-1248 Peak 5	8.11	8.09	8.13

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278618/7 Calibration Date: 05/12/2017 07:41

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 23:33

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 01:05

Lab File ID: SIG1051207.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Lin1		0.0111		0.522	0.500	4.4	20.0
PCB-1221 Peak 2	Lin1		0.0073		0.517	0.500	3.4	20.0
PCB-1221 Peak 3	Lin1		0.0257		0.520	0.500	4.1	20.0
PCB-1254 Peak 1	Lin1		0.0366		0.519	0.500	3.9	20.0
PCB-1254 Peak 2	Lin1		0.0411		0.520	0.500	4.1	20.0
PCB-1254 Peak 3	Lin1		0.0597		0.522	0.500	4.4	20.0
PCB-1254 Peak 4	Lin1		0.0463		0.532	0.500	6.4	20.0
PCB-1254 Peak 5	Lin1		0.0620		0.526	0.500	5.2	20.0

FORM VII
PCBS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: CCV 240-278618/7 Calibration Date: 05/12/2017 07:41

Instrument ID: A2HP13 Calib Start Date: 05/07/2017 23:33

GC Column: CLP-2 (0.53mm) ID: 0.53(mm) Calib End Date: 05/08/2017 01:05

Lab File ID: SIG1051207.D

Analyte	RT	RT WINDOW	
		FROM	TO
PCB-1221 Peak 1	4.43	4.41	4.45
PCB-1221 Peak 2	4.68	4.66	4.70
PCB-1221 Peak 3	4.78	4.76	4.80
PCB-1254 Peak 1	7.45	7.43	7.47
PCB-1254 Peak 2	7.65	7.64	7.67
PCB-1254 Peak 3	8.11	8.09	8.13
PCB-1254 Peak 4	8.32	8.30	8.34
PCB-1254 Peak 5	8.80	8.78	8.82

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-278366/21-A

Matrix: Water | Lab File ID: SIG1051209.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3520C | Date Extracted: 05/10/2017 12:10

Sample wt/vol: 1000(mL) | Date Analyzed: 05/12/2017 08:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 (0.53mm) ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 278618 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	0.050	U	0.10	0.050
11104-28-2	Aroclor-1221	0.090	U	0.10	0.090
11141-16-5	Aroclor-1232	0.070	U	0.10	0.070
53469-21-9	Aroclor-1242	0.060	U	0.10	0.060
12672-29-6	Aroclor-1248	0.050	U	0.10	0.050
11097-69-1	Aroclor-1254	0.030	U	0.10	0.030
11096-82-5	Aroclor-1260	0.040	U	0.10	0.040

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	62		21-120
2051-24-3	DCB Decachlorobiphenyl	79		10-120

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-278366/22-A

Matrix: Water | Lab File ID: SIG1051210.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3520C | Date Extracted: 05/10/2017 12:10

Sample wt/vol: 1000(mL) | Date Analyzed: 05/12/2017 08:36

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 (0.53mm) ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 278618 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	1.37		0.10	0.050
11096-82-5	Aroclor-1260	1.55		0.10	0.040

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	57		21-120
2051-24-3	DCB Decachlorobiphenyl	73		10-120

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-79239-X-1-A MS

Matrix: Water | Lab File ID: SIG1051215.D

Analysis Method: 8082A | Date Collected: 05/05/2017 13:00

Extraction Method: 3520C | Date Extracted: 05/10/2017 12:10

Sample wt/vol: 1040(mL) | Date Analyzed: 05/12/2017 10:08

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 (0.53mm) ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 278618 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	1.33		0.096	0.048
11104-28-2	Aroclor-1221	0.087	U	0.096	0.087
11141-16-5	Aroclor-1232	0.067	U	0.096	0.067
53469-21-9	Aroclor-1242	0.058	U	0.096	0.058
12672-29-6	Aroclor-1248	0.048	U	0.096	0.048
11097-69-1	Aroclor-1254	0.029	U	0.096	0.029
11096-82-5	Aroclor-1260	1.51		0.096	0.038

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	53		21-120
2051-24-3	DCB Decachlorobiphenyl	26		10-120

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-79233-1

SDG No.:

Client Sample ID: | Lab Sample ID: 240-79239-V-1-A MSD

Matrix: Water | Lab File ID: SIG1051216.D

Analysis Method: 8082A | Date Collected: 05/05/2017 13:00

Extraction Method: 3520C | Date Extracted: 05/10/2017 12:10

Sample wt/vol: 1040(mL) | Date Analyzed: 05/12/2017 10:26

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 (0.53mm) ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 278618 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	1.31		0.096	0.048
11104-28-2	Aroclor-1221	0.087	U	0.096	0.087
11141-16-5	Aroclor-1232	0.067	U	0.096	0.067
53469-21-9	Aroclor-1242	0.058	U	0.096	0.058
12672-29-6	Aroclor-1248	0.048	U	0.096	0.048
11097-69-1	Aroclor-1254	0.029	U	0.096	0.029
11096-82-5	Aroclor-1260	1.31		0.096	0.038

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	59		21-120
2051-24-3	DCB Decachlorobiphenyl	23		10-120

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A2HP13 Start Date: 05/07/2017 18:02

Analysis Batch Number: 277809 End Date: 05/08/2017 05:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD005 240-277809/4 IC		05/07/2017 18:02	1	SIG1050704.D	CLP-1 (0.53mm) 0.53(mm)
STD005 240-277809/4 IC		05/07/2017 18:02	1	SIG1050704.D	CLP-2 (0.53mm) 0.53(mm)
STD01 240-277809/5 IC		05/07/2017 18:21	1	SIG1050705.D	CLP-1 (0.53mm) 0.53(mm)
STD01 240-277809/5 IC		05/07/2017 18:21	1	SIG1050705.D	CLP-2 (0.53mm) 0.53(mm)
STD02 240-277809/6 IC		05/07/2017 18:39	1	SIG1050706.D	CLP-1 (0.53mm) 0.53(mm)
STD02 240-277809/6 IC		05/07/2017 18:39	1	SIG1050706.D	CLP-2 (0.53mm) 0.53(mm)
STD05 240-277809/7 IC		05/07/2017 18:58	1	SIG1050707.D	CLP-1 (0.53mm) 0.53(mm)
STD05 240-277809/7 IC		05/07/2017 18:58	1	SIG1050707.D	CLP-2 (0.53mm) 0.53(mm)
STD1 240-277809/8 IC		05/07/2017 19:16	1	SIG1050708.D	CLP-1 (0.53mm) 0.53(mm)
STD1 240-277809/8 IC		05/07/2017 19:16	1	SIG1050708.D	CLP-2 (0.53mm) 0.53(mm)
std1.5 1232 1262 IC		05/07/2017 19:34	1	SIG1050709.D	CLP-1 (0.53mm) 0.53(mm)
std1.5 1232 1262 IC		05/07/2017 19:34	1	SIG1050709.D	CLP-2 (0.53mm) 0.53(mm)
STD005 240-277809/10 IC		05/07/2017 19:53	1	SIG1050710.D	CLP-1 (0.53mm) 0.53(mm)
STD005 240-277809/10 IC		05/07/2017 19:53	1	SIG1050710.D	CLP-2 (0.53mm) 0.53(mm)
STD01 240-277809/11 IC		05/07/2017 20:11	1	SIG1050711.D	CLP-1 (0.53mm) 0.53(mm)
STD01 240-277809/11 IC		05/07/2017 20:11	1	SIG1050711.D	CLP-2 (0.53mm) 0.53(mm)
STD02 240-277809/12 IC		05/07/2017 20:29	1	SIG1050712.D	CLP-1 (0.53mm) 0.53(mm)
STD02 240-277809/12 IC		05/07/2017 20:29	1	SIG1050712.D	CLP-2 (0.53mm) 0.53(mm)
STD05 240-277809/13 IC		05/07/2017 20:48	1	SIG1050713.D	CLP-1 (0.53mm) 0.53(mm)
STD05 240-277809/13 IC		05/07/2017 20:48	1	SIG1050713.D	CLP-2 (0.53mm) 0.53(mm)
STD1 240-277809/14 IC		05/07/2017 21:06	1	SIG1050714.D	CLP-1 (0.53mm) 0.53(mm)
STD1 240-277809/14 IC		05/07/2017 21:06	1	SIG1050714.D	CLP-2 (0.53mm) 0.53(mm)
std1.5 1242 1268 IC		05/07/2017 21:24	1	SIG1050715.D	CLP-1 (0.53mm) 0.53(mm)
std1.5 1242 1268 IC		05/07/2017 21:24	1	SIG1050715.D	CLP-2 (0.53mm) 0.53(mm)
STD005 240-277809/16 IC		05/07/2017 21:43	1	SIG1050716.D	CLP-1 (0.53mm) 0.53(mm)
STD005 240-277809/16 IC		05/07/2017 21:43	1	SIG1050716.D	CLP-2 (0.53mm) 0.53(mm)
STD01 240-277809/17 IC		05/07/2017 22:01	1	SIG1050717.D	CLP-1 (0.53mm) 0.53(mm)
STD01 240-277809/17 IC		05/07/2017 22:01	1	SIG1050717.D	CLP-2 (0.53mm) 0.53(mm)
STD02 240-277809/18 IC		05/07/2017 22:20	1	SIG1050718.D	CLP-1 (0.53mm) 0.53(mm)
STD02 240-277809/18 IC		05/07/2017 22:20	1	SIG1050718.D	CLP-2 (0.53mm) 0.53(mm)
STD05 240-277809/19 IC		05/07/2017 22:38	1	SIG1050719.D	CLP-1 (0.53mm) 0.53(mm)
STD05 240-277809/19 IC		05/07/2017 22:38	1	SIG1050719.D	CLP-2 (0.53mm) 0.53(mm)
STD1 240-277809/20 IC		05/07/2017 22:56	1	SIG1050720.D	CLP-1 (0.53mm) 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A2HP13 Start Date: 05/07/2017 18:02

Analysis Batch Number: 277809 End Date: 05/08/2017 05:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-277809/20 IC		05/07/2017 22:56	1	SIG1050720.D	CLP-2 (0.53mm) 0.53(mm)
std1.5 1248 IC		05/07/2017 23:15	1	SIG1050721.D	CLP-1 (0.53mm) 0.53(mm)
std1.5 1248 IC		05/07/2017 23:15	1	SIG1050721.D	CLP-2 (0.53mm) 0.53(mm)
STD005 240-277809/22 IC		05/07/2017 23:33	1	SIG1050722.D	CLP-1 (0.53mm) 0.53(mm)
STD005 240-277809/22 IC		05/07/2017 23:33	1	SIG1050722.D	CLP-2 (0.53mm) 0.53(mm)
STD01 240-277809/23 IC		05/07/2017 23:51	1	SIG1050723.D	CLP-1 (0.53mm) 0.53(mm)
STD01 240-277809/23 IC		05/07/2017 23:51	1	SIG1050723.D	CLP-2 (0.53mm) 0.53(mm)
STD02 240-277809/24 IC		05/08/2017 00:10	1	SIG1050724.D	CLP-1 (0.53mm) 0.53(mm)
STD02 240-277809/24 IC		05/08/2017 00:10	1	SIG1050724.D	CLP-2 (0.53mm) 0.53(mm)
STD05 240-277809/25 IC		05/08/2017 00:28	1	SIG1050725.D	CLP-1 (0.53mm) 0.53(mm)
STD05 240-277809/25 IC		05/08/2017 00:28	1	SIG1050725.D	CLP-2 (0.53mm) 0.53(mm)
STD1 240-277809/26 IC		05/08/2017 00:46	1	SIG1050726.D	CLP-1 (0.53mm) 0.53(mm)
STD1 240-277809/26 IC		05/08/2017 00:46	1	SIG1050726.D	CLP-2 (0.53mm) 0.53(mm)
std1.5 ar2154 IC		05/08/2017 01:05	1	SIG1050727.D	CLP-1 (0.53mm) 0.53(mm)
std1.5 ar2154 IC		05/08/2017 01:05	1	SIG1050727.D	CLP-2 (0.53mm) 0.53(mm)
STD005 240-277809/28 IC		05/08/2017 01:23	1	SIG1050728.D	CLP-1 (0.53mm) 0.53(mm)
STD005 240-277809/28 IC		05/08/2017 01:23	1	SIG1050728.D	CLP-2 (0.53mm) 0.53(mm)
STD01 240-277809/29 IC		05/08/2017 01:41	1	SIG1050729.D	CLP-1 (0.53mm) 0.53(mm)
STD01 240-277809/29 IC		05/08/2017 01:41	1	SIG1050729.D	CLP-2 (0.53mm) 0.53(mm)
STD02 240-277809/30 IC		05/08/2017 02:00	1	SIG1050730.D	CLP-1 (0.53mm) 0.53(mm)
STD02 240-277809/30 IC		05/08/2017 02:00	1	SIG1050730.D	CLP-2 (0.53mm) 0.53(mm)
STD05 240-277809/31 ICIS		05/08/2017 02:18	1	SIG1050731.D	CLP-1 (0.53mm) 0.53(mm)
STD05 240-277809/31 ICIS		05/08/2017 02:18	1	SIG1050731.D	CLP-2 (0.53mm) 0.53(mm)
STD1 240-277809/32 IC		05/08/2017 02:36	1	SIG1050732.D	CLP-1 (0.53mm) 0.53(mm)
STD1 240-277809/32 IC		05/08/2017 02:36	1	SIG1050732.D	CLP-2 (0.53mm) 0.53(mm)
std1.5 1660 IC		05/08/2017 02:55	1	SIG1050733.D	CLP-1 (0.53mm) 0.53(mm)
std1.5 1660 IC		05/08/2017 02:55	1	SIG1050733.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-277809/34		05/08/2017 03:13	1	SIG1050734.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-277809/34		05/08/2017 03:13	1	SIG1050734.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-277809/35		05/08/2017 03:31	1	SIG1050735.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-277809/35		05/08/2017 03:31	1	SIG1050735.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-277809/36		05/08/2017 03:50	1	SIG1050736.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-277809/36		05/08/2017 03:50	1	SIG1050736.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-277809/37		05/08/2017 04:08	1	SIG1050737.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-277809/37		05/08/2017 04:08	1	SIG1050737.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-277809/38		05/08/2017 04:27	1	SIG1050738.D	CLP-1 (0.53mm) 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A2HP13 Start Date: 05/07/2017 18:02

Analysis Batch Number: 277809 End Date: 05/08/2017 05:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 240-277809/38		05/08/2017 04:27	1	SIG1050738.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-277809/39		05/08/2017 04:45	1	SIG1050739.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-277809/39		05/08/2017 04:45	1	SIG1050739.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-277809/40		05/08/2017 05:03	1	SIG1050740.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-277809/40		05/08/2017 05:03	1	SIG1050740.D	CLP-2 (0.53mm) 0.53(mm)
ICV 240-277809/41		05/08/2017 05:22	1	SIG1050741.D	CLP-1 (0.53mm) 0.53(mm)
ICV 240-277809/41		05/08/2017 05:22	1	SIG1050741.D	CLP-2 (0.53mm) 0.53(mm)

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A2HP13 Start Date: 05/12/2017 06:27

Analysis Batch Number: 278618 End Date: 05/12/2017 15:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-278618/3 CCVIS		05/12/2017 06:27	1		CLP-1 (0.53mm) 0.53(mm)
CCV 240-278618/3 CCVIS		05/12/2017 06:27	1	SIG1051203.D	CLP-2 (0.53mm) 0.53(mm)
CCV 240-278618/4		05/12/2017 06:45	1		CLP-1 (0.53mm) 0.53(mm)
CCV 240-278618/4		05/12/2017 06:45	1	SIG1051204.D	CLP-2 (0.53mm) 0.53(mm)
CCV 240-278618/5		05/12/2017 07:04	1		CLP-1 (0.53mm) 0.53(mm)
CCV 240-278618/5		05/12/2017 07:04	1	SIG1051205.D	CLP-2 (0.53mm) 0.53(mm)
CCV 240-278618/6		05/12/2017 07:22	1		CLP-1 (0.53mm) 0.53(mm)
CCV 240-278618/6		05/12/2017 07:22	1	SIG1051206.D	CLP-2 (0.53mm) 0.53(mm)
CCV 240-278618/7		05/12/2017 07:41	1		CLP-1 (0.53mm) 0.53(mm)
CCV 240-278618/7		05/12/2017 07:41	1	SIG1051207.D	CLP-2 (0.53mm) 0.53(mm)
MB 240-278366/21-A		05/12/2017 08:17	1	SIG1051209.D	CLP-1 (0.53mm) 0.53(mm)
MB 240-278366/21-A		05/12/2017 08:17	1	SIG1051209.D	CLP-2 (0.53mm) 0.53(mm)
LCS 240-278366/22-A		05/12/2017 08:36	1	SIG1051210.D	CLP-1 (0.53mm) 0.53(mm)
LCS 240-278366/22-A		05/12/2017 08:36	1	SIG1051210.D	CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 08:54	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 08:54	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 09:12	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 09:12	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 09:31	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 09:31	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 09:49	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 09:49	1		CLP-2 (0.53mm) 0.53(mm)
240-79239-X-1-A MS		05/12/2017 10:08	1	SIG1051215.D	CLP-1 (0.53mm) 0.53(mm)
240-79239-X-1-A MS		05/12/2017 10:08	1	SIG1051215.D	CLP-2 (0.53mm) 0.53(mm)
240-79239-V-1-A MSD		05/12/2017 10:26	1	SIG1051216.D	CLP-1 (0.53mm) 0.53(mm)
240-79239-V-1-A MSD		05/12/2017 10:26	1	SIG1051216.D	CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 10:44	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 10:44	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 11:03	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 11:03	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 11:21	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 11:21	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 11:39	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 11:39	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 11:58	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 11:58	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 12:16	10		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 12:16	10		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 12:35	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 12:35	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 12:53	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 12:53	1		CLP-2 (0.53mm) 0.53(mm)
240-79233-3		05/12/2017 13:11	1	SIG1051225.D	CLP-1 (0.53mm) 0.53(mm)
240-79233-3		05/12/2017 13:11	1	SIG1051225.D	CLP-2 (0.53mm) 0.53(mm)

8082A

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: A2HP13 Start Date: 05/12/2017 06:27

Analysis Batch Number: 278618 End Date: 05/12/2017 15:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/12/2017 13:30	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 13:30	1		CLP-2 (0.53mm) 0.53(mm)
CCVIS 240-278618/29		05/12/2017 14:25	1		CLP-1 (0.53mm) 0.53(mm)
CCVIS 240-278618/29		05/12/2017 14:25	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 14:43	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 14:43	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 15:02	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 15:02	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 15:20	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 15:20	1		CLP-2 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 15:38	1		CLP-1 (0.53mm) 0.53(mm)
ZZZZZ		05/12/2017 15:38	1		CLP-2 (0.53mm) 0.53(mm)

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Batch Number: 278366 Batch Start Date: 05/10/17 14:20 Batch Analyst: Scott, Caitlin

Batch Method: 3520C Batch End Date: 05/11/17 08:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	ex10PPMSPK 00026	ex2/.2SURRW 00084	
240-79233-G-3	WC-MRCGW-050417	3520C, 8082A	T	1030 mL	2 mL	7		1 mL	
240-79239-X-1 MS		3520C, 8082A	T	1040 mL	2 mL	7	0.25 mL	1 mL	
240-79239-V-1 MSD		3520C, 8082A	T	1040 mL	2 mL	7	0.25 mL	1 mL	
MB 240-278366/21		3520C, 8082A		1000 mL	2 mL	7		1 mL	
LCS 240-278366/22		3520C, 8082A		1000 mL	2 mL	7	0.25 mL	1 mL	

Batch Notes	
Acid used for Clean Up ID	2902650
Exchange Solvent ID	2959695
pH Paper ID	2644945
Prep Solvent ID	3036374
TCLP Fluid 1 ID	2308568

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-79233-1

SDG No.:

Project: LM MRC Waste Characterization

Client Sample ID	Lab Sample ID
WC-MRCGW-050417	240-79233-3

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: WC-MRCGW-050417 Lab Sample ID: 240-79233-3

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG ID.:

Matrix: Water Date Sampled: 05/04/2017 11:00

Reporting Basis: WET Date Received: 05/06/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.0033	0.050	0.0033	mg/L	U		1	6010B
7440-39-3	Barium	0.053	0.50	0.0024	mg/L	J	B	1	6010B
7440-43-9	Cadmium	0.00029	0.050	0.00029	mg/L	U		1	6010B
7440-47-3	Chromium	0.00055	0.050	0.00055	mg/L	U		1	6010B
7439-92-1	Lead	0.0019	0.050	0.0019	mg/L	U		1	6010B
7782-49-2	Selenium	0.0051	0.050	0.0051	mg/L	U		1	6010B
7440-22-4	Silver	0.00092	0.050	0.00092	mg/L	U		1	6010B
7439-97-6	Mercury	0.00013	0.0020	0.00013	mg/L	U		1	7470A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

ICV Source: MT6500ICV_00037 Concentration Units: ug/L

CCV Source: MTICPCCV_00097

Analyte	ICV 240-278348/4 05/10/2017 07:52				CCV 240-278348/54 05/10/2017 13:04				CCV 240-278348/66 05/10/2017 13:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	381		375	102	512		500	102	511		500	102
Barium	1500		1500	100	2030		2000	101	2000		2000	100
Cadmium	373		375	100	508		500	102	496		500	99
Chromium	1510		1500	101	2010		2000	101	1980		2000	99
Lead	367		375	98	492		500	98	490		500	98
Selenium	379		375	101	520		500	104	525		500	105
Silver	758		750	101	1030		1000	103	1020		1000	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

ICV Source: MT6500ICV_00037 Concentration Units: ug/L

CCV Source: MTICPCCV_00097

Analyte	CCV 240-278348/78 05/10/2017 14:52				CCV 240-278348/234 05/11/2017 02:32				CCV 240-278348/246 05/11/2017 03:27			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	508		500	102	515		500	103	515		500	103
Barium	2020		2000	101	2100		2000	105	2080		2000	104
Cadmium	502		500	100	494		500	99	490		500	98
Chromium	2010		2000	101	2020		2000	101	2000		2000	100
Lead	492		500	98	496		500	99	493		500	99
Selenium	524		500	105	522		500	104	530		500	106
Silver	1020		1000	102	1030		1000	103	1030		1000	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

ICV Source: MTTRCRIC_00047 Concentration Units: ug/L

CCV Source: MTICPCCV_00097

Analyte	ICVL 240-278348/6 05/10/2017 08:01				CCV 240-278348/54 05/10/2017 13:04				CCV 240-278348/66 05/10/2017 13:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	15.4		15.0	103	512		500	102	511		500	102
Barium	196	J	200	98	2030		2000	101	2000		2000	100
Cadmium	5.03		5.00	101	508		500	102	496		500	99
Chromium	9.49		10.0	95	2010		2000	101	1980		2000	99
Lead	10.3		10.0	103	492		500	98	490		500	98
Selenium	19.9		20.0	100	520		500	104	525		500	105
Silver	10.4		10.0	104	1030		1000	103	1020		1000	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

ICV Source: MTTRCRIC_00047 Concentration Units: ug/L

CCV Source: MTICPCCV_00097

Analyte	CCV 240-278348/78 05/10/2017 14:52				CCV 240-278348/234 05/11/2017 02:32				CCV 240-278348/246 05/11/2017 03:27			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	508		500	102	515		500	103	515		500	103
Barium	2020		2000	101	2100		2000	105	2080		2000	104
Cadmium	502		500	100	494		500	99	490		500	98
Chromium	2010		2000	101	2020		2000	101	2000		2000	100
Lead	492		500	98	496		500	99	493		500	99
Selenium	524		500	105	522		500	104	530		500	106
Silver	1020		1000	102	1030		1000	103	1030		1000	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

ICV Source: MTHgICV_00001_00172 Concentration Units: ug/L

CCV Source: MTHGCALW_01500

Analyte	ICV 240-278323/7-A 05/10/2017 12:55				CCV 240-278323/10-A 05/10/2017 13:57				CCV 240-278323/10-A 05/10/2017 14:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.87		5.00	97	5.05		5.00	101	5.01		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

ICV Source: MTHgICV_00001_00172 Concentration Units: ug/L

CCV Source: MTHGCALW_01500

Analyte	CCV 240-278323/10-A 05/10/2017 14:46				CCV 240-278323/10-A 05/10/2017 15:11							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.09		5.00	102	5.04		5.00	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-278323/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01500

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.200	J	100	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-278348/5 05/10/2017 07:56		CCB 240-278348/55 05/10/2017 13:08		CCB 240-278348/67 05/10/2017 14:02		CCB 240-278348/79 05/10/2017 14:56	
		Found	C	Found	C	Found	C	Found	C
Arsenic	10	3.3	U	3.3	U	3.3	U	3.3	U
Barium	200	2.4	U	2.4	U	2.4	U	2.4	U
Cadmium	2.0	0.29	U	0.29	U	0.29	U	0.29	U
Chromium	5.0	0.55	U	0.55	U	0.55	U	0.55	U
Lead	5.0	1.9	U	1.9	U	1.9	U	1.9	U
Selenium	15	5.1	U	5.1	U	5.1	U	5.48	J
Silver	5.0	0.92	U	0.92	U	0.92	U	0.92	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-278348/235 05/11/2017 02:36		CCB 240-278348/247 05/11/2017 03:31					
		Found	C	Found	C	Found	C	Found	C
Arsenic	10	3.3	U	3.3	U				
Barium	200	2.4	U	2.4	U				
Cadmium	2.0	0.29	U	0.29	U				
Chromium	5.0	0.55	U	0.55	U				
Lead	5.0	1.9	U	1.9	U				
Selenium	15	5.1	U	5.1	U				
Silver	5.0	0.92	U	0.92	U				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-278323/8-A 05/10/2017 12:57		CCB 240-278323/11-A 05/10/2017 13:59		CCB 240-278323/11-A 05/10/2017 14:24		CCB 240-278323/11-A 05/10/2017 14:48	
		Found	C	Found	C	Found	C	Found	C
Mercury	2.0	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-278323/11-A 05/10/2017 15:13							
		Found	C	Found	C	Found	C	Found	C
Mercury	2.0	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-278141/2-A

Instrument Code: I12 Batch No.: 278348

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.0033	U		6010B
7440-39-3	Barium	0.0024	U		6010B
7440-43-9	Cadmium	0.00029	U		6010B
7440-47-3	Chromium	0.00055	U		6010B
7439-92-1	Lead	0.0019	U		6010B
7782-49-2	Selenium	0.0051	U		6010B
7440-22-4	Silver	0.00092	U		6010B

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-278088/1-B

Instrument Code: I12 Batch No.: 278348

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.00577	J		6010B
7440-39-3	Barium	0.00313	J		6010B
7440-43-9	Cadmium	0.00029	U		6010B
7440-47-3	Chromium	0.00115	J		6010B
7439-92-1	Lead	0.0019	U		6010B
7782-49-2	Selenium	0.00679	J		6010B
7440-22-4	Silver	0.00092	U		6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 240-278142/2-A

Instrument Code: H3 Batch No.: 278381

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.00013	U		7470A

FORM III-IN

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 240-278088/1-C

Instrument Code: H3 Batch No.: 278381

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.00013	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICSA 240-278348/8 Instrument ID: I12

Lab File ID: I12051017A.asc ICS Source: MTTRICSAW_00034

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**-2.57**	
Barium		**0.165**	
Cadmium		**1.14**	
Chromium		**1.92**	
Lead		**-1.19**	
Selenium		**-0.843**	
Silver		**-2.92**	
Aluminum	*500000*	*504880*	*101*
Antimony		*3.94*	
Beryllium		*0.192*	
Boron		*3.93*	
Calcium	*500000*	*468470*	*94*
Cobalt		*-4.75*	
Copper		*-4.28*	
Iron	*200000*	*186990*	*93*
Lithium		*13.0*	
Magnesium	*500000*	*501050*	*100*
Manganese		*2.12*	
Molybdenum		*-0.0555*	
Nickel		*-2.52*	
Potassium		*10.00*	
Silicon		*-11.4*	
Sodium		*27.1*	
Strontium		*8.58*	
Thallium		*6.13*	
Tin		*0.821*	
Titanium		*-1.60*	
Vanadium		*-3.23*	
Zinc		*0.616*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Lab Sample ID: ICSAB 240-278348/9 Instrument ID: I12

Lab File ID: I12051017A.asc ICS Source: MTICPICSABW_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**1000**	**1014**	**101**
Barium	**500**	**493**	**99**
Cadmium	**1000**	**1035**	**104**
Chromium	**500**	**484**	**97**
Lead	**1000**	**927**	**93**
Selenium	**1000**	**1016**	**102**
Silver	**1000**	**1059**	**106**
Aluminum	*500000*	*509280*	*102*
Antimony	*1000*	*1014*	*101*
Beryllium	*500*	*477*	*95*
Boron	*500*	*530*	*106*
Calcium	*500000*	*472710*	*95*
Cobalt	*500*	*483*	*97*
Copper	*500*	*527*	*105*
Iron	*200000*	*189570*	*95*
Lithium	*500*	*532*	*106*
Magnesium	*500000*	*510780*	*102*
Manganese	*500*	*487*	*97*
Molybdenum	*1000*	*941*	*94*
Nickel	*1000*	*962*	*96*
Potassium	*10000*	*10258*	*103*
Silicon	*10000*	*9912*	*99*
Sodium	*10000*	*10422*	*104*
Strontium	*1500*	*1407*	*94*
Thallium	*1000*	*986*	*99*
Tin	*500*	*497*	*99*
Titanium	*500*	*496*	*99*
Vanadium	*500*	*472*	*94*
Zinc	*1000*	*975*	*98*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TCLP

Client ID: _____ Lab ID: 240-79231-B-1-D MS ^5

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Arsenic	5.40		0.0070	J	5.00	108	75-125		6010B
Barium	51.7		0.17	J	50.0	103	75-125		6010B
Cadmium	1.06		0.023	J	1.00	103	75-125		6010B
Chromium	5.15		0.018	J	5.00	103	75-125		6010B
Lead	5.01		0.015	J	5.00	100	75-125		6010B
Selenium	1.13		0.011	J	1.00	112	75-125		6010B
Silver	1.05		0.00092	U	1.00	105	75-125		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TCLP

Client ID: Lab ID: 240-79231-B-1-G MS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water Concentration Units: mg/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.00478		0.00013	U	0.00500	96	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TCLP

Client ID: _____ Lab ID: 240-79231-B-1-E MSD ^5

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	5.38		5.00	107	75-125	0	20		6010B
Barium	50.8		50.0	101	75-125	2	20		6010B
Cadmium	1.05		1.00	103	75-125	0	20		6010B
Chromium	5.11		5.00	102	75-125	1	20		6010B
Lead	5.02		5.00	100	75-125	0	20		6010B
Selenium	1.08		1.00	107	75-125	4	20		6010B
Silver	1.05		1.00	105	75-125	1	20		6010B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TCLP

Client ID: _____ Lab ID: 240-79231-B-1-H MSD

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.00486		0.00500	97	80-120	2	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-278141/3-A

Lab Name: TestAmerica Canton Job No.: 240-79233-1

Sample Matrix: Water LCS Source: MTICP1_00063

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	2.00	2.21		111	50	150		6010B
Barium	2.00	2.02		101	50	150		6010B
Cadmium	0.0500	0.0533		107	50	150		6010B
Chromium	0.200	0.205		103	50	150		6010B
Lead	0.500	0.479		96	50	150		6010B
Selenium	2.00	2.23		112	50	150		6010B
Silver	0.0500	0.0555		111	50	150		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-278142/3-A

Lab Name: TestAmerica Canton Job No.: 240-79233-1

Sample Matrix: Water LCS Source: MTHGCALW_01499

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00500	0.00499		100	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TCLP

Lab ID: 240-79231-B-1-C SD ^5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-79233-1

Matrix: Water Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Arsenic	0.0070	J	0.0260	J	NC		6010B
Barium	0.17	J	0.171	J	1.0		6010B
Cadmium	0.023	J	0.0220	J	2.7		6010B
Chromium	0.018	J	0.0169	J	NC		6010B
Lead	0.015	J	0.0127	J	NC		6010B
Selenium	0.011	J	0.026	U	NC		6010B
Silver	0.00092	U	0.0046	U	NC		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-79233-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010B MDL Date: 05/09/2016 09:01

Prep Method: 3010A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Arsenic	189.042	0.05	0.0033
Barium	493.409	0.5	0.0024
Cadmium	226.502	0.05	0.00029
Chromium	267.716	0.05	0.00055
Lead	220.353	0.05	0.0019
Selenium	196.026	0.05	0.0051
Silver	328.068	0.05	0.00092

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-79233-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010B XMDL Date: 05/09/2016 09:02

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (mg/L)
Arsenic	189.042	10	0.0033
Barium	493.409	200	0.0024
Cadmium	226.502	2	0.00029
Chromium	267.716	5	0.00055
Lead	220.353	5	0.0019
Selenium	196.026	15	0.0051
Silver	328.068	5	0.00092

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-79233-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:32

Prep Method: 7470A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury	253.7	0.002	0.00013

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Canton Job Number: 240-79233-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:32

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (mg/L)
Mercury	253.7	2	0.00013

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-79233-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 01/20/2017

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.030656				0.066045	
Antimony		-0.000064			-0.000244			-0.000054						0.002941	
Arsenic		0.000016			-0.000333	0.000782			-0.000355	0.002123					
Beryllium														0.000282	
Cadmium			0.01262					0.000002							
Chromium									0.000453						
Cobalt													0.001895		
Copper				0.000018	0.000361			-0.000017					-0.003237		
Lead		-0.000086					0.000101	0.000044			0.000131	0.00004			
Lithium				0.000011											
Nickel					0.000518			0.000081							
Selenium		-0.00002							0.000338						
Thallium		0.000022			0.002708			-0.000025	0.000571					0.001707	
Vanadium								0.000067							
Zinc						-0.001092									

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-79233-1

SDG No.:

Instrument ID: I12 Date: 01/24/2017 12:29

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic		5000	6010B
Barium		25000	6010B
Cadmium		2000	6010B
Chromium		20000	6010B
Lead		15000	6010B
Selenium		10000	6010B
Silver		2000	6010B

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-278088/1-B	05/09/2017 14:00	278141		50	50
MB 240-278141/2-A	05/09/2017 14:00	278141		50	50
LCS 240-278141/3-A	05/09/2017 14:00	278141		50	50
240-79231-B-1-D MS ^5	05/09/2017 14:00	278141		50	50
240-79231-B-1-E MSD ^5	05/09/2017 14:00	278141		50	50
240-79233-3	05/09/2017 14:00	278141		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LB 240-278088/1-C	05/09/2017 14:00	278142		50	50
MB 240-278142/2-A	05/09/2017 14:00	278142		50	50
LCS 240-278142/3-A	05/09/2017 14:00	278142		50	50
240-79231-B-1-G MS	05/09/2017 14:00	278142		50	50
240-79231-B-1-H MSD	05/09/2017 14:00	278142		50	50
240-79233-3	05/09/2017 14:00	278142		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 05/10/2017 07:38 End Date: 05/11/2017 05:39

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ICIS 240-278348/1	1		07:38	X	X	X	X	X	X	X													
CALSTD 240-278348/2 IC			07:43	X	X	X	X	X	X	X													
CALSTD 240-278348/3 IC			07:48	X	X	X	X	X	X	X													
ICV 240-278348/4	1		07:52	X	X	X	X	X	X	X													
ICB 240-278348/5	1		07:56	X	X	X	X	X	X	X													
ICVL 240-278348/6	1		08:01	X	X	X	X	X	X	X													
ZZZZZZ			08:06																				
ICSA 240-278348/8	1		08:10	X	X	X	X	X	X	X													
ICSAB 240-278348/9	1		08:15	X	X	X	X	X	X	X													
CCV 240-278348/10			08:19																				
CCB 240-278348/11			08:23																				
ZZZZZZ			08:28																				
ZZZZZZ			08:32																				
ZZZZZZ			08:37																				
ZZZZZZ			08:41																				
ZZZZZZ			08:46																				
ZZZZZZ			08:50																				
CCV 240-278348/18			08:56																				
CCB 240-278348/19			09:00																				
ZZZZZZ			09:04																				
ZZZZZZ			09:09																				
ZZZZZZ			09:13																				
ZZZZZZ			09:17																				
ZZZZZZ			09:22																				
ZZZZZZ			09:26																				
ZZZZZZ			09:31																				
ZZZZZZ			09:35																				
ZZZZZZ			09:39																				
ZZZZZZ			09:44																				
CCV 240-278348/30			09:48																				
CCB 240-278348/31			09:52																				
ZZZZZZ			09:57																				
ZZZZZZ			10:01																				
ZZZZZZ			10:06																				
ZZZZZZ			10:10																				
ZZZZZZ			10:15																				
ZZZZZZ			10:19																				
ZZZZZZ			10:24																				
ZZZZZZ			10:28																				
ZZZZZZ			10:32																				
CCVL 240-278348/41			10:37																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 05/10/2017 07:38 End Date: 05/11/2017 05:39

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
CCV 240-278348/42			10:41																				
CCB 240-278348/43			10:45																				
CCV 240-278348/44			10:57																				
CCB 240-278348/45			11:37																				
CCV 240-278348/46			12:28																				
CCB 240-278348/47			12:32																				
ZZZZZZ			12:37																				
ZZZZZZ			12:42																				
ZZZZZZ			12:46																				
ZZZZZZ			12:50																				
ZZZZZZ			12:55																				
ZZZZZZ			12:59																				
CCV 240-278348/54	1		13:04	X	X	X	X	X	X	X													
CCB 240-278348/55	1		13:08	X	X	X	X	X	X	X													
ZZZZZZ			13:13																				
ZZZZZZ			13:17																				
ZZZZZZ			13:22																				
ZZZZZZ			13:26																				
ZZZZZZ			13:31																				
ZZZZZZ			13:35																				
ZZZZZZ			13:40																				
ZZZZZZ			13:44																				
ZZZZZZ			13:49																				
LB 240-278088/1-B	1	P	13:53	X	X	X	X	X	X	X													
CCV 240-278348/66	1		13:58	X	X	X	X	X	X	X													
CCB 240-278348/67	1		14:02	X	X	X	X	X	X	X													
MB 240-278141/2-A	1	T	14:07	X	X	X	X	X	X	X													
LCS 240-278141/3-A	1	T	14:11	X	X	X	X	X	X	X													
ZZZZZZ			14:16																				
240-79231-B-1-C SD ^5	5	P	14:20	X	X	X	X	X	X	X													
ZZZZZZ			14:25																				
240-79231-B-1-D MS ^5	5	P	14:29	X	X	X	X	X	X	X													
240-79231-B-1-E MSD ^5	5	P	14:34	X	X	X	X	X	X	X													
ZZZZZZ			14:38																				
ZZZZZZ			14:43																				
CCVL 240-278348/77			14:47																				
CCV 240-278348/78	1		14:52	X	X	X	X	X	X	X													
CCB 240-278348/79	1		14:56	X	X	X	X	X	X	X													
ZZZZZZ			15:00																				
ZZZZZZ			15:05																				
ZZZZZZ			15:09																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 05/10/2017 07:38 End Date: 05/11/2017 05:39

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			15:14																				
ZZZZZZ			15:18																				
ZZZZZZ			15:22																				
ZZZZZZ			15:26																				
ZZZZZZ			15:30																				
ZZZZZZ			15:35																				
ZZZZZZ			15:39																				
CCV 240-278348/90			15:44																				
CCB 240-278348/91			15:48																				
ZZZZZZ			15:52																				
ZZZZZZ			15:57																				
ZZZZZZ			16:01																				
ZZZZZZ			16:06																				
ZZZZZZ			16:10																				
ZZZZZZ			16:15																				
ZZZZZZ			16:19																				
ZZZZZZ			16:24																				
ZZZZZZ			16:28																				
ZZZZZZ			16:33																				
CCV 240-278348/102			16:37																				
CCB 240-278348/103			16:41																				
ZZZZZZ			16:46																				
ZZZZZZ			16:51																				
ZZZZZZ			16:55																				
ZZZZZZ			17:00																				
ZZZZZZ			17:04																				
ZZZZZZ			17:09																				
ZZZZZZ			17:13																				
ZZZZZZ			17:18																				
ZZZZZZ			17:22																				
ZZZZZZ			17:26																				
CCV 240-278348/114			17:30																				
CCB 240-278348/115			17:35																				
ZZZZZZ			17:39																				
ZZZZZZ			17:44																				
ZZZZZZ			17:48																				
ZZZZZZ			17:53																				
ZZZZZZ			17:57																				
ZZZZZZ			18:02																				
ZZZZZZ			18:07																				
ZZZZZZ			18:11																				
ZZZZZZ			18:16																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 05/10/2017 07:38 End Date: 05/11/2017 05:39

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			18:20																				
CCV 240-278348/126			18:25																				
CCB 240-278348/127			18:29																				
ZZZZZZ			18:34																				
ZZZZZZ			18:38																				
ZZZZZZ			18:43																				
ZZZZZZ			18:47																				
ZZZZZZ			18:52																				
ZZZZZZ			18:57																				
ZZZZZZ			19:01																				
ZZZZZZ			19:06																				
ZZZZZZ			19:10																				
ZZZZZZ			19:15																				
CCV 240-278348/138			19:19																				
CCB 240-278348/139			19:23																				
ZZZZZZ			19:28																				
ZZZZZZ			19:32																				
ZZZZZZ			19:37																				
ZZZZZZ			19:41																				
ZZZZZZ			19:45																				
ZZZZZZ			19:49																				
ZZZZZZ			19:54																				
ZZZZZZ			19:58																				
ZZZZZZ			20:02																				
ZZZZZZ			20:07																				
CCV 240-278348/150			20:11																				
CCB 240-278348/151			20:15																				
ZZZZZZ			20:20																				
ZZZZZZ			20:24																				
ZZZZZZ			20:29																				
ZZZZZZ			20:34																				
ZZZZZZ			20:38																				
ZZZZZZ			20:43																				
ZZZZZZ			20:47																				
ZZZZZZ			20:52																				
ZZZZZZ			20:56																				
ZZZZZZ			21:01																				
CCV 240-278348/162			21:06																				
CCB 240-278348/163			21:10																				
ZZZZZZ			21:14																				
ZZZZZZ			21:19																				
ZZZZZZ			21:23																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 05/10/2017 07:38 End Date: 05/11/2017 05:39

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			21:28																				
ZZZZZZ			21:33																				
ZZZZZZ			21:37																				
ZZZZZZ			21:42																				
ZZZZZZ			21:46																				
ZZZZZZ			21:50																				
ZZZZZZ			21:55																				
CCV 240-278348/174			22:00																				
CCB 240-278348/175			22:04																				
ZZZZZZ			22:08																				
ZZZZZZ			22:13																				
ZZZZZZ			22:18																				
ZZZZZZ			22:22																				
ZZZZZZ			22:27																				
ZZZZZZ			22:31																				
ZZZZZZ			22:36																				
ZZZZZZ			22:40																				
ZZZZZZ			22:45																				
ZZZZZZ			22:49																				
CCV 240-278348/186			22:54																				
CCB 240-278348/187			22:58																				
ZZZZZZ			23:03																				
ZZZZZZ			23:07																				
ZZZZZZ			23:12																				
ZZZZZZ			23:16																				
ZZZZZZ			23:21																				
ZZZZZZ			23:26																				
ZZZZZZ			23:30																				
ZZZZZZ			23:35																				
ZZZZZZ			23:40																				
ZZZZZZ			23:45																				
CCV 240-278348/198			23:50																				
CCB 240-278348/199			23:54																				
ZZZZZZ			23:58																				
ZZZZZZ			00:03																				
ZZZZZZ			00:08																				
ZZZZZZ			00:13																				
ZZZZZZ			00:17																				
ZZZZZZ			00:22																				
ZZZZZZ			00:26																				
ZZZZZZ			00:31																				
ZZZZZZ			00:35																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 05/10/2017 07:38 End Date: 05/11/2017 05:39

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			00:40																				
CCV 240-278348/210			00:44																				
CCB 240-278348/211			00:48																				
ZZZZZZ			00:53																				
ZZZZZZ			00:57																				
ZZZZZZ			01:02																				
ZZZZZZ			01:06																				
ZZZZZZ			01:10																				
ZZZZZZ			01:14																				
ZZZZZZ			01:19																				
ZZZZZZ			01:24																				
ZZZZZZ			01:28																				
ZZZZZZ			01:33																				
CCV 240-278348/222			01:37																				
CCB 240-278348/223			01:42																				
ZZZZZZ			01:46																				
ZZZZZZ			01:51																				
ZZZZZZ			01:55																				
ZZZZZZ			02:00																				
ZZZZZZ			02:04																				
ZZZZZZ			02:09																				
ZZZZZZ			02:14																				
ZZZZZZ			02:18																				
ZZZZZZ			02:23																				
ZZZZZZ			02:27																				
CCV 240-278348/234	1		02:32	X	X	X	X	X	X	X													
CCB 240-278348/235	1		02:36	X	X	X	X	X	X	X													
ZZZZZZ			02:41																				
240-79233-3	1	P	02:45	X	X	X	X	X	X	X													
ZZZZZZ			02:50																				
ZZZZZZ			02:55																				
ZZZZZZ			02:59																				
ZZZZZZ			03:04																				
ZZZZZZ			03:09																				
ZZZZZZ			03:13																				
ZZZZZZ			03:18																				
ZZZZZZ			03:22																				
CCV 240-278348/246	1		03:27	X	X	X	X	X	X	X													
CCB 240-278348/247	1		03:31	X	X	X	X	X	X	X													
ZZZZZZ			03:36																				
ZZZZZZ			03:40																				
ZZZZZZ			03:45																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: I12 Method: 6010B

Start Date: 05/10/2017 07:38 End Date: 05/11/2017 05:39

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	As	Ba	Cd	Cr	Pb	Se													
ZZZZZZ			03:49																				
ZZZZZZ			03:54																				
ZZZZZZ			03:58																				
ZZZZZZ			04:03																				
ZZZZZZ			04:07																				
ZZZZZZ			04:12																				
ZZZZZZ			04:16																				
CCV 240-278348/258			04:21																				
CCB 240-278348/259			04:25																				
ZZZZZZ			04:30																				
ZZZZZZ			04:34																				
ZZZZZZ			04:39																				
ZZZZZZ			04:44																				
ZZZZZZ			04:48																				
ZZZZZZ			04:53																				
ZZZZZZ			04:58																				
ZZZZZZ			05:03																				
ZZZZZZ			05:07																				
ZZZZZZ			05:12																				
CCV 240-278348/270			05:16																				
CCB 240-278348/271			05:21																				
ZZZZZZ			05:25																				
ZZZZZZ			05:30																				
CCV 240-278348/274			05:34																				
CCB 240-278348/275			05:39																				

Prep Types

P = TCLP

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: H3 Method: 7470A

Start Date: 05/10/2017 12:40 End Date: 05/10/2017 18:39

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 240-278323/1-A			12:40	X																			
IC 240-278323/2-A			12:42	X																			
IC 240-278323/3-A			12:44	X																			
IC 240-278323/4-A			12:46	X																			
IC 240-278323/5-A			12:48	X																			
IC 240-278323/6-A			12:50	X																			
ICV 240-278323/7-A	1		12:55	X																			
ICB 240-278323/8-A	1		12:57	X																			
CRA 240-278323/9-A	1		12:59	X																			
CCV 240-278323/10-A			13:01																				
CCB 240-278323/11-A			13:03																				
ZZZZZZ			13:05																				
ZZZZZZ			13:07																				
ZZZZZZ			13:09																				
ZZZZZZ			13:11																				
ZZZZZZ			13:14																				
ZZZZZZ			13:15																				
ZZZZZZ			13:18																				
ZZZZZZ			13:20																				
CCV 240-278323/10-A			13:22																				
CCB 240-278323/11-A			13:24																				
ZZZZZZ			13:27																				
ZZZZZZ			13:28																				
ZZZZZZ			13:30																				
CCV 240-278323/10-A			13:32																				
CCB 240-278323/11-A			13:34																				
ZZZZZZ			13:37																				
ZZZZZZ			13:39																				
ZZZZZZ			13:41																				
ZZZZZZ			13:43																				
ZZZZZZ			13:45																				
ZZZZZZ			13:48																				
ZZZZZZ			13:50																				
ZZZZZZ			13:52																				
ZZZZZZ			13:53																				
ZZZZZZ			13:55																				
CCV 240-278323/10-A	1		13:57	X																			
CCB 240-278323/11-A	1		13:59	X																			
ZZZZZZ			14:02																				
ZZZZZZ			14:04																				
ZZZZZZ			14:06																				
ZZZZZZ			14:08																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: H3 Method: 7470A

Start Date: 05/10/2017 12:40 End Date: 05/10/2017 18:39

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			14:09																				
LB 240-278088/1-C	1	P	14:11	X																			
MB 240-278142/2-A	1	T	14:13	X																			
LCS 240-278142/3-A	1	T	14:15	X																			
ZZZZZZ			14:17																				
240-79231-B-1-G MS	1	P	14:20	X																			
CCV 240-278323/10-A	1		14:22	X																			
CCB 240-278323/11-A	1		14:24	X																			
240-79231-B-1-H MSD	1	P	14:26	X																			
ZZZZZZ			14:28																				
ZZZZZZ			14:31																				
ZZZZZZ			14:33																				
ZZZZZZ			14:35																				
ZZZZZZ			14:37																				
ZZZZZZ			14:39																				
ZZZZZZ			14:40																				
ZZZZZZ			14:42																				
ZZZZZZ			14:44																				
CCV 240-278323/10-A	1		14:46	X																			
CCB 240-278323/11-A	1		14:48	X																			
240-79233-3	1	P	14:51	X																			
ZZZZZZ			14:52																				
ZZZZZZ			14:54																				
ZZZZZZ			14:56																				
ZZZZZZ			14:58																				
ZZZZZZ			15:00																				
ZZZZZZ			15:03																				
ZZZZZZ			15:05																				
ZZZZZZ			15:07																				
ZZZZZZ			15:09																				
CCV 240-278323/10-A	1		15:11	X																			
CCB 240-278323/11-A	1		15:13	X																			
ZZZZZZ			15:16																				
ZZZZZZ			15:18																				
ZZZZZZ			15:20																				
ZZZZZZ			15:22																				
ZZZZZZ			15:24																				
ZZZZZZ			15:26																				
ZZZZZZ			15:28																				
ZZZZZZ			15:30																				
ZZZZZZ			15:32																				
ZZZZZZ			15:34																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: H3 Method: 7470A

Start Date: 05/10/2017 12:40 End Date: 05/10/2017 18:39

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
CCV 240-278323/10-A			15:36																				
CCB 240-278323/11-A			15:38																				
ZZZZZZ			15:40																				
ZZZZZZ			15:42																				
ZZZZZZ			15:44																				
ZZZZZZ			15:46																				
ZZZZZZ			15:48																				
ZZZZZZ			15:50																				
ZZZZZZ			15:52																				
ZZZZZZ			15:54																				
ZZZZZZ			15:56																				
ZZZZZZ			15:58																				
CCV 240-278323/10-A			16:00																				
CCB 240-278323/11-A			16:02																				
ZZZZZZ			16:05																				
ZZZZZZ			16:07																				
ZZZZZZ			16:09																				
ZZZZZZ			16:11																				
ZZZZZZ			16:13																				
ZZZZZZ			16:15																				
ZZZZZZ			16:16																				
ZZZZZZ			16:18																				
ZZZZZZ			16:20																				
ZZZZZZ			16:22																				
CCV 240-278323/10-A			16:24																				
CCB 240-278323/11-A			16:26																				
ZZZZZZ			16:29																				
ZZZZZZ			16:30																				
ZZZZZZ			16:32																				
ZZZZZZ			16:34																				
ZZZZZZ			16:36																				
ZZZZZZ			16:38																				
ZZZZZZ			16:40																				
ZZZZZZ			16:42																				
ZZZZZZ			16:44																				
ZZZZZZ			16:46																				
CCV 240-278323/10-A			16:49																				
CCB 240-278323/11-A			16:51																				
ZZZZZZ			16:53																				
ZZZZZZ			16:55																				
ZZZZZZ			16:57																				
ZZZZZZ			16:59																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: H3 Method: 7470A

Start Date: 05/10/2017 12:40 End Date: 05/10/2017 18:39

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			17:01																				
ZZZZZZ			17:03																				
ZZZZZZ			17:05																				
ZZZZZZ			17:07																				
ZZZZZZ			17:09																				
ZZZZZZ			17:11																				
CCV 240-278323/10-A			17:13																				
CCB 240-278323/11-A			17:15																				
ZZZZZZ			17:17																				
ZZZZZZ			17:19																				
ZZZZZZ			17:21																				
ZZZZZZ			17:23																				
ZZZZZZ			17:25																				
ZZZZZZ			17:27																				
ZZZZZZ			17:29																				
CCV 240-278323/10-A			17:31																				
CCB 240-278323/11-A			17:33																				
ZZZZZZ			17:35																				
ZZZZZZ			17:37																				
ZZZZZZ			17:39																				
CCV 240-278323/10-A			17:41																				
CCB 240-278323/11-A			17:43																				
ZZZZZZ			17:46																				
ZZZZZZ			17:48																				
ZZZZZZ			17:49																				
ZZZZZZ			17:52																				
ZZZZZZ			17:54																				
ZZZZZZ			17:55																				
ZZZZZZ			17:58																				
ZZZZZZ			18:00																				
ZZZZZZ			18:01																				
ZZZZZZ			18:03																				
CCV 240-278323/10-A			18:05																				
CCB 240-278323/11-A			18:07																				
ZZZZZZ			18:10																				
ZZZZZZ			18:12																				
ZZZZZZ			18:14																				
ZZZZZZ			18:16																				
ZZZZZZ			18:18																				
ZZZZZZ			18:19																				
ZZZZZZ			18:21																				
ZZZZZZ			18:23																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: H3 Method: 7470A

Start Date: 05/10/2017 12:40 End Date: 05/10/2017 18:39

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			18:25																				
ZZZZZZ			18:27																				
CCV 240-278323/10-A			18:29																				
CCB 240-278323/11-A			18:31																				
ZZZZZZ			18:34																				
ZZZZZZ			18:36																				
CCV 240-278323/10-A			18:37																				
CCB 240-278323/11-A			18:39																				

Prep Types

P = TCLP

T = Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Batch Number: 278088 Batch Start Date: 05/08/17 16:00 Batch Analyst: Henry, Meagan

Batch Method: 1311 Batch End Date: 05/09/17 08:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXpH(0-14) 00017	EXTCLPBUFF1 01143	EXTCLPFILTERS 00032	EXTCLPHCLW 00054	AnalysisComment	
LB 240-278088/1		1311, 3010A, 6010B		1 mL	1 mL	1	1 mL	Buffer 1	
240-79233-E-3	WC-MRCGW-050417	1311, 3010A, 6010B	P	1 mL	1 mL	1	1 mL	Filter only H2O	

Batch Notes	
Tumbler Rotations per Minute	A, C, E, I, J = 31 rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Batch Number: 278141 Batch Start Date: 05/09/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 3010A Batch End Date: 05/09/17 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MT1to1HCL 00070	MTAGSPIKEW 00070	MTICP1 00063	MTICP2A 00071
LB 240-278088/1-A		3010A, 6010B		50 mL	50 mL	5 mL			
MB 240-278141/2		3010A, 6010B		50 mL	50 mL	5 mL			
LCS 240-278141/3		3010A, 6010B		50 mL	50 mL	5 mL	1 mL	1 mL	1 mL
240-79231-B-1-A MS		3010A, 6010B	P	50 mL	50 mL	5 mL			1 mL
240-79231-B-1-A MSD		3010A, 6010B	P	50 mL	50 mL	5 mL			1 mL
240-79233-E-3-A	WC-MRCGW-050417	3010A, 6010B	P	50 mL	50 mL	5 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTNONRCRA+ODD 00008	MTRCRA 00012	MTTMHNO3 00117			
LB 240-278088/1-A		3010A, 6010B				3 mL			
MB 240-278141/2		3010A, 6010B				3 mL			
LCS 240-278141/3		3010A, 6010B				3 mL			
240-79231-B-1-A MS		3010A, 6010B	P	1 mL	0.5 mL	3 mL			
240-79231-B-1-A MSD		3010A, 6010B	P	1 mL	0.5 mL	3 mL			
240-79233-E-3-A	WC-MRCGW-050417	3010A, 6010B	P			3 mL			

Batch Notes	
Filter Paper ID	9672596
Hot Block ID	HB0
Pipette ID	MP1-MP3-MP5
Digestion Tube/Cup ID	1610138

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Batch Number: 278088 Batch Start Date: 05/08/17 16:00 Batch Analyst: Henry, Meagan

Batch Method: 1311 Batch End Date: 05/09/17 08:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXpH(0-14) 00017	EXTCLPBUFF1 01143	EXTCLPFILTERS 00032	EXTCLPHCLW 00054	AnalysisComment	
LB 240-278088/1		1311, 7470A, 7470A		1 mL	1 mL	1	1 mL	Buffer 1	
240-79233-E-3	WC-MRCGW-050417	1311, 7470A, 7470A	P	1 mL	1 mL	1	1 mL	Filter only H2O	

Batch Notes	
Tumbler Rotations per Minute	A, C, E, I, J = 31 rpm

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Batch Number: 278142 Batch Start Date: 05/09/17 14:00 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 05/09/17 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00042	MTHGCALW 01499	MTKMN04W 00130
LB 240-278088/1-A		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
MB 240-278142/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-278142/3		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-79231-B-1-A MS		7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-79231-B-1-A MSD		7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-79233-E-3-A	WC-MRCGW-050417	7470A, 7470A	P	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00117					
LB 240-278088/1-A		7470A, 7470A		1.25 mL					
MB 240-278142/2		7470A, 7470A		1.25 mL					
LCS 240-278142/3		7470A, 7470A		1.25 mL					
240-79231-B-1-A MS		7470A, 7470A	P	1.25 mL					
240-79231-B-1-A MSD		7470A, 7470A	P	1.25 mL					
240-79233-E-3-A	WC-MRCGW-050417	7470A, 7470A	P	1.25 mL					

Batch Notes	
Batch Comment	take out temps within range
Hot Block ID	C1
Pipette ID	MP2
Digestion Tube/Cup ID	1610138

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Batch Number: 278323 Batch Start Date: 05/10/17 09:05 Batch Analyst: Nguyen, Diem

Batch Method: 7470A Batch End Date: 05/10/17 11:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00059	MTH2S04 00042	MTHGCALW 01500	MTHgICV_00001 00172
ICV 240-278323/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-278323/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-278323/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-278323/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-278323/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00130	MTTMHNO3 00117				
ICV 240-278323/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-278323/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-278323/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-278323/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-278323/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Hot Block ID	C2
Pipette ID	A4, MP1, A3
Digestion Tube/Cup ID	1610138

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-79233-1

SDG No.:

Project: LM MRC Waste Characterization

Client Sample ID	Lab Sample ID
WC-MRCGW-050417	240-79233-3

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WC-MRCGW-050417 Lab Sample ID: 240-79233-3

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG ID.:

Matrix: Water Date Sampled: 05/04/2017 11:00

Reporting Basis: WET Date Received: 05/06/2017 09:40

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Flashpoint	>200	1.00	1.00	Degrees F			1	1010A

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 279063 Date: 05/16/2017 10:24								
1010A		240-79458-C-3	Flashpoint	>200	Degrees F			
1010A		240-79458-C-3 DU	Flashpoint	>200	Degrees F	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 279063	Date: 05/16/2017 06:30										
						LCS Source: WCP-XYLENE_00019					
1010A	LCS 240-279063/1	Flashpoint	79.00		Degrees F	81.0	98	97-103			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-79233-1

SDG Number:

Matrix: Water Instrument ID: WHITEY

Method: 1010A RL Date: 01/28/2010 09:55

Analyte	Wavelength/ Mass	RL (Degrees F)	
Flashpoint		1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-79233-1

SDG Number:

Matrix: Water Instrument ID: WHITEY

Method: 1010A XRL Date: 01/28/2010 09:55

Analyte	Wavelength/ Mass	XRL (Degrees F)	
Flashpoint		1	

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Instrument ID: WHITEY Method: 1010A

Start Date: 05/16/2017 06:30 End Date: 05/16/2017 12:34

Lab Sample ID	D / F	Type	Time	Analytes																				
				FP																				
LCS 240-279063/1	1	T	06:30	X																				
ZZZZZZ			06:56																					
ZZZZZZ			07:22																					
ZZZZZZ			07:48																					
ZZZZZZ			08:14																					
ZZZZZZ			08:40																					
ZZZZZZ			09:06																					
ZZZZZZ			09:32																					
ZZZZZZ			09:58																					
240-79458-C-3 DU	1	T	10:24	X																				
ZZZZZZ			10:50																					
ZZZZZZ			11:16																					
ZZZZZZ			11:42																					
240-79233-3	1	T	12:08	X																				
ZZZZZZ			12:34																					

Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-79233-1

SDG No.:

Batch Number: 279063 Batch Start Date: 05/16/17 06:30 Batch Analyst: Harshman, Tom

Batch Method: 1010A Batch End Date: 05/16/17 13:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	InitialTemp	WCP-XYLENE 00019			
LCS 240-279063/1		1010A		70 mL	68 Degrees F	70 mL			
240-79458-C-3 DU		1010A	T	70 mL	60 Degrees F				
240-79233-H-3	WC-MRCGW-050417	1010A	T	70 mL	69 Degrees F				

Batch Notes	
Equipment ID	Whitey

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Baltimore
2526 Connelley Drive
Suite F
Hanover, MD 21076
Phone: 410.766.2516 Fax:

180325

Chain of Custody Record

4.2/C3.9

000488

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

BALTIMORE

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact			
Company Name: TEtra Tech Inc.	Project Manager: Tony Apanavage	Site Contact: Josh Mullis	Date: 5/4/17
Address: 20251 Century Blvd.	Tel/Fax: 301 528-3021	Lab Contact: McFadden	Carrier: Fed Ex
City/State/Zip: Germantown, MD 20874	Analysis Turnaround Time		
Phone: 301 528-3021	☐ CALENDAR DAYS ☐ WORKING DAYS		
Fax:	TAT if different from Below ____		
Project Name: Waste Char MSA/MRC	☐ 2 weeks		
Site: MRC/MSA	☐ 1 week		
PO# 112IC07776 / 112IC08118	☐ 2 days		
	☐ 1 day		

Standard

COC No: 1 of 1 COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs	TCLP metals	PCBs	Ignitability	Sample Specific Notes:
TB-050417	5/4/17	—	G	AQ	2			2	-	-	-	
WC-EW8S-050417	↓	1015	↓	↓	8			3	2	2	1	112IC08118
WC-MRCGW-050417	↓	1100	↓	↓	8			3	2	2	1	112IC07776

240-79233 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments: Waste Characterization Samples from drums MSA / MRC

Custody Seals Intact: ☒ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Walt [signature]	TT INC	5/5/17 / 1201	[signature]	TestAmerica	5-5-2017 / 1201
[signature]	TestAmerica	5-5-2017 / 1436	POP	TAL	5-6-17 940
			Received in Laboratory by:		

Login # : 79233

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Client TETRA TECH Site Name —

Cooler Received on 5-6-17 Opened on 5-6-17

Cooler unpacked by: POP

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

☐ See Multiple Cooler Form

1. Cooler temperature upon receipt
   IR GUN# IR-8 (CF **-0.3** °C) Observed Cooler Temp. 4.2 °C Corrected Cooler Temp. 3.9 °C
   IR GUN #36 (CF **+0.8**°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity (Yes No
   -Were custody seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 11-15 have been checked at the originating laboratory.
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC697954**
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.. Yes No NA
14. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Covered Yes No
15. Was a LL Hg or Me Hg trip blank present? ____ Yes No

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

17. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

Waste Identifcation and Classification Form

Remediation Project	MRC Annual Groundwater Investigation	**State Generated**	MD
Description of Waste			
Generic Name	Purge water	**Solid, Liquid, Gas**	Liquid
		Additional Info.	
Date of Waste Generation	3/8/2017-4/20/2017	**Ongoing (Y/N)?**	N

Description of Process Generating Waste

1 drum of hazardous purge water generated as part of the MRC Annual Groundwater Sampling Program from Block E wells.

Listed Waste ? (Y/N)	Y	**F,K, P or U Codes**	F001

Justification for Waste Classification (attached supporting documentation)

Waste characterization sample not collected and profiled as hazardous based on location of wells in Block E from known TCE-contaminated area. Drum removed from the site June 27, 2017.

Form completed by	Tony Apanavage
Date	5/1/2017

Waste Identifcation and Classification Form

Remediation Project	MRC Annual Groundwater Investigation	**State Generated**	MD
Description of Waste			
Generic Name	Purge water	**Solid, Liquid, Gas**	Liquid
		Additional Info.	
Date of Waste Generation	3/8/2017-4/20/2017	**Ongoing (Y/N)?**	N

Description of Process Generating Waste

4 drum of nonhazardous purge water generated as part of the MRC Annual Groundwater Sampling Program.

Listed Waste ? (Y/N)	N	**F,K, P or U Codes**	

Justification for Waste Classification (attached supporting documentation)

Waste characterization sample collected and profiled as nonhazardous based on sample analysis. Drum removed from the site June 27, 2017.

Form completed by	Tony Apanavage
Date	5/1/2017

APPENDIX E—ANALYTICAL DATA TABLE

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW02A	MRC-MW07A	MRC-MW08A	MRC-MW08B		
SAMPLE ID	MRC-MW02A-041417	MRC-MW07A-040517	MRC-MW08A-041417	MRC-MW08B-042117	MRC-MW08B-042117-	MRC-MW08B-042117-
SAMPLE DATE	20170414	20170405	20170414	20170421	20170421	20170421
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.23 U	NA	0.23 U	0.23 U	0.23 U	NA
1,1,2,2-TETRACHLOROETHANE	0.32 U	NA	0.32 U	0.32 U	0.32 U	NA
1,1,2-TRICHLOROETHANE	0.34 U	NA	0.34 U	0.34 U	0.34 U	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	NA	0.41 U	0.41 U	0.41 U	NA
1,1-DICHLOROETHANE	0.25 U	NA	0.25 U	0.25 U	0.25 U	NA
1,1-DICHLOROETHENE	0.27 U	NA	0.27 U	0.27 U	0.27 U	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.27 U	NA	0.27 U	0.27 U	0.27 U	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	NA	0.47 U	0.47 U	0.47 U	NA
1,2-DIBROMOETHANE	0.23 U	NA	0.23 U	0.23 U	0.23 U	NA
1,2-DICHLOROBENZENE	0.26 U	NA	0.26 U	0.26 U	0.26 U	NA
1,2-DICHLOROETHANE	0.3 U	NA	0.3 U	0.3 U	0.3 U	NA
1,2-DICHLOROPROPANE	0.3 U	NA	0.3 U	0.3 U	0.3 U	NA
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.32 U	NA	0.32 U	0.32 U	0.32 U	NA
1,4-DICHLOROBENZENE	0.23 U	NA	0.23 U	0.23 U	0.23 U	NA
2-BUTANONE	1 U	NA	1 U	1 U	1 U	NA
2-HEXANONE	1.2 U	NA	1.2 U	1.2 U	1.2 U	NA
4-METHYL-2-PENTANONE	0.71 U	NA	0.71 U	0.71 U	0.71 U	NA
ACETONE	1.8 U	NA	1.8 U	1.8 U	1.8 U	NA
BENZENE	0.28 U	NA	0.28 U	0.28 U	0.28 U	NA
BROMODICHLOROMETHANE	0.3 U	NA	0.3 U	0.3 U	0.3 U	NA
BROMOFORM	0.43 U	NA	0.43 U	0.43 U	0.43 U	NA
BROMOMETHANE	0.42 U	NA	0.42 U	0.42 U	0.42 U	NA
CARBON DISULFIDE	0.34 U	NA	0.34 U	0.34 U	0.34 U	NA
CARBON TETRACHLORIDE	0.35 U	NA	0.35 U	0.35 U	0.35 U	NA
CHLOROBENZENE	0.32 U	NA	0.32 U	0.32 U	0.32 U	NA
CHLORODIBROMOMETHANE	0.25 U	NA	0.25 U	0.25 U	0.25 U	NA
CHLOROETHANE	0.41 U	NA	0.41 U	0.41 U	0.41 U	NA
CHLOROFORM	0.31 U	NA	0.31 U	0.31 U	0.31 U	NA
CHLOROMETHANE	0.43 U	NA	0.43 U	0.43 U	0.43 U	NA
CIS-1,2-DICHLOROETHENE	0.3 U	NA	0.3 U	0.3 U	0.3 U	NA
CIS-1,3-DICHLOROPROPENE	0.26 U	NA	0.26 U	0.26 U	0.26 U	NA
CYCLOHEXANE	0.44 U	NA	0.44 U	0.44 U	0.44 U	NA
DICHLORODIFLUOROMETHANE	0.91 J	NA	0.5 U	0.5 UJ	0.5 UJ	NA
ETHYLBENZENE	0.26 U	NA	0.26 U	0.26 U	0.26 U	NA
ISOPROPYLBENZENE	0.21 U	NA	0.21 U	0.21 U	0.21 U	NA
METHYL ACETATE	1.4 U	NA	1.4 U	1.4 U	1.4 U	NA
METHYL CYCLOHEXANE	0.45 U	NA	0.45 U	0.45 U	0.45 U	NA
METHYL TERT-BUTYL ETHER	0.27 U	NA	0.27 U	0.27 U	0.27 U	NA
METHYLENE CHLORIDE	0.53 U	NA	0.53 U	0.53 U	0.53 U	NA
STYRENE	0.23 U	NA	0.23 U	0.23 U	0.23 U	NA
TETRACHLOROETHENE	0.3 U	NA	0.3 U	0.3 U	0.3 U	NA
TOLUENE	0.23 U	NA	0.23 U	0.23 U	0.23 U	NA
TOTAL XYLENES	0.24 U	NA	0.24 U	0.24 U	0.24 U	NA
TRANS-1,2-DICHLOROETHENE	0.29 U	NA	0.29 U	0.29 U	0.29 U	NA
TRANS-1,3-DICHLOROPROPENE	0.31 U	NA	0.31 U	0.31 U	0.31 U	NA
TRICHLOROETHENE	0.33 U	NA	0.33 U	0.34 J	0.34 J	NA
TRICHLOROFLUOROMETHANE	3.6	NA	0.5 U	0.5 U	0.5 U	NA
VINYL CHLORIDE	0.45 U	NA	0.45 U	0.45 U	0.45 U	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW02A	MRC-MW07A	MRC-MW08A	MRC-MW08B		
SAMPLE ID	MRC-MW02A-041417	MRC-MW07A-040517	MRC-MW08A-041417	MRC-MW08B-042117	MRC-MW08B-042117-	MRC-MW08B-042117-
SAMPLE DATE	20170414	20170405	20170414	20170421	20170421	20170421
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	NA	4.3	0.36	0.17 J	0.15	0.13 J
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW02A	MRC-MW07A	MRC-MW08A	MRC-MW08B		
SAMPLE ID	MRC-MW02A-041417	MRC-MW07A-040517	MRC-MW08A-041417	MRC-MW08B-042117	MRC-MW08B-042117-	MRC-MW08B-042117-
SAMPLE DATE	20170414	20170405	20170414	20170421	20170421	20170421
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	0.047 UJ	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW10A	MRC-MW11A	MRC-MW11C			MRC-MW12A
SAMPLE ID	MRC-MW10A-041417	MRC-MW11A-040717	MRC-MW11C-041117	MRC-MW11C-041117-20170411	MRC-MW11C-041117-20170411	MRC-MW12A-041117
SAMPLE DATE	20170414	20170407	20170411			20170411
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	NA	0.23 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.32 U	0.32 U	0.32 U	NA	0.32 U
1,1,2-TRICHLOROETHANE	0.34 U	0.34 U	0.34 U	0.34 U	NA	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 UJ	0.41 UJ	0.41 UJ	NA	0.41 UJ
1,1-DICHLOROETHANE	0.25 U	0.25 U	0.25 U	0.25 U	NA	3.4
1,1-DICHLOROETHENE	0.27 U	0.27 U	0.27 U	0.27 U	NA	3.8
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.27 U	NA	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.47 U	NA	0.47 U
1,2-DIBROMOETHANE	0.23 U	0.23 U	0.23 U	0.23 U	NA	0.23 U
1,2-DICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U	NA	0.26 U
1,2-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.3 U	NA	2
1,2-DICHLOROPROPANE	0.3 U	0.3 U	0.3 U	0.3 U	NA	0.3 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U	NA	0.32 U
1,4-DICHLOROBENZENE	0.23 U	0.23 U	0.23 U	0.23 U	NA	0.23 U
2-BUTANONE	1 U	1 U	1 U	1 U	NA	2.2 J
2-HEXANONE	1.2 U	1.2 U	1.2 U	1.2 U	NA	1.2 U
4-METHYL-2-PENTANONE	0.71 U	0.71 U	0.71 U	0.71 U	NA	0.71 U
ACETONE	2.5 J	1.8 U	1.8 U	1.8 U	NA	2.8 J
BENZENE	0.28 U	0.28 U	0.28 U	0.28 U	NA	4.8
BROMODICHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	NA	0.3 U
BROMOFORM	0.43 U	0.43 U	0.43 U	0.43 U	NA	0.43 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U	NA	0.42 U
CARBON DISULFIDE	0.34 U	0.34 UJ	0.34 UJ	0.34 UJ	NA	0.34 UJ
CARBON TETRACHLORIDE	0.35 U	0.35 U	0.35 U	0.35 U	NA	0.35 U
CHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U	NA	0.32 U
CHLORODIBROMOMETHANE	0.25 U	0.25 U	0.25 U	0.25 U	NA	0.25 U
CHLOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U	NA	9.5
CHLOROFORM	0.31 U	0.31 U	0.31 U	0.31 U	NA	0.31 U
CHLOROMETHANE	0.43 U	0.43 U	0.43 U	0.43 U	NA	0.43 U
CIS-1,2-DICHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U	NA	3.8
CIS-1,3-DICHLOROPROPENE	0.26 U	0.26 U	0.26 U	0.26 U	NA	0.26 U
CYCLOHEXANE	0.44 U	0.44 U	0.44 U	0.44 U	NA	0.44 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
ETHYLBENZENE	0.26 U	0.26 U	0.26 U	0.26 U	NA	0.26 U
ISOPROPYLBENZENE	0.21 U	0.21 U	0.21 U	0.21 U	NA	0.21 U
METHYL ACETATE	1.4 U	1.4 U	1.4 U	1.4 U	NA	1.4 U
METHYL CYCLOHEXANE	0.45 U	0.45 UJ	0.45 U	0.45 U	NA	0.45 U
METHYL TERT-BUTYL ETHER	0.27 U	0.27 U	0.27 U	0.27 U	NA	0.27 U
METHYLENE CHLORIDE	0.53 U	0.53 U	0.53 U	0.53 U	NA	0.53 U
STYRENE	0.23 U	0.23 U	0.23 U	0.23 U	NA	0.23 U
TETRACHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U	NA	0.3 U
TOLUENE	0.23 U	0.23 U	0.23 U	0.23 U	NA	0.23 U
TOTAL XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	NA	0.24 U
TRANS-1,2-DICHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	NA	0.51 J
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.31 U	0.31 U	0.31 U	NA	0.31 U
TRICHLOROETHENE	0.33 U	0.33 U	0.33 U	0.33 U	NA	0.33 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
VINYL CHLORIDE	0.45 U	0.45 U	0.45 U	0.45 U	NA	8.3

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW10A	MRC-MW11A	MRC-MW11C			MRC-MW12A
SAMPLE ID	MRC-MW10A-041417	MRC-MW11A-040717	MRC-MW11C-041117	MRC-MW11C-041117-	MRC-MW11C-041117-	MRC-MW12A-041117
SAMPLE DATE	20170414	20170407	20170411	20170411	20170411	20170411
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	13
ETHENE	NA	NA	NA	NA	NA	17
METHANE	NA	NA	NA	NA	NA	8000
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	0.95	0.14 J	0.057 U	0.057 U	NA	150
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	8	0.99 U	0.72 U	0.45 U	4.9
ARSENIC	NA	2.3 J	0.38 J	0.28	0.35 U	12
BARIUM	NA	40	11	11	11	280
BERYLLIUM	NA	0.4 U	0.4 U	0.4 U	0.4 U	7
CADMIUM	NA	0.32 U	0.31 U	0.31 U	0.31 U	0.35 U
CALCIUM	NA	NA	NA	NA	NA	25000
CHROMIUM	NA	10	0.87 J	0.82	0.77 J	82
COBALT	NA	1.9	3.4	3.25	3.1	33
COPPER	NA	10	1.1 U	1.0 U	0.89 U	52
IRON	NA	NA	140	140	130	180000
LEAD	NA	13	0.73 U	0.62 U	0.51 U	50
MAGNESIUM	NA	NA	NA	NA	NA	14000
MANGANESE	NA	NA	39	38	36	4200
MERCURY	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.17 J
MOLYBDENUM	NA	3.2 U	0.51 U	0.51 U	0.51 U	2.6 U
NICKEL	NA	7.5	9.3	9.2	9	80
POTASSIUM	NA	NA	NA	NA	NA	9900
SELENIUM	NA	1.7 J	0.5 J	0.37	0.48 U	5.2
SILICON DIOXIDE	NA	NA	NA	NA	NA	92000
SILVER	NA	0.17 J	0.03 U	0.03 U	0.03 U	0.28 U
SODIUM	NA	NA	NA	NA	NA	22000
THALLIUM	NA	0.28 U	0.28 U	0.28 U	0.28 U	0.36 J
VANADIUM	NA	16	0.64 J	0.46	0.54 U	120
ZINC	NA	52	20	20	20	360

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW10A	MRC-MW11A	MRC-MW11C			MRC-MW12A
SAMPLE ID	MRC-MW10A-041417	MRC-MW11A-040717	MRC-MW11C-041117	MRC-MW11C-041117-	MRC-MW11C-041117-	MRC-MW12A-041117
SAMPLE DATE	20170414	20170407	20170411	20170411	20170411	20170411
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	160
AMMONIA	NA	NA	NA	NA	NA	1.7 J
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	57
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	14
NITRATE-N	NA	NA	NA	NA	NA	0.36
NITRITE-N	NA	NA	NA	NA	NA	0.038 U
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	0.083 J
SULFATE	NA	NA	NA	NA	NA	11
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	380
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW12B	MRC-MW12C	MRC-MW13A	MRC-MW14A	MRC-MW14B	MRC-MW14C
SAMPLE ID	MRC-MW12B-041217	MRC-MW12C-041217	MRC-MW13A-041217	MRC-MW14A-033017	MRC-MW14B-041817	MRC-MW14C-033017
SAMPLE DATE	20170412	20170412	20170412	20170330	20170418	20170330
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	3.2 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROETHANE	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	4.1 U	0.41 UJ	0.41 UJ	0.41 U	0.41 UJ	0.41 U
1,1-DICHLOROETHANE	9.9 J	0.25 U	0.79 J	0.54 J	0.64 J	0.25 U
1,1-DICHLOROETHENE	76	0.27 U	0.27 U	0.43 J	0.27 U	0.27 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	4 J	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	4.7 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	2.6 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	3.2 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	10 U	1 U	1 U	1 U	14	1 U
2-HEXANONE	12 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
4-METHYL-2-PENTANONE	7.1 U	0.71 U	0.71 U	0.71 U	1.1 J	0.71 U
ACETONE	18 UJ	1.8 U	1.8 U	1.8 U	5.3 J	1.8 U
BENZENE	2.8 U	0.28 U	0.28 U	0.28 U	15	0.28 U
BROMODICHLOROMETHANE	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	4.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	4.2 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	3.4 U	0.34 UJ	0.34 UJ	0.34 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	3.5 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	3.2 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	2.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROETHANE	4.1 U	0.41 U	0.41 U	0.41 U	19	0.41 U
CHLOROFORM	3.1 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
CHLOROMETHANE	4.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	170	0.3 U	1	5.2	0.3 U	0.3 U
CIS-1,3-DICHLOROPROPENE	2.6 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CYCLOHEXANE	4.4 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
ETHYLBENZENE	2.6 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	2.1 U	0.21 U	0.21 U	0.21 U	0.32 J	0.21 U
METHYL ACETATE	14 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
METHYL CYCLOHEXANE	4.5 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	2.7 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
METHYLENE CHLORIDE	5.3 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	2.4 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	2.9 U	0.29 U	0.29 U	0.89 J	0.35 J	0.29 U
TRANS-1,3-DICHLOROPROPENE	3.1 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	270	0.33 U	0.33 U	1.1	0.78 J	0.33 U
TRICHLOROFLUOROMETHANE	5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
VINYL CHLORIDE	4.5 U	0.45 U	1.4	0.45 U	0.45 U	0.45 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW12B	MRC-MW12C	MRC-MW13A	MRC-MW14A	MRC-MW14B	MRC-MW14C
SAMPLE ID	MRC-MW12B-041217	MRC-MW12C-041217	MRC-MW13A-041217	MRC-MW14A-033017	MRC-MW14B-041817	MRC-MW14C-033017
SAMPLE DATE	20170412	20170412	20170412	20170330	20170418	20170330
VOLATILE GASES (UG/L)						
ETHANE	0.14 U	NA	NA	NA	22	NA
ETHENE	0.27 J	NA	NA	NA	4.2	NA
METHANE	32	NA	NA	NA	4000	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	100	0.057 U	3.1	1.6	180	0.057 U
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.68 U	0.96 U	NA	0.62 U	0.46 U	1.9 U
ARSENIC	0.69 J	0.44 J	NA	0.94 J	4.4 J	0.93 J
BARIUM	140	8.5	NA	80	150	77
BERYLLIUM	0.4 U	0.48 U	NA	0.4 U	0.4 U	0.4 U
CADMIUM	0.31 U	0.31 U	NA	0.31 U	0.31 U	0.31 U
CALCIUM	9500	NA	NA	NA	12000	NA
CHROMIUM	0.3 J	1.1 J	NA	0.26 U	1.2 J	2
COBALT	38	5.6	NA	13	26	8.6
COPPER	0.36 U	2.2	NA	0.74 U	0.94 J	1.4 U
IRON	22000	NA	NA	NA	64000	NA
LEAD	0.37 J	0.77 J	NA	0.21 U	0.64 U	0.91 U
MAGNESIUM	8000	NA	NA	NA	12000	NA
MANGANESE	3100	NA	NA	NA	2000	NA
MERCURY	0.13 U	0.13 U	NA	0.13 U	0.13 U	0.13 U
MOLYBDENUM	0.51 U	0.51 U	NA	0.51 U	1.2 J	0.52 U
NICKEL	56	7.7	NA	14	34	14
POTASSIUM	3000 J	NA	NA	NA	2900 J	NA
SELENIUM	0.54 J	0.64 J	NA	3 U	0.67 J	0.64 U
SILICON DIOXIDE	11000	NA	NA	NA	12000	NA
SILVER	0.03 U	0.03 U	NA	0.03 U	0.03 U	0.093 U
SODIUM	16000	NA	NA	NA	300000	NA
THALLIUM	0.28 U	0.28 U	NA	0.28 U	0.28 U	0.28 U
VANADIUM	0.54 U	1 J	NA	0.54 U	5.6	2.3 U
ZINC	54	40	NA	6.2 U	6.5 J	15 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW12B	MRC-MW12C	MRC-MW13A	MRC-MW14A	MRC-MW14B	MRC-MW14C
SAMPLE ID	MRC-MW12B-041217	MRC-MW12C-041217	MRC-MW13A-041217	MRC-MW14A-033017	MRC-MW14B-041817	MRC-MW14C-033017
SAMPLE DATE	20170412	20170412	20170412	20170330	20170418	20170330
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	52	NA	NA	NA	600	NA
AMMONIA	0.87 U	NA	NA	NA	0.87 U	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	22	NA	NA	NA	82	NA
DISSOLVED ORGANIC CARBON	0.67 J	NA	NA	NA	15	NA
NITRATE-N	0.11	NA	NA	NA	0.035 U	NA
NITRITE-N	0.038 U	NA	NA	NA	0.038 U	NA
ORTHOPHOSPHATE-P	0.08 J	NA	NA	NA	0.26 U	NA
SULFATE	16	NA	NA	NA	0.13 U	NA
TOTAL DISSOLVED SOLIDS	130	NA	NA	NA	850	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW15A			MRC-MW16A	MRC-MW17A	MRC-MW18A
SAMPLE ID	MRC-MW15A-040717	MRC-MW15A-040717-20170407	MRC-MW15A-040717-20170407	MRC-MW16A-060717	MRC-MW17A-040517	MRC-MW18A-040517
SAMPLE DATE	20170407			20170607	20170405	20170405
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	NA	NA	NA	0.58 U	0.92 U	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	0.8 U	1.3 U	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	0.85 U	1.4 U	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	NA	1 U	1.6 UJ	NA
1,1-DICHLOROETHANE	NA	NA	NA	27	1 U	NA
1,1-DICHLOROETHENE	NA	NA	NA	59	1.1 U	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	0.68 U	1.1 U	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	1.2 U	1.9 U	NA
1,2-DIBROMOETHANE	NA	NA	NA	0.58 U	0.92 U	NA
1,2-DICHLOROBENZENE	NA	NA	NA	0.65 U	1 U	NA
1,2-DICHLOROETHANE	NA	NA	NA	0.75 U	1.2 U	NA
1,2-DICHLOROPROPANE	NA	NA	NA	0.75 U	1.2 U	NA
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	0.8 U	1.3 U	NA
1,4-DICHLOROBENZENE	NA	NA	NA	0.58 U	0.92 U	NA
2-BUTANONE	NA	NA	NA	2.6 UJ	4.1 U	NA
2-HEXANONE	NA	NA	NA	3.1 U	4.9 U	NA
4-METHYL-2-PENTANONE	NA	NA	NA	1.8 U	2.8 U	NA
ACETONE	NA	NA	NA	4.4 UJ	7 U	NA
BENZENE	NA	NA	NA	0.71 J	110	NA
BROMODICHLOROMETHANE	NA	NA	NA	0.75 U	1.2 U	NA
BROMOFORM	NA	NA	NA	1.1 U	1.7 U	NA
BROMOMETHANE	NA	NA	NA	1.1 U	1.7 U	NA
CARBON DISULFIDE	NA	NA	NA	0.85 U	1.4 UJ	NA
CARBON TETRACHLORIDE	NA	NA	NA	0.88 U	1.4 U	NA
CHLOROBENZENE	NA	NA	NA	0.8 U	1.3 U	NA
CHLORODIBROMOMETHANE	NA	NA	NA	0.63 U	1 U	NA
CHLOROETHANE	NA	NA	NA	1 U	1.6 U	NA
CHLOROFORM	NA	NA	NA	0.78 U	1.2 U	NA
CHLOROMETHANE	NA	NA	NA	1.1 U	1.7 U	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	10	1.2 U	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	0.65 U	1 U	NA
CYCLOHEXANE	NA	NA	NA	1.1 U	32	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	1.3 U	2 U	NA
ETHYLBENZENE	NA	NA	NA	0.65 U	44	NA
ISOPROPYLBENZENE	NA	NA	NA	0.53 U	3.2 J	NA
METHYL ACETATE	NA	NA	NA	3.6 U	5.7 U	NA
METHYL CYCLOHEXANE	NA	NA	NA	1.1 U	13 J	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	0.68 U	1.1 U	NA
METHYLENE CHLORIDE	NA	NA	NA	1.3 U	2.1 U	NA
STYRENE	NA	NA	NA	0.58 U	0.92 U	NA
TETRACHLOROETHENE	NA	NA	NA	7.3	1.2 U	NA
TOLUENE	NA	NA	NA	0.58 U	7.9	NA
TOTAL XYLENES	NA	NA	NA	0.6 U	13	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	0.73 U	1.2 U	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	0.78 U	1.2 U	NA
TRICHLOROETHENE	NA	NA	NA	22	7.5	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	1.3 U	2 U	NA
VINYL CHLORIDE	NA	NA	NA	7.8	1.8 U	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW15A			MRC-MW16A	MRC-MW17A	MRC-MW18A
SAMPLE ID SAMPLE DATE	MRC-MW15A-040717 20170407	MRC-MW15A-040717- 20170407	MRC-MW15A-040717- 20170407	MRC-MW16A-060717 20170607	MRC-MW17A-040517 20170405	MRC-MW18A-040517 20170405
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	7.4	8.7	10	62	2.6	NA
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	0.74 J	NA	NA
ARSENIC	NA	NA	NA	0.87 J	NA	NA
BARIUM	NA	NA	NA	400	NA	NA
BERYLLIUM	NA	NA	NA	12	NA	NA
CADMIUM	NA	NA	NA	1.8	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	0.98 U	NA	NA
COBALT	NA	NA	NA	400	NA	NA
COPPER	NA	NA	NA	9.2 U	NA	NA
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	1.1	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	0.13 U	NA	NA
MOLYBDENUM	NA	NA	NA	1.1 U	NA	NA
NICKEL	NA	NA	NA	390	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	1.8 J	NA	NA
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	0.053 U	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	0.21 J	NA	NA
VANADIUM	NA	NA	NA	0.82 U	NA	NA
ZINC	NA	NA	NA	620	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW15A			MRC-MW16A	MRC-MW17A	MRC-MW18A
SAMPLE ID SAMPLE DATE	MRC-MW15A-040717 20170407	MRC-MW15A-040717- 20170407	MRC-MW15A-040717- 20170407	MRC-MW16A-060717 20170607	MRC-MW17A-040517 20170405	MRC-MW18A-040517 20170405
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	0.047 UJ	0.047 UJ	0.047 UJ

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW19A	MRC-MW21A	MRC-MW21B	MRC-MW22A	MRC-MW22B	MRC-MW24A
SAMPLE ID	MRC-MW19A-040317	MRC-MW21A-040317	MRC-MW21B-040317	MRC-MW22A-040317	MRC-MW22B-041417	MRC-MW24A-041717
SAMPLE DATE	20170403	20170403	20170403	20170403	20170414	20170417
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.23 U	0.23 U	2.9 U	0.23 U	0.23 U	NA
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.32 U	4 U	0.32 U	0.32 U	NA
1,1,2-TRICHLOROETHANE	0.34 U	0.34 U	4.3 U	0.34 U	0.34 U	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	5.1 U	0.41 U	0.41 U	NA
1,1-DICHLOROETHANE	2.5	1.2	17	0.25 U	1.3	NA
1,1-DICHLOROETHENE	0.27 U	0.5 J	160	0.27 U	3.7	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.27 U	0.27 U	3.4 U	0.27 U	0.27 U	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.47 U	5.9 U	0.47 U	0.47 U	NA
1,2-DIBROMOETHANE	0.23 U	0.23 U	2.9 U	0.23 U	0.23 U	NA
1,2-DICHLOROBENZENE	0.26 U	0.26 U	3.3 U	0.26 U	0.26 U	NA
1,2-DICHLOROETHANE	0.3 U	0.3 U	3.8 U	0.3 U	0.3 U	NA
1,2-DICHLOROPROPANE	0.3 U	0.3 U	3.8 U	0.3 U	0.3 U	NA
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.32 U	0.32 U	4 U	0.32 U	0.32 U	NA
1,4-DICHLOROBENZENE	0.23 U	0.23 U	2.9 U	0.23 U	0.23 U	NA
2-BUTANONE	1 U	1 U	13 U	1 U	1 U	NA
2-HEXANONE	1.2 U	1.2 U	15 U	1.2 U	1.2 U	NA
4-METHYL-2-PENTANONE	0.71 U	0.71 U	8.9 U	0.71 U	0.71 U	NA
ACETONE	1.8 U	2.6 J	22 U	1.8 U	1.8 U	NA
BENZENE	0.28 U	0.28 U	21	0.28 U	0.28 U	NA
BROMODICHLOROMETHANE	0.3 U	0.3 U	3.8 U	0.3 U	0.3 U	NA
BROMOFORM	0.43 U	0.43 U	5.4 U	0.43 U	0.43 U	NA
BROMOMETHANE	0.42 U	0.42 U	5.3 U	0.42 U	0.42 U	NA
CARBON DISULFIDE	0.34 U	0.34 U	4.3 U	0.34 U	0.34 U	NA
CARBON TETRACHLORIDE	0.35 U	0.35 U	4.4 U	0.35 U	0.35 U	NA
CHLOROBENZENE	0.32 U	0.32 U	4 U	0.32 U	0.32 U	NA
CHLORODIBROMOMETHANE	0.25 U	0.25 U	3.1 U	0.25 U	0.25 U	NA
CHLOROETHANE	0.41 U	0.41 U	5.1 U	0.41 U	0.41 U	NA
CHLOROFORM	0.6 J	0.31 U	3.9 U	0.31 U	0.31 U	NA
CHLOROMETHANE	0.43 U	0.43 U	5.4 U	0.43 U	0.43 U	NA
CIS-1,2-DICHLOROETHENE	0.3 U	0.3 U	6.1 J	0.3 U	0.3 U	NA
CIS-1,3-DICHLOROPROPENE	0.26 U	0.26 U	3.3 U	0.26 U	0.26 U	NA
CYCLOHEXANE	0.44 U	0.44 U	5.5 U	0.44 U	0.44 U	NA
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	6.3 U	0.5 U	0.5 U	NA
ETHYLBENZENE	0.26 U	0.26 U	3.3 U	0.26 U	0.26 U	NA
ISOPROPYLBENZENE	0.21 U	0.21 U	12 J	0.21 U	0.21 U	NA
METHYL ACETATE	1.4 U	1.4 U	18 U	1.4 U	1.4 U	NA
METHYL CYCLOHEXANE	0.45 U	0.45 U	5.6 U	0.45 U	0.45 U	NA
METHYL TERT-BUTYL ETHER	0.27 U	0.27 U	3.4 U	0.27 U	0.27 U	NA
METHYLENE CHLORIDE	0.53 U	0.53 U	6.6 U	0.53 U	0.53 U	NA
STYRENE	0.23 U	0.23 U	2.9 U	0.23 U	0.23 U	NA
TETRACHLOROETHENE	0.3 U	0.3 U	8.5 J	0.3 U	0.31 J	NA
TOLUENE	0.23 U	0.23 U	2.9 U	0.23 U	0.23 U	NA
TOTAL XYLENES	0.24 U	0.24 U	3 U	0.24 U	0.24 U	NA
TRANS-1,2-DICHLOROETHENE	0.29 U	0.29 U	3.6 U	0.29 U	0.29 U	NA
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.31 U	3.9 U	0.31 U	0.31 U	NA
TRICHLOROETHENE	0.33 U	0.76 J	570	0.94 J	2	NA
TRICHLOROFLUOROMETHANE	1.2	0.5 U	6.3 U	0.5 U	0.5 U	NA
VINYL CHLORIDE	0.45 U	0.45 U	5.6 U	0.45 U	0.45 U	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW19A	MRC-MW21A	MRC-MW21B	MRC-MW22A	MRC-MW22B	MRC-MW24A
SAMPLE ID	MRC-MW19A-040317	MRC-MW21A-040317	MRC-MW21B-040317	MRC-MW22A-040317	MRC-MW22B-041417	MRC-MW24A-041717
SAMPLE DATE	20170403	20170403	20170403	20170403	20170414	20170417
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	0.14 U	NA	NA	0.33 J
ETHENE	NA	NA	0.33 J	NA	NA	0.13 U
METHANE	NA	NA	12	NA	NA	120
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	6.9	0.43	40	0.82	8.5	NA
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	8000	NA	NA	18000
CHROMIUM	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
IRON	NA	NA	35000 J	NA	NA	65 J
LEAD	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	7300	NA	NA	37000
MANGANESE	NA	NA	3400	NA	NA	32000
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	2800 J	NA	NA	3000 J
SELENIUM	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	NA	NA	15000 J	NA	NA	13000
SILVER	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	16000	NA	NA	210000
THALLIUM	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW19A	MRC-MW21A	MRC-MW21B	MRC-MW22A	MRC-MW22B	MRC-MW24A
SAMPLE ID	MRC-MW19A-040317	MRC-MW21A-040317	MRC-MW21B-040317	MRC-MW22A-040317	MRC-MW22B-041417	MRC-MW24A-041717
SAMPLE DATE	20170403	20170403	20170403	20170403	20170414	20170417
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	34	NA	NA	1.9 U
AMMONIA	NA	NA	0.87 U	NA	NA	0.87 U
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	79	NA	NA	550
DISSOLVED ORGANIC CARBON	NA	NA	0.42 U	NA	NA	0.69 J
NITRATE-N	NA	NA	0.035 U	NA	NA	0.18 U
NITRITE-N	NA	NA	0.038 U	NA	NA	0.19 U
ORTHOPHOSPHATE-P	NA	NA	0.023 J	NA	NA	0.035 J
SULFATE	NA	NA	2.7	NA	NA	0.65 U
TOTAL DISSOLVED SOLIDS	NA	NA	190	NA	NA	980
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW25A	MRC-MW27A	MRC-MW27B	MRC-MW27C		MRC-MW27C
SAMPLE ID	MRC-MW25A-042117	MRC-MW27A-041717	MRC-MW27B-041717	MRC-MW27C-041717	MRC-MW27C-041717-	MRC-MW27C-041717-
SAMPLE DATE	20170421	20170417	20170417	20170417	20170417	20170417
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	1.2 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	1.6 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROETHANE	1.7 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	2.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	1.3 U	1.8	2	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	1.4 U	1.8	2.9	0.27 U	0.27 U	0.27 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	1.4 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	2.4 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	1.2 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	1.3 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	1.6 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	1.2 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	5.1 U	1 U	1 U	1 U	1 U	1 U
2-HEXANONE	6.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
4-METHYL-2-PENTANONE	3.6 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	8.8 U	5.5 J	2.3 J	1.8 U	1.4	1.9 J
BENZENE	1.4 U	1.2	0.28 U	0.28 U	0.28 U	0.28 U
BROMODICHLOROMETHANE	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	2.2 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	2.1 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	1.7 U	0.34 UJ	0.34 UJ	0.34 UJ	0.34 U	0.34 UJ
CARBON TETRACHLORIDE	1.8 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	1.6 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	1.3 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROETHANE	2.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CHLOROFORM	1.6 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
CHLOROMETHANE	2.2 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	7.2	40	86	0.35 J	0.25	0.3 U
CIS-1,3-DICHLOROPROPENE	1.3 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CYCLOHEXANE	2.2 U	0.72 J	0.44 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	2.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
ETHYLBENZENE	1.3 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	1.1 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
METHYL ACETATE	7.2 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
METHYL CYCLOHEXANE	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	1.4 U	14	1.2	0.27 U	0.27 U	0.27 U
METHYLENE CHLORIDE	2.7 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	1.2 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	1.5 U	0.63 J	0.57 J	0.3 U	0.3 U	0.3 U
TOLUENE	1.2 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	1.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	1.5 U	2.7	1	0.29 U	0.29 U	0.29 U
TRANS-1,3-DICHLOROPROPENE	1.6 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	170	160	300	0.33 U	0.42	0.67 J
TRICHLOROFLUOROMETHANE	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	2.3 U	18	2.2	0.45 U	0.45 U	0.45 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW25A	MRC-MW27A	MRC-MW27B	MRC-MW27C		MRC-MW27C
SAMPLE ID	MRC-MW25A-042117	MRC-MW27A-041717	MRC-MW27B-041717	MRC-MW27C-041717	MRC-MW27C-041717-	MRC-MW27C-041717-
SAMPLE DATE	20170421	20170417	20170417	20170417	20170417	20170417
VOLATILE GASES (UG/L)						
ETHANE	0.14 U	4.7	0.14 U	NA	NA	NA
ETHENE	0.13 U	1.8	0.13 U	NA	NA	NA
METHANE	12	750	0.44 J	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	4.5	0.78	1.3	0.057 U	0.057 U	NA
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CALCIUM	15000	20000	15000	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
IRON	25000	130000	1000	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
MAGNESIUM	7400	37000	2600 J	NA	NA	NA
MANGANESE	3900	43000	100	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
POTASSIUM	2400 J	3400 J	5400	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	11000	12000	12000	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
SODIUM	83000	350000	110000	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW25A	MRC-MW27A	MRC-MW27B	MRC-MW27C		MRC-MW27C
SAMPLE ID	MRC-MW25A-042117	MRC-MW27A-041717	MRC-MW27B-041717	MRC-MW27C-041717	MRC-MW27C-041717-	MRC-MW27C-041717-
SAMPLE DATE	20170421	20170417	20170417	20170417	20170417	20170417
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	26	36	24	NA	NA	NA
AMMONIA	0.87 U	2.5	0.87 U	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	170	880	190	NA	NA	NA
DISSOLVED ORGANIC CARBON	1	1.5	2.7	NA	NA	NA
NITRATE-N	0.035 U	0.35 U	0.7 U	NA	NA	NA
NITRITE-N	0.038 U	0.38 U	0.76 U	NA	NA	NA
ORTHOPHOSPHATE-P	0.05 U	0.043 J	0.031 J	NA	NA	NA
SULFATE	3.9	1.9 J	14 J	NA	NA	NA
TOTAL DISSOLVED SOLIDS	370	1600	380	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW29A	MRC-MW32A	MRC-MW33A	MRC-MW34A		
SAMPLE ID	MRC-MW29A-040717	MRC-MW32A-031017	MRC-MW33A-031017	MRC-MW34A-031017	MRC-MW34A-031017-	MRC-MW34A-031017-
SAMPLE DATE	20170407	20170310	20170310	20170310	20170310	20170310
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROETHANE	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 UJ	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	3.7	0.25 U	0.27 J	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	1.8	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	1 U	1 UJ	1 UJ	1 UJ	1 U	1 UJ
2-HEXANONE	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
4-METHYL-2-PENTANONE	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
BENZENE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
BROMODICHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	0.42 U	0.42 UJ	0.42 UJ	0.42 UJ	0.42 U	0.42 UJ
CARBON DISULFIDE	0.34 UJ	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROETHANE	0.41 U	0.41 UJ	0.41 UJ	0.41 UJ	0.41 U	0.41 UJ
CHLOROFORM	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
CHLOROMETHANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	3.7	0.3 U	2.8	0.3 U	0.3 U	0.3 U
CIS-1,3-DICHLOROPROPENE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CYCLOHEXANE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
ETHYLBENZENE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
METHYL ACETATE	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
METHYL CYCLOHEXANE	0.45 UJ	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	4.4	0.27 U	4.5	0.27 U	0.27 U	0.27 U
METHYLENE CHLORIDE	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	11	0.33 U	2.5	17	17	17
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.56 J	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW29A	MRC-MW32A	MRC-MW33A	MRC-MW34A		
SAMPLE ID	MRC-MW29A-040717	MRC-MW32A-031017	MRC-MW33A-031017	MRC-MW34A-031017	MRC-MW34A-031017-	MRC-MW34A-031017-
SAMPLE DATE	20170407	20170310	20170310	20170310	20170310	20170310
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	NA	NA	0.17 J	0.057 U	0.057 U	0.057 U
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW29A	MRC-MW32A	MRC-MW33A	MRC-MW34A		
SAMPLE ID	MRC-MW29A-040717	MRC-MW32A-031017	MRC-MW33A-031017	MRC-MW34A-031017	MRC-MW34A-031017-	MRC-MW34A-031017-
SAMPLE DATE	20170407	20170310	20170310	20170310	20170310	20170310
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW34B	MRC-MW34C	MRC-MW37A	MRC-MW37B	MRC-MW37C	MRC-MW38A
SAMPLE ID	MRC-MW34B-031517	MRC-MW34C-031517	MRC-MW37A-032917	MRC-MW37B-032917	MRC-MW37C-032717	MRC-MW38A-033117
SAMPLE DATE	20170315	20170315	20170329	20170329	20170327	20170331
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.23 U	0.23 U	0.23 U	0.29 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.32 U	0.32 U	0.4 U	0.32 U	0.32 U
1,1,2-TRICHLOROETHANE	0.34 U	0.34 U	0.34 U	0.43 U	0.34 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.51 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.68 J	0.25 U	0.25 U	0.31 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	0.27 U	0.27 U	0.27 U	0.34 U	0.27 U	0.27 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.27 U	0.27 U	0.27 UJ	0.34 UJ	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	0.24 U	0.24 U	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.59 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	0.23 U	0.23 U	0.23 U	0.29 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.33 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.38 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	0.3 U	0.3 U	0.3 U	0.38 U	0.3 U	0.3 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.4 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	0.23 U	0.23 U	0.23 U	0.29 U	0.23 U	0.23 U
2-BUTANONE	1 U	1 U	1 U	1.3 U	1 UJ	1 U
2-HEXANONE	1.2 U	1.2 U	1.2 U	1.5 U	1.2 U	1.2 U
4-METHYL-2-PENTANONE	0.71 U	0.71 U	0.71 U	0.89 U	0.71 U	0.71 U
ACETONE	1.8 U	1.8 U	1.8 U	2.2 U	1.8 U	1.8 U
BENZENE	0.28 U	0.28 U	0.28 U	0.35 U	0.28 U	0.28 U
BROMODICHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.38 U	0.3 U	0.3 U
BROMOFORM	0.43 U	0.43 U	0.43 U	0.54 U	0.43 U	0.43 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.53 U	0.42 U	0.42 U
CARBON DISULFIDE	0.34 U	0.34 U	0.34 U	0.43 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	3.9	0.35 U	0.35 U	0.44 U	0.35 U	0.35 U
CHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.4 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	0.25 U	0.25 U	0.25 U	0.31 U	0.25 U	0.25 U
CHLOROETHANE	0.41 U	0.41 U	0.41 U	0.51 U	0.41 U	0.41 U
CHLOROFORM	1.4	0.31 U	0.31 U	0.39 U	0.31 U	5.9
CHLOROMETHANE	0.43 U	0.43 U	0.43 UJ	0.54 UJ	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	13	0.3 U	0.3 U	9	0.3 U	0.3 U
CIS-1,3-DICHLOROPROPENE	0.26 U	0.26 U	0.26 U	0.33 U	0.26 U	0.26 U
CYCLOHEXANE	0.44 U	0.44 U	0.44 U	0.55 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.63 U	0.5 UJ	0.5 U
ETHYLBENZENE	0.26 U	0.26 U	0.26 U	0.33 U	0.26 U	0.26 U
ISOPROPYLBENZENE	0.21 U	0.21 U	0.21 U	0.26 U	0.21 U	0.21 U
METHYL ACETATE	1.4 U	1.4 U	1.4 U	1.8 U	1.4 U	1.4 U
METHYL CYCLOHEXANE	0.45 U	0.45 U	0.45 U	0.56 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	23	0.27 U	0.27 U	0.34 U	0.27 U	0.27 U
METHYLENE CHLORIDE	0.53 U	0.53 U	0.53 U	2.3 U	0.53 U	0.53 U
STYRENE	0.23 U	0.23 U	0.23 U	0.29 U	0.23 U	0.23 U
TETRACHLOROETHENE	0.3 U	0.3 U	0.3 U	0.38 U	0.3 U	0.3 U
TOLUENE	0.23 U	0.23 U	0.23 U	0.29 U	0.23 U	0.23 U
TOTAL XYLENES	0.24 U	0.24 U	0.24 U	0.3 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	0.8 J	0.29 U	0.29 U	0.36 U	0.29 U	0.29 U
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.31 U	0.31 U	0.39 U	0.31 U	0.31 U
TRICHLOROETHENE	14	0.33 U	4.5	64	0.33 U	0.33 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.63 U	0.5 U	0.5 U
VINYL CHLORIDE	1.5	0.45 U	0.45 U	0.56 U	0.45 U	0.45 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW34B	MRC-MW34C	MRC-MW37A	MRC-MW37B	MRC-MW37C	MRC-MW38A
SAMPLE ID	MRC-MW34B-031517	MRC-MW34C-031517	MRC-MW37A-032917	MRC-MW37B-032917	MRC-MW37C-032717	MRC-MW38A-033117
SAMPLE DATE	20170315	20170315	20170329	20170329	20170327	20170331
VOLATILE GASES (UG/L)						
ETHANE	0.14 U	NA	0.14 U	0.14 U	NA	NA
ETHENE	0.13 U	NA	0.13 U	0.13 U	NA	NA
METHANE	24	NA	0.08 U	0.08 J	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	0.45	0.057 U	0.057 U	0.18 J	0.057 U	NA
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	0.07 U	0.071 U	0.14 U	NA
DICHLOROBIPHENYLS	NA	NA	0.0054 U	0.0055 U	0.011 U	NA
HEPTACHLOROBIPHENYLS	NA	NA	0.03 U	0.03 U	0.06 U	NA
HEXACHLOROBIPHENYLS	NA	NA	0.015 U	0.015 U	0.03 U	NA
MONOCHLOROBIPHENYLS	NA	NA	0.0056 U	0.0057 U	0.011 U	NA
NONACHLOROBIPHENYLS	NA	NA	0.049 UJ	0.049 UJ	0.098 U	NA
OCTACHLOROBIPHENYLS	NA	NA	0.038 U	0.038 U	0.076 U	NA
PENTACHLOROBIPHENYLS	NA	NA	0.014 U	0.014 U	0.028 U	NA
TETRACHLOROBIPHENYLS	NA	NA	0.013 U	0.013 U	0.026 U	NA
TRICHLOROBIPHENYLS	NA	NA	0.0065 U	0.0066 U	0.013 U	NA
TOTAL HOMOLOGS	NA	NA	0	0	0	NA
METALS (UG/L)						
ANTIMONY	NA	NA	2.8	NA	NA	NA
ARSENIC	NA	NA	2.1 J	NA	NA	NA
BARIUM	NA	NA	40	NA	NA	NA
BERYLLIUM	NA	NA	0.4 U	NA	NA	NA
CADMIUM	NA	NA	0.33 U	NA	NA	NA
CALCIUM	16000	NA	120000	7800	NA	NA
CHROMIUM	NA	NA	1.8 U	NA	NA	NA
COBALT	NA	NA	2.1	NA	NA	NA
COPPER	NA	NA	2.4	NA	NA	NA
IRON	NA	NA	690 J	330 J	NA	NA
LEAD	NA	NA	1.1	NA	NA	NA
MAGNESIUM	13000	NA	24000	3900 J	NA	NA
MANGANESE	NA	NA	15	100	NA	NA
MERCURY	NA	NA	0.13 U	NA	NA	NA
MOLYBDENUM	NA	NA	0.89 U	NA	NA	NA
NICKEL	NA	NA	2.3	NA	NA	NA
POTASSIUM	7500	NA	7300 J	2600 U	NA	NA
SELENIUM	NA	NA	5.6	NA	NA	NA
SILICON DIOXIDE	9300	NA	3800 J	3600 J	NA	NA
SILVER	NA	NA	0.033 U	NA	NA	NA
SODIUM	83000	NA	15000	14000	NA	NA
THALLIUM	NA	NA	0.28 U	NA	NA	NA
VANADIUM	NA	NA	2 J	NA	NA	NA
ZINC	NA	NA	13 U	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW34B	MRC-MW34C	MRC-MW37A	MRC-MW37B	MRC-MW37C	MRC-MW38A
SAMPLE ID	MRC-MW34B-031517	MRC-MW34C-031517	MRC-MW37A-032917	MRC-MW37B-032917	MRC-MW37C-032717	MRC-MW38A-033117
SAMPLE DATE	20170315	20170315	20170329	20170329	20170327	20170331
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	1.9 U	NA	84	6.4	NA	NA
AMMONIA	NA	NA	0.87 U	0.87 U	NA	NA
AMMONIA-N	0.87 U	NA	NA	NA	NA	NA
CHLORIDE	200	NA	13	25	NA	NA
DISSOLVED ORGANIC CARBON	1.2	NA	3.3	0.86 J	NA	NA
NITRATE-N	0.14	NA	2.5	1.2	NA	NA
NITRITE-N	0.038 U	NA	0.038 U	0.038 U	NA	NA
ORTHOPHOSPHATE-P	0.03 J	NA	0.014 J	0.047 J	NA	NA
SULFATE	18	NA	360	26	NA	NA
TOTAL DISSOLVED SOLIDS	360	NA	640	110	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW38B	MRC-MW41A	MRC-MW43A	MRC-MW44A	MRC-MW48A	MRC-MW50A
SAMPLE ID	MRC-MW38B-033117	MRC-MW41A-041117	MRC-MW43A-031517	MRC-MW44A-030817	MRC-MW48A-041917	MRC-MW50A-040417
SAMPLE DATE	20170331	20170411	20170315	20170308	20170419	20170404
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.23 U	0.23 U	NA	NA	12 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.32 U	NA	NA	16 U	0.32 U
1,1,2-TRICHLOROETHANE	0.34 U	0.34 U	NA	NA	17 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 UJ	NA	NA	21 U	0.41 U
1,1-DICHLOROETHANE	0.25 U	0.25 U	NA	NA	13 U	0.25 U
1,1-DICHLOROETHENE	0.27 U	0.27 U	NA	NA	23 J	0.27 U
1,2,3-TRICHLOROBENZENE	NA	NA	1300	0.35 U	NA	NA
1,2,4-TRICHLOROBENZENE	0.27 U	0.27 U	5300	0.27 U	14 U	0.27 UJ
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.47 U	NA	NA	24 U	0.47 U
1,2-DIBROMOETHANE	0.23 U	0.23 U	NA	NA	12 U	0.23 U
1,2-DICHLOROBENZENE	0.26 U	0.26 U	310	0.26 U	13 U	0.26 U
1,2-DICHLOROETHANE	0.3 U	0.3 U	NA	NA	15 U	0.3 U
1,2-DICHLOROPROPANE	0.3 U	0.3 U	NA	NA	15 U	0.3 U
1,3,5-TRICHLOROBENZENE	NA	NA	83 U	0.33 U	NA	NA
1,3-DICHLOROBENZENE	0.32 U	0.32 U	80 U	0.32 U	16 U	0.32 U
1,4-DICHLOROBENZENE	0.23 U	0.23 U	350	0.23 U	12 U	0.23 U
2-BUTANONE	1 U	1 U	NA	NA	51 U	1 U
2-HEXANONE	1.2 U	1.2 U	NA	NA	62 U	1.2 U
4-METHYL-2-PENTANONE	0.71 U	0.71 U	NA	NA	36 U	0.71 U
ACETONE	1.8 U	1.8 U	NA	NA	88 U	1.8 U
BENZENE	0.28 U	0.28 U	NA	NA	14 U	0.28 U
BROMODICHLOROMETHANE	0.3 U	0.3 U	NA	NA	15 U	0.3 U
BROMOFORM	0.43 U	0.43 U	NA	NA	22 U	0.43 U
BROMOMETHANE	0.42 U	0.42 U	NA	NA	21 U	0.42 U
CARBON DISULFIDE	0.34 U	0.34 UJ	NA	NA	17 U	0.34 U
CARBON TETRACHLORIDE	0.35 U	0.35 U	NA	NA	18 U	0.35 U
CHLOROBENZENE	0.32 U	0.32 U	80 U	0.32 U	16 U	0.32 U
CHLORODIBROMOMETHANE	0.25 U	0.25 U	NA	NA	13 U	0.25 U
CHLOROETHANE	0.41 U	0.41 U	NA	NA	21 U	0.41 U
CHLOROFORM	0.31 U	0.31 U	NA	NA	16 U	0.31 U
CHLOROMETHANE	0.43 U	0.43 U	NA	NA	22 U	0.43 U
CIS-1,2-DICHLOROETHENE	0.3 U	0.3 U	NA	NA	2000	0.3 U
CIS-1,3-DICHLOROPROPENE	0.26 U	0.26 U	NA	NA	13 U	0.26 U
CYCLOHEXANE	0.44 U	0.44 U	NA	NA	22 U	0.44 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	NA	NA	25 U	0.5 UJ
ETHYLBENZENE	0.26 U	0.26 U	NA	NA	13 U	0.26 U
ISOPROPYLBENZENE	0.21 U	0.21 U	NA	NA	11 U	0.21 U
METHYL ACETATE	1.4 U	1.4 U	NA	NA	72 U	1.4 U
METHYL CYCLOHEXANE	0.45 U	0.45 U	NA	NA	23 U	0.45 U
METHYL TERT-BUTYL ETHER	0.27 U	0.27 U	NA	NA	14 U	0.27 U
METHYLENE CHLORIDE	0.53 U	0.53 U	NA	NA	27 U	0.53 U
STYRENE	0.23 U	0.23 U	NA	NA	12 U	0.23 U
TETRACHLOROETHENE	0.3 U	0.3 U	NA	NA	15 U	0.3 U
TOLUENE	0.23 U	0.23 U	NA	NA	12 U	0.23 U
TOTAL XYLENES	0.24 U	0.24 U	NA	NA	12 U	0.24 U
TRANS-1,2-DICHLOROETHENE	0.29 U	0.29 U	NA	NA	19 J	0.29 U
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.31 U	NA	NA	16 U	0.31 U
TRICHLOROETHENE	0.33 U	0.33 U	NA	NA	880	7.6
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	NA	NA	25 U	0.5 U
VINYL CHLORIDE	0.45 U	0.45 U	NA	NA	200	0.45 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW38B	MRC-MW41A	MRC-MW43A	MRC-MW44A	MRC-MW48A	MRC-MW50A
SAMPLE ID	MRC-MW38B-033117	MRC-MW41A-041117	MRC-MW43A-031517	MRC-MW44A-030817	MRC-MW48A-041917	MRC-MW50A-040417
SAMPLE DATE	20170331	20170411	20170315	20170308	20170419	20170404
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	7.5	NA
ETHENE	NA	NA	NA	NA	48	NA
METHANE	NA	NA	NA	NA	4300	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	NA	0.45	NA	4.7	6	NA
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	0.07 U	0.069 U	NA	NA
DICHLOROBIPHENYLS	NA	NA	0.061 J	0.0053 U	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	0.03 U	0.03 U	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	0.023 J	0.015 U	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	0.26	0.0055 U	NA	NA
NONACHLOROBIPHENYLS	NA	NA	0.049 U	0.048 U	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	0.038 U	0.037 U	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	0.2	0.014 U	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	0.05 J	0.013 U	NA	NA
TRICHLOROBIPHENYLS	NA	NA	0.007 J	0.0064 U	NA	NA
TOTAL HOMOLOGS	NA	NA	0.601	0	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	0.43 U	NA
ARSENIC	NA	NA	NA	NA	2.9 J	NA
BARIUM	NA	NA	NA	NA	150	NA
BERYLLIUM	NA	NA	NA	NA	2.3	NA
CADMIUM	NA	NA	NA	NA	0.31 U	NA
CALCIUM	NA	NA	NA	NA	1800 J	NA
CHROMIUM	NA	NA	NA	NA	0.38 J	NA
COBALT	NA	NA	NA	NA	130	NA
COPPER	NA	NA	NA	NA	0.43 U	NA
IRON	NA	NA	NA	NA	84000	NA
LEAD	NA	NA	NA	NA	0.41 U	NA
MAGNESIUM	NA	NA	NA	NA	14000	NA
MANGANESE	NA	NA	NA	NA	11000	NA
MERCURY	NA	NA	NA	NA	0.13 UJ	NA
MOLYBDENUM	NA	NA	NA	NA	0.51 U	NA
NICKEL	NA	NA	NA	NA	34	NA
POTASSIUM	NA	NA	NA	NA	330 J	NA
SELENIUM	NA	NA	NA	NA	1.3 J	NA
SILICON DIOXIDE	NA	NA	NA	NA	15000	NA
SILVER	NA	NA	NA	NA	0.03 U	NA
SODIUM	NA	NA	NA	NA	51000	NA
THALLIUM	NA	NA	NA	NA	0.28 U	NA
VANADIUM	NA	NA	NA	NA	0.54 U	NA
ZINC	NA	NA	NA	NA	6.2 U	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW38B	MRC-MW41A	MRC-MW43A	MRC-MW44A	MRC-MW48A	MRC-MW50A
SAMPLE ID	MRC-MW38B-033117	MRC-MW41A-041117	MRC-MW43A-031517	MRC-MW44A-030817	MRC-MW48A-041917	MRC-MW50A-040417
SAMPLE DATE	20170331	20170411	20170315	20170308	20170419	20170404
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	79	NA
AMMONIA	NA	NA	NA	NA	0.87 U	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	120	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	7.5	NA
NITRATE-N	NA	NA	NA	NA	0.31	NA
NITRITE-N	NA	NA	NA	NA	0.038 U	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	0.035 J	NA
SULFATE	NA	NA	NA	NA	6.6	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	340	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW53A	MRC-MW53B	MRC-MW53B		MRC-MW57A	MRC-MW58A
SAMPLE ID	MRC-MW53A-031617	MRC-MW53B-031617	MRC-MW53B-031617-	MRC-MW53B-031617-	MRC-MW57A-031717	MRC-MW58A-030907
SAMPLE DATE	20170316	20170316	20170316	20170316	20170317	20170309
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.46 UJ	0.23 UJ	0.23 U	0.23 UJ	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	0.64 U	0.32 UJ	0.32 U	0.32 UJ	0.32 U	0.32 U
1,1,2-TRICHLOROETHANE	0.68 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	2	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.54 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.94 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.64 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	2 U	1 U	1 U	1 U	1 U	1 U
2-HEXANONE	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
4-METHYL-2-PENTANONE	1.4 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	3.5 U	5.4 J	5.5	5.6 J	1.8 U	1.8 U
BENZENE	0.56 U	17	17	17	0.28 U	0.28 U
BROMODICHLOROMETHANE	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	0.86 UJ	0.43 UJ	0.43 U	0.43 UJ	0.43 U	0.43 UJ
BROMOMETHANE	0.84 UJ	0.42 U	0.42 U	0.42 U	0.42 U	0.42 UJ
CARBON DISULFIDE	0.68 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	0.7 UJ	0.35 UJ	0.35 U	0.35 UJ	0.35 U	0.35 U
CHLOROBENZENE	0.64 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	0.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROETHANE	0.82 UJ	0.41 UJ	0.41 U	0.41 UJ	0.41 U	0.41 U
CHLOROFORM	0.62 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
CHLOROMETHANE	0.86 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	3.3	1.5	1.5	1.5	0.3 U	0.3 U
CIS-1,3-DICHLOROPROPENE	0.52 U	0.26 UJ	0.26 U	0.26 UJ	0.26 U	0.26 U
CYCLOHEXANE	0.88 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	1 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U
ETHYLBENZENE	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	0.42 UJ	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
METHYL ACETATE	2.9 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
METHYL CYCLOHEXANE	0.9 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	0.54 U	1.3	1.3	1.3	0.27 U	0.27 U
METHYLENE CHLORIDE	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	0.6 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	0.48 U	1.1 J	1.2	1.2 J	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	0.58 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TRANS-1,3-DICHLOROPROPENE	0.62 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	41	12	12	11	0.33 U	0.33 U
TRICHLOROFLUOROMETHANE	1 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U
VINYL CHLORIDE	0.9 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW53A	MRC-MW53B	MRC-MW53B	MRC-MW53B	MRC-MW57A	MRC-MW58A
SAMPLE ID	MRC-MW53A-031617	MRC-MW53B-031617	MRC-MW53B-031617-	MRC-MW53B-031617-	MRC-MW57A-031717	MRC-MW58A-030907
SAMPLE DATE	20170316	20170316	20170316	20170316	20170317	20170309
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	3.6	0.51	0.51	NA	NA	0.37
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW53A	MRC-MW53B	MRC-MW53B		MRC-MW57A	MRC-MW58A
SAMPLE ID	MRC-MW53A-031617	MRC-MW53B-031617	MRC-MW53B-031617-	MRC-MW53B-031617-	MRC-MW57A-031717	MRC-MW58A-030907
SAMPLE DATE	20170316	20170316	20170316	20170316	20170317	20170309
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW60A	MRC-MW60B	MRC-MW62A	MRC-MW62C	MRC-MW63A	MRC-MW64A
SAMPLE ID	MRC-MW60A-031317	MRC-MW60B-031317	MRC-MW62A-031517	MRC-MW62C-031517	MRC-MW63A-041217	MRC-MW64A-040517
SAMPLE DATE	20170313	20170313	20170315	20170315	20170412	20170405
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	12 U	46 U	NA	NA	0.23 U	NA
1,1,2,2-TETRACHLOROETHANE	16 U	64 U	NA	NA	0.32 U	NA
1,1,2-TRICHLOROETHANE	17 U	68 U	NA	NA	0.34 U	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	21 U	82 U	NA	NA	0.41 UJ	NA
1,1-DICHLOROETHANE	13 U	50 U	NA	NA	3.4	NA
1,1-DICHLOROETHENE	14 U	54 U	NA	NA	1.9	NA
1,2,3-TRICHLOROBENZENE	NA	NA	1.4	0.35 U	NA	NA
1,2,4-TRICHLOROBENZENE	14 U	54 U	6	0.58 J	0.27 U	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	24 U	94 U	NA	NA	0.47 U	NA
1,2-DIBROMOETHANE	12 U	46 U	NA	NA	0.23 U	NA
1,2-DICHLOROBENZENE	13 U	52 U	0.58 J	0.26 U	0.26 U	NA
1,2-DICHLOROETHANE	15 U	60 U	NA	NA	0.3 U	NA
1,2-DICHLOROPROPANE	15 U	60 U	NA	NA	0.3 U	NA
1,3,5-TRICHLOROBENZENE	NA	NA	0.33 U	0.33 U	NA	NA
1,3-DICHLOROBENZENE	16 U	64 U	0.32 U	0.32 U	0.32 U	NA
1,4-DICHLOROBENZENE	12 U	46 U	0.94 J	0.23 U	0.23 U	NA
2-BUTANONE	51 U	200 U	NA	NA	1 U	NA
2-HEXANONE	62 UJ	250 UJ	NA	NA	1.2 U	NA
4-METHYL-2-PENTANONE	36 U	140 U	NA	NA	0.71 U	NA
ACETONE	88 U	350 U	NA	NA	1.8 U	NA
BENZENE	14 U	56 U	NA	NA	0.28 U	NA
BROMODICHLOROMETHANE	15 U	60 U	NA	NA	0.3 U	NA
BROMOFORM	22 U	86 U	NA	NA	0.43 U	NA
BROMOMETHANE	21 U	84 U	NA	NA	0.42 U	NA
CARBON DISULFIDE	17 U	68 U	NA	NA	0.34 UJ	NA
CARBON TETRACHLORIDE	18 U	70 U	NA	NA	0.35 U	NA
CHLOROBENZENE	16 U	64 U	0.5 J	0.32 U	0.32 U	NA
CHLORODIBROMOMETHANE	13 U	50 U	NA	NA	0.25 U	NA
CHLOROETHANE	21 U	82 U	NA	NA	0.41 U	NA
CHLOROFORM	16 U	62 U	NA	NA	0.31 U	NA
CHLOROMETHANE	22 U	86 U	NA	NA	0.43 U	NA
CIS-1,2-DICHLOROETHENE	520	220	NA	NA	4.8	NA
CIS-1,3-DICHLOROPROPENE	13 U	52 U	NA	NA	0.26 U	NA
CYCLOHEXANE	22 U	88 U	NA	NA	0.44 U	NA
DICHLORODIFLUOROMETHANE	25 U	100 U	NA	NA	0.5 U	NA
ETHYLBENZENE	13 U	52 U	NA	NA	0.26 U	NA
ISOPROPYLBENZENE	11 U	42 U	NA	NA	0.21 U	NA
METHYL ACETATE	72 U	290 U	NA	NA	1.4 U	NA
METHYL CYCLOHEXANE	23 UJ	90 UJ	NA	NA	0.45 U	NA
METHYL TERT-BUTYL ETHER	14 U	54 U	NA	NA	0.27 U	NA
METHYLENE CHLORIDE	72 U	290 U	NA	NA	0.53 U	NA
STYRENE	12 U	46 U	NA	NA	0.23 U	NA
TETRACHLOROETHENE	15 U	60 U	NA	NA	0.3 U	NA
TOLUENE	12 U	46 U	NA	NA	0.23 U	NA
TOTAL XYLENES	12 U	48 U	NA	NA	0.24 U	NA
TRANS-1,2-DICHLOROETHENE	15 U	58 U	NA	NA	0.29 U	NA
TRANS-1,3-DICHLOROPROPENE	16 U	62 U	NA	NA	0.31 U	NA
TRICHLOROETHENE	1300	7100	NA	NA	3.8	NA
TRICHLOROFLUOROMETHANE	25 U	100 U	NA	NA	0.5 U	NA
VINYL CHLORIDE	69	90 U	NA	NA	0.87 J	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW60A	MRC-MW60B	MRC-MW62A	MRC-MW62C	MRC-MW63A	MRC-MW64A
SAMPLE ID	MRC-MW60A-031317	MRC-MW60B-031317	MRC-MW62A-031517	MRC-MW62C-031517	MRC-MW63A-041217	MRC-MW64A-040517
SAMPLE DATE	20170313	20170313	20170315	20170315	20170412	20170405
VOLATILE GASES (UG/L)						
ETHANE	NA	0.14 U	NA	NA	NA	NA
ETHENE	NA	0.13 U	NA	NA	NA	NA
METHANE	NA	67	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	2.4	0.86	NA	NA	6.2	NA
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	0.069 U	0.069 U	NA	NA
DICHLOROBIPHENYLS	NA	NA	0.0053 U	0.0053 U	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	0.03 U	0.03 U	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	0.015 U	0.015 U	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	0.0055 U	0.0055 U	NA	NA
NONACHLOROBIPHENYLS	NA	NA	0.048 U	0.048 U	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	0.037 U	0.038 U	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	0.014 U	0.014 U	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	0.013 U	0.013 U	NA	NA
TRICHLOROBIPHENYLS	NA	NA	0.0064 U	0.0064 U	NA	NA
TOTAL HOMOLOGS	NA	NA	0	0	NA	NA
METALS (UG/L)						
ANTIMONY	2.2	0.59 U	NA	NA	NA	NA
ARSENIC	1.5 J	0.49 J	NA	NA	NA	NA
BARIUM	59	61	NA	NA	NA	NA
BERYLLIUM	2.4	0.44 J	NA	NA	NA	NA
CADMIUM	0.31 U	0.31 U	NA	NA	NA	NA
CALCIUM	NA	3400 J	NA	NA	NA	NA
CHROMIUM	0.43 J	0.29 J	NA	NA	NA	NA
COBALT	73	41	NA	NA	NA	NA
COPPER	0.38 U	0.36 U	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA
LEAD	0.55 U	0.37 U	NA	NA	NA	NA
MAGNESIUM	NA	5200	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	1.5 U	0.51 U	NA	NA	NA	NA
NICKEL	89	71	NA	NA	NA	NA
POTASSIUM	NA	2900 U	NA	NA	NA	NA
SELENIUM	1 U	0.48 U	NA	NA	NA	NA
SILICON DIOXIDE	NA	10000	NA	NA	NA	NA
SILVER	0.03 U	0.03 U	NA	NA	NA	NA
SODIUM	NA	11000	NA	NA	NA	NA
THALLIUM	0.28 U	0.28 U	NA	NA	NA	NA
VANADIUM	0.54 U	0.63 J	NA	NA	NA	NA
ZINC	26	120	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW60A	MRC-MW60B	MRC-MW62A	MRC-MW62C	MRC-MW63A	MRC-MW64A
SAMPLE ID	MRC-MW60A-031317	MRC-MW60B-031317	MRC-MW62A-031517	MRC-MW62C-031517	MRC-MW63A-041217	MRC-MW64A-040517
SAMPLE DATE	20170313	20170313	20170315	20170315	20170412	20170405
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	55	NA	NA	NA	NA
AMMONIA	NA	0.87 U	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	18	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	0.41 J	NA	NA	NA	NA
NITRATE-N	NA	0.035 U	NA	NA	NA	NA
NITRITE-N	NA	0.038 U	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	0.02 J	NA	NA	NA	NA
SULFATE	NA	2.9	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	110	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	0.047 UJ

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW64A		MRC-MW69A	MRC-MW69B	MRC-MW70A	MRC-MW70B
SAMPLE ID	MRC-MW64A-040517-	MRC-MW64A-040517-D	MRC-MW69A-041117	MRC-MW69B-041117	MRC-MW70A-041417	MRC-MW70B-041417
SAMPLE DATE	20170405	20170405	20170411	20170411	20170414	20170414
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	NA	NA	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	NA	NA	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROETHANE	NA	NA	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	NA	0.41 UJ	0.41 UJ	0.41 U	0.41 U
1,1-DICHLOROETHANE	NA	NA	0.25 U	0.25 U	0.35 J	1.4
1,1-DICHLOROETHENE	NA	NA	0.27 U	0.27 U	0.27 U	1.9
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	NA	NA	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	NA	NA	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	NA	NA	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	NA	NA	0.3 U	0.3 U	0.3 U	0.3 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	NA	NA	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	NA	NA	1 U	1 U	1 U	1 U
2-HEXANONE	NA	NA	1.2 U	1.2 U	1.2 U	1.2 U
4-METHYL-2-PENTANONE	NA	NA	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	NA	NA	1.8 U	1.8 U	1.8 U	1.8 U
BENZENE	NA	NA	0.28 U	0.28 U	0.28 U	0.28 U
BROMODICHLOROMETHANE	NA	NA	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	NA	NA	0.43 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	NA	NA	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	NA	NA	0.34 UJ	0.34 UJ	0.34 U	0.34 U
CARBON TETRACHLORIDE	NA	NA	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	NA	NA	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	NA	NA	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROETHANE	NA	NA	0.41 U	0.41 U	0.41 U	0.41 U
CHLOROFORM	NA	NA	0.31 U	0.31 U	0.31 U	0.31 U
CHLOROMETHANE	NA	NA	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	NA	NA	0.3 U	0.3 U	0.44 J	2.1
CIS-1,3-DICHLOROPROPENE	NA	NA	0.26 U	0.26 U	0.26 U	0.26 U
CYCLOHEXANE	NA	NA	0.44 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	NA	NA	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	NA	NA	0.21 U	0.21 U	0.21 U	0.21 U
METHYL ACETATE	NA	NA	1.4 U	1.4 U	1.4 U	1.4 U
METHYL CYCLOHEXANE	NA	NA	0.45 U	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	NA	NA	0.27 U	0.27 U	0.27 U	0.27 U
METHYLENE CHLORIDE	NA	NA	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	NA	NA	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	NA	NA	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	NA	NA	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	NA	NA	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	NA	NA	0.29 U	0.29 U	0.29 U	0.29 U
TRANS-1,3-DICHLOROPROPENE	NA	NA	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	NA	NA	0.33 U	0.33 U	0.33 U	3.9
TRICHLOROFLUOROMETHANE	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	NA	NA	0.45 U	0.45 U	0.45 U	3.5

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW64A		MRC-MW69A	MRC-MW69B	MRC-MW70A	MRC-MW70B
SAMPLE ID	MRC-MW64A-040517-20170405	MRC-MW64A-040517-D 20170405	MRC-MW69A-041117 20170411	MRC-MW69B-041117 20170411	MRC-MW70A-041417 20170414	MRC-MW70B-041417 20170414
SAMPLE DATE						
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	NA	NA	6.3	0.49	0.94	5
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	0.27 U	0.28 U
ARSENIC	NA	NA	NA	NA	4.9 J	11
BARIUM	NA	NA	NA	NA	110	160
BERYLLIUM	NA	NA	NA	NA	0.4 U	0.68 U
CADMIUM	NA	NA	NA	NA	0.31 U	0.31 U
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	1.1 J	8.9
COBALT	NA	NA	NA	NA	10	21
COPPER	NA	NA	NA	NA	1.6 U	6.5
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	0.5 J	4.4
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	0.13 U	0.13 U
MOLYBDENUM	NA	NA	NA	NA	0.51 U	0.54 J
NICKEL	NA	NA	NA	NA	6.9	66
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	0.48 U	0.48 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	0.03 U	0.047 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	0.28 U	0.28 U
VANADIUM	NA	NA	NA	NA	1.8 J	13
ZINC	NA	NA	NA	NA	14 J	93

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW64A		MRC-MW69A	MRC-MW69B	MRC-MW70A	MRC-MW70B
SAMPLE ID	MRC-MW64A-040517-20170405	MRC-MW64A-040517-D 20170405	MRC-MW69A-041117 20170411	MRC-MW69B-041117 20170411	MRC-MW70A-041417 20170414	MRC-MW70B-041417 20170414
SAMPLE DATE						
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	0.047 UJ	0.047 UJ	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW71A	MRC-MW71B	MRC-MW72B	MRC-MW73A	MRC-MW73B	MRC-MW74A
SAMPLE ID	MRC-MW71A-040617	MRC-MW71B-040617	MRC-MW72B-041817	MRC-MW73A-032317	MRC-MW73B-032317	MRC-MW74A-032217
SAMPLE DATE	20170406	20170406	20170418	20170323	20170323	20170322
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.23 U	1 J	23 U	NA	0.23 U	0.77 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.4 U	32 U	NA	0.32 U	1.1 U
1,1,2-TRICHLOROETHANE	0.34 U	0.43 U	34 U	NA	0.34 U	1.1 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 UJ	0.51 UJ	41 UJ	NA	0.41 U	1.4 U
1,1-DICHLOROETHANE	0.25 U	6.9	25 U	NA	0.25 U	0.83 U
1,1-DICHLOROETHENE	0.27 J	68	27 U	NA	0.27 U	0.9 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.27 U	0.34 U	27 U	NA	0.27 U	0.9 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.59 U	47 U	NA	0.47 U	1.6 U
1,2-DIBROMOETHANE	0.23 U	0.29 U	23 U	NA	0.23 U	0.77 U
1,2-DICHLOROBENZENE	0.26 U	0.33 U	26 U	NA	0.26 U	0.87 U
1,2-DICHLOROETHANE	0.3 U	0.74 J	30 U	NA	0.3 U	1 U
1,2-DICHLOROPROPANE	0.3 U	0.38 U	30 U	NA	0.3 U	1 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.32 U	0.4 U	32 U	NA	0.32 U	1.1 U
1,4-DICHLOROBENZENE	0.23 U	0.29 U	23 U	NA	0.23 U	0.77 U
2-BUTANONE	1 U	1.3 U	100 U	NA	1 UJ	3.4 U
2-HEXANONE	1.2 U	1.5 U	120 U	NA	1.2 UJ	4.1 U
4-METHYL-2-PENTANONE	0.71 U	0.89 U	71 U	NA	0.71 U	2.4 U
ACETONE	2.5 J	2.2 U	180 U	NA	1.8 UJ	5.9 U
BENZENE	0.28 U	0.35 U	28 U	NA	0.28 U	0.93 U
BROMODICHLOROMETHANE	0.3 U	0.38 U	30 U	NA	0.3 U	1 U
BROMOFORM	0.43 U	0.54 U	43 U	NA	0.43 UJ	1.4 U
BROMOMETHANE	0.42 U	0.53 U	42 U	NA	0.42 UJ	1.4 U
CARBON DISULFIDE	0.34 UJ	0.43 UJ	34 U	NA	0.34 U	1.1 U
CARBON TETRACHLORIDE	0.35 U	0.44 U	35 U	NA	0.35 U	1.2 U
CHLOROBENZENE	0.32 U	0.4 U	32 U	NA	0.32 U	1.1 U
CHLORODIBROMOMETHANE	0.25 U	0.31 U	25 U	NA	0.25 U	0.83 U
CHLOROETHANE	0.41 U	0.51 U	41 U	NA	0.41 U	1.4 U
CHLOROFORM	0.31 U	0.39 U	31 U	NA	0.31 U	1 U
CHLOROMETHANE	0.43 U	0.54 U	43 U	NA	0.43 U	1.4 U
CIS-1,2-DICHLOROETHENE	0.3 U	11	260	NA	0.79 J	2.8 J
CIS-1,3-DICHLOROPROPENE	0.26 U	0.33 U	26 U	NA	0.26 U	0.87 U
CYCLOHEXANE	0.44 U	0.55 U	44 U	NA	0.44 U	1.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.63 U	50 UJ	NA	0.5 U	1.7 U
ETHYLBENZENE	0.26 U	0.33 U	26 U	NA	0.26 U	0.87 U
ISOPROPYLBENZENE	0.21 U	0.26 U	21 U	NA	0.21 U	0.7 U
METHYL ACETATE	1.4 U	1.8 U	140 U	NA	1.4 U	4.8 U
METHYL CYCLOHEXANE	0.45 UJ	0.56 UJ	45 U	NA	0.45 U	1.5 U
METHYL TERT-BUTYL ETHER	0.27 U	0.34 U	27 U	NA	0.27 U	0.9 U
METHYLENE CHLORIDE	0.53 U	2.5 U	53 U	NA	0.53 U	3.4 U
STYRENE	0.23 U	0.29 U	23 U	NA	0.23 U	0.77 U
TETRACHLOROETHENE	0.3 U	0.7 J	30 U	NA	0.3 U	1 U
TOLUENE	0.23 U	0.29 U	23 U	NA	0.23 U	0.77 U
TOTAL XYLENES	0.24 U	0.3 U	24 U	NA	0.24 U	0.8 U
TRANS-1,2-DICHLOROETHENE	0.29 U	0.36 U	29 U	NA	0.29 U	0.97 U
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.39 U	31 U	NA	0.31 U	1 U
TRICHLOROETHENE	0.33 U	81	3000	NA	30	84
TRICHLOROFLUOROMETHANE	0.5 U	0.63 U	50 UJ	NA	0.5 U	1.7 U
VINYL CHLORIDE	0.45 U	0.56 U	45 U	NA	0.45 U	1.5 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW71A	MRC-MW71B	MRC-MW72B	MRC-MW73A	MRC-MW73B	MRC-MW74A
SAMPLE ID	MRC-MW71A-040617	MRC-MW71B-040617	MRC-MW72B-041817	MRC-MW73A-032317	MRC-MW73B-032317	MRC-MW74A-032217
SAMPLE DATE	20170406	20170406	20170418	20170323	20170323	20170322
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	0.14 U	NA	NA	NA
ETHENE	NA	NA	0.13 U	NA	NA	NA
METHANE	NA	NA	1.2	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	0.12 J	35	0.21	0.057 U	0.31	0.057 U
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	0.076 U
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	0.0059 U
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	0.033 U
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	0.016 U
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	0.0061 U
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	0.053 U
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	0.041 U
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	0.015 U
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	0.014 U
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	0.0071 U
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	0
METALS (UG/L)						
ANTIMONY	8.2	0.71 U	0.27 U	2.4	0.63 U	0.84 U
ARSENIC	2.3 J	0.35 U	0.35 U	1.1 J	0.35 UJ	0.86 J
BARIUM	95	84	19	37 J	39 J	57
BERYLLIUM	0.63 U	0.4 U	0.77 U	0.4 U	2.2	0.4 U
CADMIUM	0.94 U	0.31 U	0.31 U	0.31 UJ	0.31 UJ	0.31 U
CALCIUM	NA	NA	2200 J	NA	NA	NA
CHROMIUM	16	0.26 U	0.55 J	3.7 J	0.45 J	1.1 J
COBALT	3.4	61	7	1.6 J	19 J	1.7
COPPER	15	0.36 U	1.3 J	2.8 J	6.7 J	2.3
IRON	NA	NA	250	NA	NA	NA
LEAD	23	0.21 U	0.59 U	1.3	0.41 J	0.64 U
MAGNESIUM	NA	NA	1000 J	NA	NA	NA
MANGANESE	NA	NA	43	NA	NA	NA
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	3.4 U	0.51 U	0.51 U	0.94 U	0.51 UJ	1.3 U
NICKEL	16	74	12	4.5 J	25 J	0.65 J
POTASSIUM	NA	NA	1500 J	NA	NA	NA
SELENIUM	2 J	0.48 U	0.48 U	3 J	0.98 J	1 J
SILICON DIOXIDE	NA	NA	8800	NA	NA	NA
SILVER	0.35 J	0.03 U	0.03 U	0.03 UJ	0.03 UJ	0.03 U
SODIUM	NA	NA	8300	NA	NA	NA
THALLIUM	0.28 U	0.28 U	0.28 U	0.28 U	0.28 UJ	0.28 U
VANADIUM	30	0.54 U	0.8 J	5.7 J	0.82 J	1 J
ZINC	480	150	61	13 J	51 J	13 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW71A	MRC-MW71B	MRC-MW72B	MRC-MW73A	MRC-MW73B	MRC-MW74A
SAMPLE ID	MRC-MW71A-040617	MRC-MW71B-040617	MRC-MW72B-041817	MRC-MW73A-032317	MRC-MW73B-032317	MRC-MW74A-032217
SAMPLE DATE	20170406	20170406	20170418	20170323	20170323	20170322
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	5.3	NA	NA	NA
AMMONIA	NA	NA	0.87 U	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	14	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	0.27 J	NA	NA	NA
NITRATE-N	NA	NA	0.44	NA	NA	NA
NITRITE-N	NA	NA	0.11	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	0.056 U	NA	NA	NA
SULFATE	NA	NA	1.3	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	22	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW74B	MRC-MW74C	MRC-MW76A	MRC-MW76B	MRC-MW77A	MRC-MW78B
SAMPLE ID	MRC-MW74B-032217	MRC-MW74C-032217	MRC-MW76A-030817	MRC-MW76B-030817	MRC-MW77A-040717	MRC-MW78B-031317
SAMPLE DATE	20170322	20170322	20170308	20170308	20170407	20170313
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	580 U	NA	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	800 U	NA	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROETHANE	850 U	NA	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1000 U	NA	0.41 U	0.41 U	0.41 UJ	0.41 U
1,1-DICHLOROETHANE	630 U	NA	0.25 U	2.2	11	0.25 U
1,1-DICHLOROETHENE	680 U	NA	0.27 U	1.3	1.4	0.27 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	680 U	NA	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	1200 U	NA	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	580 U	NA	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	650 U	NA	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	750 U	NA	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	750 U	NA	0.3 U	0.3 U	0.3 U	0.3 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	800 U	NA	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	580 U	NA	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	2600 U	NA	1 UJ	1 UJ	1 U	1 U
2-HEXANONE	3100 U	NA	1.2 U	1.2 U	1.2 U	1.2 UJ
4-METHYL-2-PENTANONE	1800 U	NA	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	4400 U	NA	1.8 U	1.8 U	1.8 U	1.8 U
BENZENE	700 U	NA	0.28 U	0.28 U	11	0.28 U
BROMODICHLOROMETHANE	750 U	NA	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	1100 U	NA	0.43 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	1100 U	NA	0.42 UJ	0.42 UJ	0.42 U	0.42 U
CARBON DISULFIDE	850 U	NA	0.34 U	0.34 U	0.34 UJ	0.34 U
CARBON TETRACHLORIDE	880 U	NA	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	800 U	NA	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	630 U	NA	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROETHANE	1000 U	NA	0.41 UJ	0.41 UJ	0.41 U	1.2
CHLOROFORM	780 U	NA	0.31 U	0.31 U	0.31 U	0.31 U
CHLOROMETHANE	1100 U	NA	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	750 U	NA	0.3 U	1.4	2.3	1.3
CIS-1,3-DICHLOROPROPENE	650 U	NA	0.26 U	0.26 U	0.26 U	0.26 U
CYCLOHEXANE	1100 U	NA	0.9 J	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	1300 U	NA	0.5 UJ	0.5 UJ	0.5 U	0.5 U
ETHYLBENZENE	650 U	NA	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	530 U	NA	0.21 U	0.21 U	0.4 J	0.21 U
METHYL ACETATE	3600 U	NA	1.4 U	1.4 U	1.4 U	1.4 U
METHYL CYCLOHEXANE	1100 U	NA	0.45 U	0.45 U	0.45 UJ	0.45 UJ
METHYL TERT-BUTYL ETHER	680 U	NA	0.27 U	0.27 U	74	0.27 U
METHYLENE CHLORIDE	4000 U	NA	0.53 U	0.53 U	0.54 U	0.53 U
STYRENE	580 U	NA	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	750 U	NA	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	580 U	NA	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	600 U	NA	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	730 U	NA	0.29 U	0.29 U	0.29 U	0.93 J
TRANS-1,3-DICHLOROPROPENE	780 U	NA	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	38000	NA	0.33 U	13	5	6.7
TRICHLOROFLUOROMETHANE	1300 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	1100 U	NA	0.45 U	0.45 U	0.84 J	0.98 J

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW74B	MRC-MW74C	MRC-MW76A	MRC-MW76B	MRC-MW77A	MRC-MW78B
SAMPLE ID	MRC-MW74B-032217	MRC-MW74C-032217	MRC-MW76A-030817	MRC-MW76B-030817	MRC-MW77A-040717	MRC-MW78B-031317
SAMPLE DATE	20170322	20170322	20170308	20170308	20170407	20170313
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	0.26	NA	NA	NA	NA	NA
PCBS (UG/L)						
DECACHLOROBIPHENYL	0.071 U	0.073 U	NA	NA	NA	NA
DICHLOROBIPHENYLS	0.0055 U	0.0056 U	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	0.031 U	0.031 U	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	0.015 U	0.016 U	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	0.0057 U	0.0058 U	NA	NA	NA	NA
NONACHLOROBIPHENYLS	0.05 U	0.051 U	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	0.039 U	0.04 U	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	0.014 J	0.015 U	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	0.013 U	0.014 U	NA	NA	NA	NA
TRICHLOROBIPHENYLS	0.0066 U	0.0068 U	NA	NA	NA	NA
TOTAL HOMOLOGS	0.014	0	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.39 U	NA	NA	NA	NA	0.4 U
ARSENIC	0.46 J	NA	NA	NA	NA	2.1 J
BARIUM	46	NA	NA	NA	NA	190 J
BERYLLIUM	0.4 U	NA	NA	NA	NA	0.4 U
CADMIUM	0.31 U	NA	NA	NA	NA	0.31 UJ
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	0.96 J	NA	NA	NA	NA	2.1 J
COBALT	3.2	NA	NA	NA	NA	57 J
COPPER	1.6 U	NA	NA	NA	NA	2.9 J
IRON	NA	NA	NA	NA	NA	NA
LEAD	0.75 U	NA	NA	NA	NA	1.4 J
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	0.13 U	NA	NA	NA	NA	NA
MOLYBDENUM	0.51 U	NA	NA	NA	NA	2.4 U
NICKEL	8.7	NA	NA	NA	NA	11 J
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	0.48 U	NA	NA	NA	NA	0.84 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	0.03 U	NA	NA	NA	NA	0.03 UJ
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	0.28 U	NA	NA	NA	NA	0.28 UJ
VANADIUM	1.6 J	NA	NA	NA	NA	3.1 J
ZINC	54	NA	NA	NA	NA	42 J

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW74B	MRC-MW74C	MRC-MW76A	MRC-MW76B	MRC-MW77A	MRC-MW78B
SAMPLE ID	MRC-MW74B-032217	MRC-MW74C-032217	MRC-MW76A-030817	MRC-MW76B-030817	MRC-MW77A-040717	MRC-MW78B-031317
SAMPLE DATE	20170322	20170322	20170308	20170308	20170407	20170313
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW79B	MRC-MW80A			MRC-MW80B	MRC-MW81A
SAMPLE ID	MRC-MW79B-032817	MRC-MW80A-041417	MRC-MW80A-041417-	MRC-MW80A-041417-	MRC-MW80B-041417	MRC-MW81A-031317
SAMPLE DATE	20170328	20170414	20170414	20170414	20170414	20170313
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	12 U	NA	NA	NA	0.23 U	NA
1,1,2,2-TETRACHLOROETHANE	16 U	NA	NA	NA	0.32 U	NA
1,1,2-TRICHLOROETHANE	17 U	NA	NA	NA	0.34 U	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	21 UJ	NA	NA	NA	0.41 U	NA
1,1-DICHLOROETHANE	13 U	NA	NA	NA	1.2	NA
1,1-DICHLOROETHENE	14 U	NA	NA	NA	17	NA
1,2,3-TRICHLOROBENZENE	18 U	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	14 U	NA	NA	NA	0.27 U	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	24 U	NA	NA	NA	0.47 U	NA
1,2-DIBROMOETHANE	12 U	NA	NA	NA	0.23 U	NA
1,2-DICHLOROBENZENE	13 U	NA	NA	NA	0.26 U	NA
1,2-DICHLOROETHANE	15 U	NA	NA	NA	0.34 J	NA
1,2-DICHLOROPROPANE	15 U	NA	NA	NA	0.3 U	NA
1,3,5-TRICHLOROBENZENE	17 U	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	16 U	NA	NA	NA	0.32 U	NA
1,4-DICHLOROBENZENE	12 U	NA	NA	NA	0.23 U	NA
2-BUTANONE	51 U	NA	NA	NA	1 U	NA
2-HEXANONE	62 U	NA	NA	NA	1.2 U	NA
4-METHYL-2-PENTANONE	36 U	NA	NA	NA	0.71 U	NA
ACETONE	88 U	NA	NA	NA	1.8 U	NA
BENZENE	14 U	NA	NA	NA	0.28 U	NA
BROMODICHLOROMETHANE	15 U	NA	NA	NA	0.3 U	NA
BROMOFORM	22 U	NA	NA	NA	0.43 U	NA
BROMOMETHANE	21 U	NA	NA	NA	0.42 U	NA
CARBON DISULFIDE	17 UJ	NA	NA	NA	0.34 U	NA
CARBON TETRACHLORIDE	18 U	NA	NA	NA	0.35 U	NA
CHLOROBENZENE	16 U	NA	NA	NA	0.32 U	NA
CHLORODIBROMOMETHANE	13 U	NA	NA	NA	0.25 U	NA
CHLOROETHANE	21 U	NA	NA	NA	0.41 U	NA
CHLOROFORM	16 U	NA	NA	NA	0.31 U	NA
CHLOROMETHANE	22 U	NA	NA	NA	0.43 U	NA
CIS-1,2-DICHLOROETHENE	1900	NA	NA	NA	1.8	NA
CIS-1,3-DICHLOROPROPENE	13 U	NA	NA	NA	0.26 U	NA
CYCLOHEXANE	22 UJ	NA	NA	NA	0.44 U	NA
DICHLORODIFLUOROMETHANE	25 UJ	NA	NA	NA	0.5 U	NA
ETHYLBENZENE	13 U	NA	NA	NA	0.26 U	NA
ISOPROPYLBENZENE	11 U	NA	NA	NA	0.21 U	NA
METHYL ACETATE	72 U	NA	NA	NA	1.4 U	NA
METHYL CYCLOHEXANE	23 UJ	NA	NA	NA	0.45 U	NA
METHYL TERT-BUTYL ETHER	14 U	NA	NA	NA	0.27 U	NA
METHYLENE CHLORIDE	27 U	NA	NA	NA	0.53 U	NA
STYRENE	12 U	NA	NA	NA	0.23 U	NA
TETRACHLOROETHENE	15 U	NA	NA	NA	0.3 U	NA
TOLUENE	12 U	NA	NA	NA	0.23 U	NA
TOTAL XYLENES	12 U	NA	NA	NA	0.24 U	NA
TRANS-1,2-DICHLOROETHENE	16 J	NA	NA	NA	0.29 U	NA
TRANS-1,3-DICHLOROPROPENE	16 U	NA	NA	NA	0.31 U	NA
TRICHLOROETHENE	1600	NA	NA	NA	55	NA
TRICHLOROFLUOROMETHANE	25 U	NA	NA	NA	0.5 U	NA
VINYL CHLORIDE	38 J	NA	NA	NA	0.45 U	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW79B	MRC-MW80A			MRC-MW80B	MRC-MW81A
SAMPLE ID	MRC-MW79B-032817	MRC-MW80A-041417	MRC-MW80A-041417-	MRC-MW80A-041417-	MRC-MW80B-041417	MRC-MW81A-031317
SAMPLE DATE	20170328	20170414	20170414	20170414	20170414	20170313
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	14	0.67	0.66	0.65	14	2
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	NA	1.3 U
ARSENIC	NA	NA	NA	NA	NA	3.1 J
BARIUM	NA	NA	NA	NA	NA	160
BERYLLIUM	NA	NA	NA	NA	NA	0.98 J
CADMIUM	NA	NA	NA	NA	NA	0.31 U
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	0.41 J
COBALT	NA	NA	NA	NA	NA	4.3
COPPER	NA	NA	NA	NA	NA	0.44 U
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	0.32 U
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	0.65 U
NICKEL	NA	NA	NA	NA	NA	12
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	3.4 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	0.03 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	0.28 U
VANADIUM	NA	NA	NA	NA	NA	0.54 U
ZINC	NA	NA	NA	NA	NA	21

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW79B	MRC-MW80A			MRC-MW80B	MRC-MW81A
SAMPLE ID	MRC-MW79B-032817	MRC-MW80A-041417	MRC-MW80A-041417-	MRC-MW80A-041417-	MRC-MW80B-041417	MRC-MW81A-031317
SAMPLE DATE	20170328	20170414	20170414	20170414	20170414	20170313
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW81B	MRC-MW87A	MRC-MW87B	MRC-MW88B	MRC-MW90B	MRC-MW92C
SAMPLE ID	MRC-MW81B-041917	MRC-MW87A-040717	MRC-MW87B-040617	MRC-MW88B-031017	MRC-MW90B-040417	MRC-MW92C-041917
SAMPLE DATE	20170419	20170407	20170406	20170310	20170404	20170419
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	3.2 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROETHANE	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	4.1 U	0.41 UJ	0.41 UJ	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	5.8 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	3.3 J	0.27 U	0.27 U	0.27 U	3	0.27 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	2.7 U	0.27 U	0.27 U	0.27 U	0.27 UJ	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	4.7 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	2.6 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	3.2 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	10 U	1 U	1 U	1 UJ	1 U	1 U
2-HEXANONE	12 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
4-METHYL-2-PENTANONE	7.1 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	18 U	1.8 U	25	1.8 U	1.9 J	1.8 U
BENZENE	2.8 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
BROMODICHLOROMETHANE	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	4.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	4.2 U	0.42 U	0.42 U	0.42 UJ	0.42 U	0.42 U
CARBON DISULFIDE	3.4 U	0.34 UJ	0.34 UJ	0.34 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	3.5 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	3.2 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	2.5 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROETHANE	4.1 U	0.41 U	0.41 U	0.41 UJ	0.41 U	0.41 U
CHLOROFORM	3.1 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
CHLOROMETHANE	4.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	300	0.3 U	0.3 U	0.3 U	0.87 J	5.7
CIS-1,3-DICHLOROPROPENE	2.6 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CYCLOHEXANE	4.4 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U
ETHYLBENZENE	2.6 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	2.1 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
METHYL ACETATE	14 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
METHYL CYCLOHEXANE	4.5 U	0.45 UJ	0.45 UJ	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	2.7 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
METHYLENE CHLORIDE	5.3 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	2.3 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	2.4 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	8.7 J	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
TRANS-1,3-DICHLOROPROPENE	3.1 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	27	0.33 U	17	0.33 U	28	5.7
TRICHLOROFLUOROMETHANE	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	220	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW81B	MRC-MW87A	MRC-MW87B	MRC-MW88B	MRC-MW90B	MRC-MW92C
SAMPLE ID	MRC-MW81B-041917	MRC-MW87A-040717	MRC-MW87B-040617	MRC-MW88B-031017	MRC-MW90B-040417	MRC-MW92C-041917
SAMPLE DATE	20170419	20170407	20170406	20170310	20170404	20170419
VOLATILE GASES (UG/L)						
ETHANE	24	NA	NA	NA	NA	NA
ETHENE	170	NA	NA	NA	NA	NA
METHANE	3600	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	3.9	0.75	0.15 J	NA	1.9	0.095 J
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	0.48 U	NA	NA	NA	NA	0.27 U
ARSENIC	0.6 J	NA	NA	NA	NA	0.35 U
BARIUM	190	NA	NA	NA	NA	97
BERYLLIUM	0.41 U	NA	NA	NA	NA	0.4 U
CADMIUM	0.31 U	NA	NA	NA	NA	0.31 U
CALCIUM	33000	NA	NA	NA	NA	NA
CHROMIUM	0.49 J	NA	NA	NA	NA	1.2 J
COBALT	13	NA	NA	NA	NA	2.3
COPPER	0.36 U	NA	NA	NA	NA	0.36 U
IRON	32000	NA	NA	NA	NA	NA
LEAD	0.53 U	NA	NA	NA	NA	0.41 U
MAGNESIUM	4600 J	NA	NA	NA	NA	NA
MANGANESE	1400	NA	NA	NA	NA	NA
MERCURY	0.13 UJ	NA	NA	NA	NA	0.13 UJ
MOLYBDENUM	0.6 J	NA	NA	NA	NA	0.51 U
NICKEL	24	NA	NA	NA	NA	12
POTASSIUM	1500 J	NA	NA	NA	NA	NA
SELENIUM	0.51 J	NA	NA	NA	NA	0.48 U
SILICON DIOXIDE	14000	NA	NA	NA	NA	NA
SILVER	0.03 U	NA	NA	NA	NA	0.03 U
SODIUM	76000	NA	NA	NA	NA	NA
THALLIUM	0.28 U	NA	NA	NA	NA	0.28 U
VANADIUM	0.54 U	NA	NA	NA	NA	0.54 U
ZINC	6.2 U	NA	NA	NA	NA	6.8 J

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW81B	MRC-MW87A	MRC-MW87B	MRC-MW88B	MRC-MW90B	MRC-MW92C
SAMPLE ID	MRC-MW81B-041917	MRC-MW87A-040717	MRC-MW87B-040617	MRC-MW88B-031017	MRC-MW90B-040417	MRC-MW92C-041917
SAMPLE DATE	20170419	20170407	20170406	20170310	20170404	20170419
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	150	NA	NA	NA	NA	NA
AMMONIA	0.87 U	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	77	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	1.2	NA	NA	NA	NA	NA
NITRATE-N	0.046 J	NA	NA	NA	NA	NA
NITRITE-N	0.038 U	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	0.097 J	NA	NA	NA	NA	NA
SULFATE	2.7	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	290	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW93A		MRC-MW93A	MRC-MW94B	MRC-MW95B	MRC-MW96A
SAMPLE ID	MRC-MW93A-041417	MRC-MW93A-041417-2	MRC-MW93A-041417-3	MRC-MW94B-030907	MRC-MW95B-031717	MRC-MW96A-040417
SAMPLE DATE	20170414	20170414	20170419	20170309	20170317	20170404
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	120 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	160 U
1,1,2-TRICHLOROETHANE	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	170 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	210 U
1,1-DICHLOROETHANE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	130 U
1,1-DICHLOROETHENE	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	140 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.27 U	0.27 UJ	140 UJ
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	240 U
1,2-DIBROMOETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	120 U
1,2-DICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	130 U
1,2-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	150 U
1,2-DICHLOROPROPANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	150 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	160 U
1,4-DICHLOROBENZENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	120 U
2-BUTANONE	1 U	1 U	1 U	1 U	1 U	510 U
2-HEXANONE	1.2 U	1.2 U	1.2 U	1.2 U	1.2 UJ	620 U
4-METHYL-2-PENTANONE	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	360 U
ACETONE	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	880 U
BENZENE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	140 U
BROMODICHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	150 U
BROMOFORM	0.43 U	0.43 U	0.43 U	0.43 UJ	0.43 U	220 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 UJ	0.42 U	210 U
CARBON DISULFIDE	0.42 J	0.30	0.34 U	0.34 U	0.34 U	170 U
CARBON TETRACHLORIDE	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	180 U
CHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	160 U
CHLORODIBROMOMETHANE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	130 U
CHLOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	210 U
CHLOROFORM	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	160 U
CHLOROMETHANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	220 U
CIS-1,2-DICHLOROETHENE	1.4 J	3.7	5.9 J	0.3 U	0.3 U	29000
CIS-1,3-DICHLOROPROPENE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	130 U
CYCLOHEXANE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	220 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	250 UJ
ETHYLBENZENE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	130 U
ISOPROPYLBENZENE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	110 U
METHYL ACETATE	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	720 U
METHYL CYCLOHEXANE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 UJ	230 U
METHYL TERT-BUTYL ETHER	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	140 U
METHYLENE CHLORIDE	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	720 U
STYRENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	120 U
TETRACHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	150 U
TOLUENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	120 U
TOTAL XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	120 U
TRANS-1,2-DICHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	150 U
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	160 U
TRICHLOROETHENE	2.4 J	4.1	5.7 J	0.33 U	2.6	3300
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	250 U
VINYL CHLORIDE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	230 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW93A		MRC-MW93A	MRC-MW94B	MRC-MW95B	MRC-MW96A
SAMPLE ID	MRC-MW93A-041417	MRC-MW93A-041417-2	MRC-MW93A-041417-2	MRC-MW94B-030907	MRC-MW95B-031717	MRC-MW96A-040417
SAMPLE DATE	20170414	20170414	20170419	20170309	20170317	20170404
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	NA	NA	NA	NA	NA	4
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW93A		MRC-MW93A	MRC-MW94B	MRC-MW95B	MRC-MW96A
SAMPLE ID	MRC-MW93A-041417	MRC-MW93A-041417-	MRC-MW93A-041417-	MRC-MW94B-030907	MRC-MW95B-031717	MRC-MW96A-040417
SAMPLE DATE	20170414	20170414	20170419	20170309	20170317	20170404
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW96B	MRC-MW98A	MRC-MW98B	MRC-MW100A	MRC-MW100B	
SAMPLE ID	MRC-MW96B-040417	MRC-MW98A-042017	MRC-MW98B-042017	MRC-MW100A-041817	MRC-MW100B-041817	MRC-MW100B-
SAMPLE DATE	20170404	20170420	20170420	20170418	20170418	20170418
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	2.9 U	0.23 U	14	0.23 U	1.2 U	1.2 U
1,1,2,2-TETRACHLOROETHANE	4 U	0.32 U	4 U	0.32 U	1.6 U	1.6 U
1,1,2-TRICHLOROETHANE	4.3 U	0.34 U	4.3 U	0.34 U	1.7 U	1.7 U
1,1,2-TRICHLOROTRIFLUOROETHANE	5.1 U	0.41 U	5.1 U	0.41 UJ	2.1 UJ	2.1 UJ
1,1-DICHLOROETHANE	3.1 U	0.82 J	74	2.1	25	25
1,1-DICHLOROETHENE	3.4 U	1	170	1.4	76	76
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	3.4 UJ	0.27 U	3.4 U	0.27 U	1.4 U	1.4 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	5.9 U	0.47 U	5.9 U	0.47 U	2.4 U	2.4 U
1,2-DIBROMOETHANE	2.9 U	0.23 U	2.9 U	0.23 U	1.2 U	1.2 U
1,2-DICHLOROBENZENE	3.3 U	0.26 U	3.3 U	0.26 U	1.3 U	1.3 U
1,2-DICHLOROETHANE	3.8 U	0.3 U	3.8 U	0.3 U	1.5 U	1.5 U
1,2-DICHLOROPROPANE	3.8 U	0.3 U	3.8 U	0.3 U	1.5 U	1.5 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	4 U	0.32 U	4 U	0.32 U	1.6 U	1.6 U
1,4-DICHLOROBENZENE	2.9 U	0.23 U	2.9 U	0.23 U	1.2 U	1.2 U
2-BUTANONE	13 U	1 U	13 U	1 U	5.1 U	5.1 U
2-HEXANONE	15 U	1.2 U	15 U	1.2 U	6.2 U	6.2 U
4-METHYL-2-PENTANONE	8.9 U	0.71 U	8.9 U	0.71 U	3.6 U	3.6 U
ACETONE	22 U	1.8 U	22 U	1.8 U	8.8 U	8.8 U
BENZENE	720	0.28 U	3.5 U	0.28 U	1.4 U	1.4 U
BROMODICHLOROMETHANE	3.8 U	0.3 U	3.8 U	0.3 U	1.5 U	1.5 U
BROMOFORM	5.4 U	0.43 U	5.4 U	0.43 U	2.2 U	2.2 U
BROMOMETHANE	5.3 U	0.42 U	5.3 U	0.42 U	2.1 U	2.1 U
CARBON DISULFIDE	4.3 U	0.34 U	4.3 U	0.34 U	1.7 U	1.7 U
CARBON TETRACHLORIDE	4.4 U	0.35 U	4.4 U	0.35 U	1.8 U	1.8 U
CHLOROBENZENE	4 U	0.32 U	4 U	0.32 U	1.6 U	1.6 U
CHLORODIBROMOMETHANE	3.1 U	0.25 U	3.1 U	0.25 U	1.3 U	1.3 U
CHLOROETHANE	5.1 U	0.41 U	19	0.41 U	2.1 U	2.1 U
CHLOROFORM	3.9 U	0.31 U	3.9 U	0.31 U	1.6 U	1.6 U
CHLOROMETHANE	5.4 U	0.43 U	5.4 U	0.43 U	2.2 U	2.2 U
CIS-1,2-DICHLOROETHENE	11 J	0.3 U	17	0.92 J	34	34
CIS-1,3-DICHLOROPROPENE	3.3 U	0.26 U	3.3 U	0.26 U	1.3 U	1.3 U
CYCLOHEXANE	11 J	0.44 U	5.5 U	0.44 U	2.2 U	2.2 U
DICHLORODIFLUOROMETHANE	6.3 UJ	0.5 U	6.3 U	0.5 UJ	2.5 UJ	2.5 UJ
ETHYLBENZENE	6.2 J	0.26 U	3.3 U	0.26 U	1.3 U	1.3 U
ISOPROPYLBENZENE	10 J	0.21 U	2.6 U	0.21 U	1.1 U	1.1 U
METHYL ACETATE	18 U	1.4 U	18 U	1.4 U	7.2 U	7.2 U
METHYL CYCLOHEXANE	5.6 U	0.45 U	5.6 U	0.45 U	2.3 U	2.3 U
METHYL TERT-BUTYL ETHER	34	0.27 U	3.4 U	0.27 U	1.4 U	1.4 U
METHYLENE CHLORIDE	15 U	0.53 U	6.6 U	0.53 U	2.7 U	2.7 U
STYRENE	2.9 U	0.23 U	2.9 U	0.23 U	1.2 U	1.2 U
TETRACHLOROETHENE	3.8 U	0.3 U	4 J	0.3 U	1.5 U	1.5 U
TOLUENE	2.9 U	0.23 U	2.9 U	0.23 U	1.2 U	1.2 U
TOTAL XYLENES	110	0.24 U	3 U	0.24 U	1.2 U	1.2 U
TRANS-1,2-DICHLOROETHENE	3.6 U	0.29 U	3.6 U	0.29 U	1.5 U	1.5 U
TRANS-1,3-DICHLOROPROPENE	3.9 U	0.31 U	3.9 U	0.31 U	1.6 U	1.6 U
TRICHLOROETHENE	12 J	1.2	350	6	200	200
TRICHLOROFLUOROMETHANE	6.3 U	0.5 U	6.3 U	0.5 UJ	2.5 UJ	2.5 UJ
VINYL CHLORIDE	5.6 U	0.45 U	5.6 U	0.45 U	2.3 U	2.3 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW96B	MRC-MW98A	MRC-MW98B	MRC-MW100A	MRC-MW100B	
SAMPLE ID	MRC-MW96B-040417	MRC-MW98A-042017	MRC-MW98B-042017	MRC-MW100A-041817	MRC-MW100B-041817	MRC-MW100B-
SAMPLE DATE	20170404	20170420	20170420	20170418	20170418	20170418
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	0.91	1.1	140	2.4	89	90
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW96B	MRC-MW98A	MRC-MW98B	MRC-MW100A	MRC-MW100B	
SAMPLE ID	MRC-MW96B-040417	MRC-MW98A-042017	MRC-MW98B-042017	MRC-MW100A-041817	MRC-MW100B-041817	MRC-MW100B-
SAMPLE DATE	20170404	20170420	20170420	20170418	20170418	20170418
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW100B	MRC-MW101A	MRC-MW101B	MRC-MW102A	MRC-MW102A	
SAMPLE ID	MRC-MW100B-20170418	MRC-MW101A-032817	MRC-MW101B-032817	MRC-MW102A-032817	MRC-MW102A-20170328	MRC-MW102A-20170328
SAMPLE DATE		20170328	20170328	20170328		
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	NA	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	NA	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROETHANE	NA	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	0.41 UJ	0.41 UJ	0.41 UJ	0.41 U	0.41 UJ
1,1-DICHLOROETHANE	NA	0.58 J	5.3	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	NA	0.66 J	1.8	0.27 U	0.27 U	0.27 U
1,2,3-TRICHLOROBENZENE	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,4-TRICHLOROBENZENE	NA	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	NA	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3,5-TRICHLOROBENZENE	NA	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,3-DICHLOROBENZENE	NA	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	NA	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	NA	1 U	1 U	1 U	1 U	1 U
2-HEXANONE	NA	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
4-METHYL-2-PENTANONE	NA	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	NA	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
BENZENE	NA	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
BROMODICHLOROMETHANE	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	NA	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	NA	0.34 UJ	0.34 UJ	0.34 UJ	0.34 U	0.34 UJ
CARBON TETRACHLORIDE	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	NA	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROETHANE	NA	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CHLOROFORM	NA	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
CHLOROMETHANE	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	NA	28	1.6	1.9	1.9	1.8
CIS-1,3-DICHLOROPROPENE	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CYCLOHEXANE	NA	0.44 UJ	0.44 UJ	1.4 J	1.3	1.1 J
DICHLORODIFLUOROMETHANE	NA	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
ETHYLBENZENE	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	NA	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
METHYL ACETATE	NA	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
METHYL CYCLOHEXANE	NA	0.45 UJ	0.45 UJ	0.47 J	0.35	0.45 UJ
METHYL TERT-BUTYL ETHER	NA	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
METHYLENE CHLORIDE	NA	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	NA	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	NA	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	NA	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	NA	1.6	0.29 U	0.29 U	0.29 U	0.29 U
TRANS-1,3-DICHLOROPROPENE	NA	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	NA	4.4	1.7	0.33 U	0.33 U	0.33 U
TRICHLOROFLUOROMETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	NA	1.9	0.45 U	0.45 U	0.45 U	0.45 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW100B	MRC-MW101A	MRC-MW101B	MRC-MW102A	MRC-MW102A	
SAMPLE ID	MRC-MW100B-20170418	MRC-MW101A-032817	MRC-MW101B-032817	MRC-MW102A-032817	MRC-MW102A-20170328	MRC-MW102A-20170328
SAMPLE DATE		20170328	20170328	20170328		
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	90	3.7	8	NA	NA	NA
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW100B	MRC-MW101A	MRC-MW101B	MRC-MW102A	MRC-MW102A	
SAMPLE ID	MRC-MW100B-20170418	MRC-MW101A-032817	MRC-MW101B-032817	MRC-MW102A-032817	MRC-MW102A-20170328	MRC-MW102A-20170328
SAMPLE DATE		20170328	20170328	20170328		
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW102B	MRC-MW102B	MRC-MW103A			MRC-MW103B
SAMPLE ID	MRC-MW102B-032817	MRC-MW102B-032917	MRC-MW103A-030907	MRC-MW103A-	MRC-MW103A-	MRC-MW103B-030907
SAMPLE DATE	20170328	20170329	20170309	20170309	20170309	20170309
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	NA	2.9 U	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	4 U	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	4.3 U	NA	NA	NA	NA
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	5.1 U	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	3.1 U	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	3.4 U	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	0.35 U	0.35 U	0.35 U	0.35 U
1,2,4-TRICHLOROBENZENE	NA	4.4 J	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	5.9 U	NA	NA	NA	NA
1,2-DIBROMOETHANE	NA	2.9 U	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	3.3 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	NA	3.8 U	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	3.8 U	NA	NA	NA	NA
1,3,5-TRICHLOROBENZENE	NA	NA	0.33 U	0.33 U	0.33 U	0.33 U
1,3-DICHLOROBENZENE	NA	4 U	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	NA	2.9 U	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	NA	13 U	NA	NA	NA	NA
2-HEXANONE	NA	15 U	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	8.9 U	NA	NA	NA	NA
ACETONE	NA	22 U	NA	NA	NA	NA
BENZENE	NA	3.5 U	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	3.8 U	NA	NA	NA	NA
BROMOFORM	NA	5.4 U	NA	NA	NA	NA
BROMOMETHANE	NA	5.3 U	NA	NA	NA	NA
CARBON DISULFIDE	NA	4.3 U	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	4.4 U	NA	NA	NA	NA
CHLOROBENZENE	NA	4 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	NA	3.1 U	NA	NA	NA	NA
CHLOROETHANE	NA	5.1 U	NA	NA	NA	NA
CHLOROFORM	NA	3.9 U	NA	NA	NA	NA
CHLOROMETHANE	NA	5.4 UJ	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	520	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	3.3 U	NA	NA	NA	NA
CYCLOHEXANE	NA	5.5 U	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	6.3 U	NA	NA	NA	NA
ETHYLBENZENE	NA	3.3 U	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	2.6 U	NA	NA	NA	NA
METHYL ACETATE	NA	18 U	NA	NA	NA	NA
METHYL CYCLOHEXANE	NA	5.6 U	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	3.4 U	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	33 U	NA	NA	NA	NA
STYRENE	NA	2.9 U	NA	NA	NA	NA
TETRACHLOROETHENE	NA	3.8 U	NA	NA	NA	NA
TOLUENE	NA	2.9 U	NA	NA	NA	NA
TOTAL XYLENES	NA	3 U	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	4 J	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	3.9 U	NA	NA	NA	NA
TRICHLOROETHENE	NA	150	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	6.3 U	NA	NA	NA	NA
VINYL CHLORIDE	NA	5.6 U	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW102B	MRC-MW102B	MRC-MW103A			MRC-MW103B
SAMPLE ID	MRC-MW102B-032817	MRC-MW102B-032917	MRC-MW103A-030907	MRC-MW103A-	MRC-MW103A-	MRC-MW103B-030907
SAMPLE DATE	20170328	20170329	20170309	20170309	20170309	20170309
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	3	NA	NA	NA	NA	NA
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	0.069 U	0.069 U	0.069 U	0.07 U
DICHLOROBIPHENYLS	NA	NA	0.0054 U	0.0054 U	0.0053 U	0.0054 U
HEPTACHLOROBIPHENYLS	NA	NA	0.03 U	0.030 U	0.029 U	0.03 U
HEXACHLOROBIPHENYLS	NA	NA	0.015 U	0.015 U	0.015 U	0.015 U
MONOCHLOROBIPHENYLS	NA	NA	0.0056 U	0.0056 U	0.0055 U	0.0056 U
NONACHLOROBIPHENYLS	NA	NA	0.049 U	0.049 U	0.048 U	0.049 U
OCTACHLOROBIPHENYLS	NA	NA	0.038 U	0.038 U	0.037 U	0.038 U
PENTACHLOROBIPHENYLS	NA	NA	0.014 U	0.014 U	0.014 U	0.014 U
TETRACHLOROBIPHENYLS	NA	NA	0.013 U	0.013 U	0.013 U	0.013 U
TRICHLOROBIPHENYLS	NA	NA	0.0064 U	0.0064 U	0.0064 U	0.0065 U
TOTAL HOMOLOGS	NA	NA	0	0	0	0
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW102B	MRC-MW102B	MRC-MW103A			MRC-MW103B
SAMPLE ID	MRC-MW102B-032817	MRC-MW102B-032917	MRC-MW103A-030907	MRC-MW103A-	MRC-MW103A-	MRC-MW103B-030907
SAMPLE DATE	20170328	20170329	20170309	20170309	20170309	20170309
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW104A	MRC-MW104B	MRC-MW106B/C			MRC-MW107B/C
SAMPLE ID	MRC-MW104A-032317	MRC-MW104B-032317	MRC-MW106B/C-20170330	MRC-MW106B/C-20170330	MRC-MW106B/C-20170330	MRC-MW107B/C-20170330
SAMPLE DATE	20170323	20170323				
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROETHANE	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	0.25 U	0.25 U	0.58 J	0.56	0.54 J	0.25 U
1,1-DICHLOROETHENE	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	1 UJ	1 UJ	1 U	1 U	1 U	1 U
2-HEXANONE	1.2 UJ	1.2 UJ	1.2 U	1.2 U	1.2 U	1.2 U
4-METHYL-2-PENTANONE	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	1.8 UJ	1.8 UJ	1.8 J	2.2	2.5 J	1.8 U
BENZENE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
BROMODICHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	0.43 UJ	0.43 UJ	0.43 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	0.42 UJ	0.42 UJ	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
CHLOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
CHLOROFORM	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
CHLOROMETHANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	0.3 U	0.3 U	0.34 J	0.33	0.31 J	0.3 U
CIS-1,3-DICHLOROPROPENE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
CYCLOHEXANE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
METHYL ACETATE	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
METHYL CYCLOHEXANE	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
METHYLENE CHLORIDE	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
STYRENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	0.29 U	0.29 U	0.37 J	0.33	0.29 J	0.29 U
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	0.33 U	0.33 U	0.33 U	0.25	0.33 J	0.33 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	0.45 U	0.45 U	5.3	5.3	5.2	0.45 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW104A	MRC-MW104B	MRC-MW106B/C			MRC-MW107B/C
SAMPLE ID	MRC-MW104A-032317	MRC-MW104B-032317	MRC-MW106B/C-20170330	MRC-MW106B/C-20170330	MRC-MW106B/C-20170330	MRC-MW107B/C-20170330
SAMPLE DATE	20170323	20170323				
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	NA	NA	NA	NA	NA	NA
PCBS (UG/L)						
DECACHLOROBIPHENYL	0.067 U	0.07 U	NA	NA	NA	NA
DICHLOROBIPHENYLS	0.0052 U	0.0054 U	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	0.029 U	0.03 U	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	0.014 U	0.015 U	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	0.0054 U	0.0056 U	NA	NA	NA	NA
NONACHLOROBIPHENYLS	0.047 U	0.049 U	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	0.036 U	0.038 U	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	0.013 U	0.014 U	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	0.012 U	0.013 U	NA	NA	NA	NA
TRICHLOROBIPHENYLS	0.0062 U	0.0065 U	NA	NA	NA	NA
TOTAL HOMOLOGS	0	0	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	1.7 U	1.7 U	1.7 U	0.77 U
ARSENIC	NA	NA	1.5 J	1.5	1.5 J	0.8 J
BARIUM	NA	NA	140	140	140	220
BERYLLIUM	NA	NA	0.4 U	0.4 U	0.4 U	0.4 U
CADMIUM	NA	NA	0.31 U	0.31 U	0.31 U	0.31 U
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	0.45 J	0.41	0.37 J	3.4
COBALT	NA	NA	26	27	27	19
COPPER	NA	NA	0.52 U	0.48 U	0.44 U	4.2
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	0.38 U	0.36 U	0.34 U	2.8
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	NA	NA	0.66 U	0.67 U	0.68 U	0.88 U
NICKEL	NA	NA	19	20	21	55
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	0.48 U	0.48 U	0.48 U	0.9 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	0.038 U	0.034 U	0.03 U	0.051 U
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	0.28 U	0.28 U	0.28 U	0.28 U
VANADIUM	NA	NA	0.54 U	0.54 U	0.54 U	4.5 U
ZINC	NA	NA	8.3 U	9.7 U	11 U	16000

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW104A	MRC-MW104B	MRC-MW106B/C			MRC-MW107B/C
SAMPLE ID	MRC-MW104A-032317	MRC-MW104B-032317	MRC-MW106B/C-	MRC-MW106B/C-	MRC-MW106B/C-	MRC-MW107B/C-
SAMPLE DATE	20170323	20170323	20170330	20170330	20170330	20170330
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW109A	MRC-MW109B	MRC-MW110A	MRC-MW110B	MRC-MW111A	MRC-MW111B
SAMPLE ID	MRC-MW109A-041417	MRC-MW109B-041317	MRC-MW110A-031617	MRC-MW110B-031617	MRC-MW111A-042017	MRC-MW111B-042017
SAMPLE DATE	20170414	20170413	20170316	20170316	20170420	20170420
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	0.23 U	0.46 U	0.23 UJ	0.46 UJ	0.23 U	2.9 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.64 U	0.32 UJ	0.64 U	0.32 U	4 U
1,1,2-TRICHLOROETHANE	0.34 U	0.68 U	0.34 U	0.68 U	0.34 U	4.3 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.82 U	0.41 U	0.82 U	0.41 U	5.1 U
1,1-DICHLOROETHANE	0.25 U	0.5 U	0.64 J	0.5 U	0.25 U	43
1,1-DICHLOROETHENE	0.79 J	0.54 U	1.1	0.54 U	0.27 U	170
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.27 U	0.54 U	0.27 U	0.54 U	0.27 U	3.4 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.94 U	0.47 U	0.94 U	0.47 U	5.9 U
1,2-DIBROMOETHANE	0.23 U	0.46 U	0.23 U	0.46 U	0.23 U	2.9 U
1,2-DICHLOROBENZENE	0.26 U	0.52 U	0.26 U	0.52 U	0.26 U	3.3 U
1,2-DICHLOROETHANE	0.3 U	0.6 U	0.3 U	0.6 U	0.3 U	3.8 U
1,2-DICHLOROPROPANE	0.3 U	0.6 U	0.3 U	0.6 U	0.3 U	3.8 U
1,3,5-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.32 U	0.64 U	0.32 U	0.64 U	0.32 U	4 U
1,4-DICHLOROBENZENE	0.23 U	0.46 U	0.23 U	0.46 U	0.23 U	2.9 U
2-BUTANONE	1 U	2 U	1 U	2 U	1 U	13 U
2-HEXANONE	1.2 U	2.5 U	1.2 U	2.5 U	1.2 U	15 U
4-METHYL-2-PENTANONE	0.71 U	1.4 U	0.71 U	1.4 U	0.71 U	8.9 U
ACETONE	4.4 J	3.5 U	1.8 U	9.7 J	1.8 U	22 U
BENZENE	0.28 U	34	1.5	42	0.28 U	3.5 U
BROMODICHLOROMETHANE	0.3 U	0.6 U	0.3 U	0.6 U	0.3 U	3.8 U
BROMOFORM	0.43 U	0.86 U	0.43 UJ	0.86 UJ	0.43 U	5.4 U
BROMOMETHANE	0.42 U	0.84 U	0.42 U	0.84 UJ	0.42 U	5.3 U
CARBON DISULFIDE	0.34 U	0.68 U	0.34 U	0.68 U	0.34 U	4.3 U
CARBON TETRACHLORIDE	0.35 U	0.7 U	0.35 UJ	0.7 UJ	0.35 U	4.4 U
CHLOROBENZENE	0.32 U	0.64 U	0.32 U	0.64 U	0.32 U	4 U
CHLORODIBROMOMETHANE	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	3.1 U
CHLOROETHANE	0.41 U	0.82 U	0.41 UJ	0.82 UJ	0.41 U	5.1 U
CHLOROFORM	0.31 U	0.62 U	0.31 U	0.69 J	0.31 U	3.9 U
CHLOROMETHANE	0.43 U	0.86 U	0.43 U	0.86 U	0.43 U	5.4 U
CIS-1,2-DICHLOROETHENE	55	74	11	6.4	0.3 U	41
CIS-1,3-DICHLOROPROPENE	0.26 U	0.52 U	0.26 UJ	0.52 U	0.26 U	3.3 U
CYCLOHEXANE	0.44 U	0.88 U	0.44 U	0.88 U	0.44 U	5.5 U
DICHLORODIFLUOROMETHANE	0.5 U	1 U	0.5 UJ	1 U	0.5 U	6.3 U
ETHYLBENZENE	0.26 U	0.52 U	0.26 U	1.6 J	0.26 U	3.3 U
ISOPROPYLBENZENE	0.21 U	1.2 J	0.21 U	0.42 UJ	0.21 U	2.6 U
METHYL ACETATE	1.4 U	2.9 U	1.4 U	2.9 U	1.4 U	18 U
METHYL CYCLOHEXANE	0.45 U	0.9 U	0.45 U	0.9 U	0.45 U	5.6 U
METHYL TERT-BUTYL ETHER	0.27 U	4.1	0.27 U	4.7	0.27 U	3.4 U
METHYLENE CHLORIDE	0.53 U	1.1 U	0.53 U	1.1 U	0.53 U	6.6 U
STYRENE	0.23 U	0.46 U	0.23 U	0.46 U	0.23 U	2.9 U
TETRACHLOROETHENE	0.3 U	0.6 U	0.3 U	0.6 U	0.3 U	3.8 U
TOLUENE	0.27 J	0.46 U	0.23 U	0.46 U	0.23 U	2.9 U
TOTAL XYLENES	0.24 U	2.3 J	0.24 U	4.2	0.24 U	3 U
TRANS-1,2-DICHLOROETHENE	1.4	6.6	0.45 J	0.58 U	0.29 U	3.6 U
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.62 U	0.31 U	0.62 U	0.31 U	3.9 U
TRICHLOROETHENE	0.33 U	25	34	39	0.33 U	410
TRICHLOROFLUOROMETHANE	0.5 U	1 U	0.5 UJ	1 UJ	0.5 U	6.3 U
VINYL CHLORIDE	20	4.8	0.69 J	0.9 U	0.45 U	5.6 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW109A	MRC-MW109B	MRC-MW110A	MRC-MW110B	MRC-MW111A	MRC-MW111B
SAMPLE ID	MRC-MW109A-041417	MRC-MW109B-041317	MRC-MW110A-031617	MRC-MW110B-031617	MRC-MW111A-042017	MRC-MW111B-042017
SAMPLE DATE	20170414	20170413	20170316	20170316	20170420	20170420
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	NA	NA	5.8	5.8	0.64	170
PCBS (UG/L)						
DECACHLOROBIPHENYL	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	NA	NA	NA	NA	NA	NA
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA
BARIUM	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA
COBALT	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA
MOLYBDENUM	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA
VANADIUM	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW109A	MRC-MW109B	MRC-MW110A	MRC-MW110B	MRC-MW111A	MRC-MW111B
SAMPLE ID	MRC-MW109A-041417	MRC-MW109B-041317	MRC-MW110A-031617	MRC-MW110B-031617	MRC-MW111A-042017	MRC-MW111B-042017
SAMPLE DATE	20170414	20170413	20170316	20170316	20170420	20170420
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW113A	MRC-MW114A	MRC-MW115A	MRC-MW116A	MRC-SEMW-7I	MRC-SEMW-8S
SAMPLE ID	MRC-MW113A-032917	MRC-MW114A-032917	MRC-MW115A-031717	MRC-MW116A-031717	MRC-SEMW-7I-	MRC-SEMW-8S-
SAMPLE DATE	20170329	20170329	20170317	20170317	20170327	20170327
VOLATILES (UG/L)						
1,1,1-TRICHLOROETHANE	4.6 U	2.3 U	0.23 U	0.23 U	230 U	460 U
1,1,2,2-TETRACHLOROETHANE	6.4 U	3.2 U	0.32 U	0.32 U	320 U	640 U
1,1,2-TRICHLOROETHANE	6.8 U	3.4 U	0.34 U	0.34 U	340 U	680 U
1,1,2-TRICHLOROTRIFLUOROETHANE	8.2 UJ	4.1 UJ	0.41 U	0.41 U	410 U	820 U
1,1-DICHLOROETHANE	5 U	2.5 U	0.25 U	0.25 U	250 U	500 U
1,1-DICHLOROETHENE	5.4 U	2.7 U	0.27 U	0.27 U	270 U	540 U
1,2,3-TRICHLOROBENZENE	62 J	92 J	NA	NA	350 U	700 U
1,2,4-TRICHLOROBENZENE	230 J	320 J	0.27 UJ	0.27 U	270 U	540 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	9.4 U	4.7 U	0.47 U	0.47 U	470 U	940 U
1,2-DIBROMOETHANE	4.6 U	2.3 U	0.23 U	0.23 U	230 U	460 U
1,2-DICHLOROBENZENE	17 J	18	0.26 U	0.26 U	260 U	520 U
1,2-DICHLOROETHANE	6 U	400	0.3 U	0.3 U	300 U	600 U
1,2-DICHLOROPROPANE	6 U	4.2 J	0.3 U	0.3 U	300 U	600 U
1,3,5-TRICHLOROBENZENE	6.6 U	3.3 U	NA	NA	330 U	660 U
1,3-DICHLOROBENZENE	32	7.2 J	0.32 U	0.32 U	320 U	640 U
1,4-DICHLOROBENZENE	50	51	0.23 U	0.23 U	230 U	460 U
2-BUTANONE	20 U	10 U	1 U	1 U	1000 UJ	2000 UJ
2-HEXANONE	25 U	12 U	1.2 UJ	1.2 U	1200 U	2500 U
4-METHYL-2-PENTANONE	14 U	7.1 U	0.71 U	0.71 U	710 U	1400 U
ACETONE	35 U	18 U	1.8 U	1.8 U	1800 U	3500 U
BENZENE	5.6 U	2.8 U	0.28 U	0.28 U	280 U	560 U
BROMODICHLOROMETHANE	6 U	3 U	0.3 U	0.3 U	300 U	600 U
BROMOFORM	8.6 U	4.3 U	0.43 U	0.43 U	430 U	860 U
BROMOMETHANE	8.4 U	4.2 U	0.42 U	0.42 U	420 U	840 U
CARBON DISULFIDE	6.8 U	3.4 U	0.34 U	0.34 U	340 U	680 U
CARBON TETRACHLORIDE	7 U	3.5 U	0.35 U	0.35 U	350 U	700 U
CHLOROBENZENE	54	120	0.32 U	0.32 U	320 U	640 U
CHLORODIBROMOMETHANE	5 U	2.5 U	0.25 U	0.25 U	250 U	500 U
CHLOROETHANE	8.2 U	4.1 U	0.41 U	0.41 U	410 U	820 U
CHLOROFORM	6.2 U	3.1 U	0.31 U	0.31 U	310 U	620 U
CHLOROMETHANE	8.6 UJ	4.3 UJ	0.43 U	0.43 U	430 U	860 U
CIS-1,2-DICHLOROETHENE	6 U	3 U	0.3 U	0.3 U	300 U	600 U
CIS-1,3-DICHLOROPROPENE	5.2 U	2.6 U	0.26 U	0.26 U	260 U	520 U
CYCLOHEXANE	8.8 U	4.4 U	0.44 U	0.44 U	440 U	880 U
DICHLORODIFLUOROMETHANE	10 U	5 U	0.5 U	0.5 U	500 UJ	1000 UJ
ETHYLBENZENE	5.2 U	2.6 U	0.26 U	0.26 U	260 U	520 U
ISOPROPYLBENZENE	4.2 U	2.1 U	0.21 U	0.21 U	210 U	420 U
METHYL ACETATE	29 U	14 U	1.4 U	1.4 U	1400 U	2900 U
METHYL CYCLOHEXANE	9 U	4.5 U	0.45 UJ	0.45 U	450 U	900 U
METHYL TERT-BUTYL ETHER	5.4 U	2.7 U	0.27 U	0.27 U	270 U	540 U
METHYLENE CHLORIDE	53 U	26 U	0.53 U	0.53 U	530 U	1100 U
STYRENE	4.6 U	2.3 U	0.23 U	0.23 U	230 U	460 U
TETRACHLOROETHENE	52	3 U	0.3 U	0.3 U	300 U	600 U
TOLUENE	4.6 U	2.3 U	0.23 U	0.23 U	230 U	460 U
TOTAL XYLENES	4.8 U	2.4 U	0.24 U	0.24 U	240 U	480 U
TRANS-1,2-DICHLOROETHENE	5.8 U	2.9 U	0.29 U	0.29 U	290 U	580 U
TRANS-1,3-DICHLOROPROPENE	6.2 U	3.1 U	0.31 U	0.31 U	310 U	620 U
TRICHLOROETHENE	25	6.1 J	0.34 J	0.33 U	26000	61000
TRICHLOROFLUOROMETHANE	810	180	0.5 U	0.5 U	500 U	1000 U
VINYL CHLORIDE	9 U	4.5 U	0.45 U	0.45 U	450 U	900 U

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW113A	MRC-MW114A	MRC-MW115A	MRC-MW116A	MRC-SEMW-7I	MRC-SEMW-8S
SAMPLE ID	MRC-MW113A-032917	MRC-MW114A-032917	MRC-MW115A-031717	MRC-MW116A-031717	MRC-SEMW-7I-	MRC-SEMW-8S-
SAMPLE DATE	20170329	20170329	20170317	20170317	20170327	20170327
VOLATILE GASES (UG/L)						
ETHANE	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)						
1,4-DIOXANE	6.9	0.5	NA	NA	0.24	0.19 J
PCBS (UG/L)						
DECACHLOROBIPHENYL	0.073 U	0.067 U	NA	NA	0.072 U	0.067 U
DICHLOROBIPHENYLS	0.0056 U	0.0052 U	NA	NA	0.0055 U	0.0052 U
HEPTACHLOROBIPHENYLS	0.031 U	0.029 U	NA	NA	0.031 U	0.029 U
HEXACHLOROBIPHENYLS	0.016 U	0.014 U	NA	NA	0.015 U	0.014 U
MONOCHLOROBIPHENYLS	0.0058 U	0.01 J	NA	NA	0.0058 U	0.0054 U
NONACHLOROBIPHENYLS	0.051 UJ	0.047 UJ	NA	NA	0.05 U	0.047 U
OCTACHLOROBIPHENYLS	0.039 U	0.036 U	NA	NA	0.039 U	0.036 U
PENTACHLOROBIPHENYLS	0.015 U	0.013 U	NA	NA	0.014 U	0.013 U
TETRACHLOROBIPHENYLS	0.014 U	0.012 U	NA	NA	0.013 U	0.012 U
TRICHLOROBIPHENYLS	0.0068 U	0.0062 U	NA	NA	0.0067 U	0.0062 U
TOTAL HOMOLOGS	0	0.01	NA	NA	0	0
METALS (UG/L)						
ANTIMONY	NA	NA	NA	NA	0.27 U	0.27 U
ARSENIC	NA	NA	NA	NA	0.35 UJ	5.8 J
BARIUM	NA	NA	NA	NA	70 J	49 J
BERYLLIUM	NA	NA	NA	NA	4 J	15 J
CADMIUM	NA	NA	NA	NA	0.31 UJ	0.56 J
CALCIUM	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	0.58 J	1.4 J
COBALT	NA	NA	NA	NA	45 J	210 J
COPPER	NA	NA	NA	NA	13	25 J
IRON	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	0.25 U	0.26 U
MAGNESIUM	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	0.13 U	0.13 U
MOLYBDENUM	NA	NA	NA	NA	0.51 U	0.51 UJ
NICKEL	NA	NA	NA	NA	75 J	320 J
POTASSIUM	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	0.53 U	22 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	0.03 U	0.03 UJ
SODIUM	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	0.28 U	0.28 U
VANADIUM	NA	NA	NA	NA	0.54 UJ	0.54 UJ
ZINC	NA	NA	NA	NA	99	420 J

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION	MRC-MW113A	MRC-MW114A	MRC-MW115A	MRC-MW116A	MRC-SEMW-7I	MRC-SEMW-8S
SAMPLE ID	MRC-MW113A-032917	MRC-MW114A-032917	MRC-MW115A-031717	MRC-MW116A-031717	MRC-SEMW-7I-	MRC-SEMW-8S-
SAMPLE DATE	20170329	20170329	20170317	20170317	20170327	20170327
MISCELLANEOUS PARAMETERS (MG/L)						
ALKALINITY	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)						
HEXAVALENT CHROMIUM	NA	NA	NA	NA	0.088 J	0.047 UJ

Table E-1
Chemical Results for Groundwater Samples-2017
Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MRC-SEMW-8I MRC-SEMW-8I- 20170327	MRC-SWMW-1I MRC-SWMW-1I- 20170410	MRC-SWMW-2I MRC-SWMW-2I- 20170410	MRC-SWMW-3I MRC-SWMW-3I- 20170410	MRC-SWMW-4S MRC-SWMW-4S- 20170411	MRC-SWMW-4I MRC-SWMW-4I- 20170411	MRC-SWMW-5I MRC-SWMW-5I- 20170410
VOLATILES (UG/L)							
1,1,1-TRICHLOROETHANE	23 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	32 U	0.32 U	0.32 U	3.2 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROETHANE	34 U	0.34 U	0.34 U	3.4 U	0.34 U	0.34 U	0.34 U
1,1,2-TRICHLOROTRIFLUOROETHANE	41 U	0.41 U	0.41 U	4.1 U	0.41 UJ	0.41 UJ	0.41 U
1,1-DICHLOROETHANE	25 U	4.9	2.8	6.4 J	4.5	2.5	3.1
1,1-DICHLOROETHENE	27 U	0.27 U	0.27 U	53	0.65 J	0.31 J	0.27 U
1,2,3-TRICHLOROBENZENE	35 U	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	27 U	0.27 U	0.27 U	2.7 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	47 U	0.47 U	0.47 U	4.7 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	23 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	26 U	0.26 U	0.26 U	2.6 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	30 U	0.38 J	0.66 J	3 U	0.36 J	1.3	0.3 U
1,2-DICHLOROPROPANE	30 U	0.3 U	0.3 U	3 U	0.3 U	0.3 U	0.3 U
1,3,5-TRICHLOROBENZENE	33 U	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	32 U	0.32 U	0.32 U	3.2 U	0.32 U	0.32 U	0.32 U
1,4-DICHLOROBENZENE	23 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	0.23 U
2-BUTANONE	100 UJ	1 U	1 U	10 U	1 U	4.3 J	29
2-HEXANONE	120 U	1.2 U	1.2 U	12 U	1.2 U	1.2 U	1.2 U
4-METHYL-2-PENTANONE	71 U	0.71 U	0.71 U	7.1 U	0.71 U	1.6 J	0.71 U
ACETONE	180 U	1.8 U	1.8 U	18 U	1.8 U	1.8 U	1.8 U
BENZENE	28 U	2.2	9.2	7 J	1	2.7	4.1
BROMODICHLOROMETHANE	30 U	0.3 U	0.3 U	3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	43 U	0.43 U	0.43 U	4.3 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	42 U	0.42 U	0.42 U	4.2 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	34 U	0.34 UJ	0.34 UJ	3.4 UJ	0.34 UJ	0.34 UJ	0.34 UJ
CARBON TETRACHLORIDE	35 U	0.35 U	0.35 U	3.5 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	32 U	0.32 U	0.32 U	3.2 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	25 U	0.25 U	0.25 U	2.5 U	0.25 U	0.25 U	0.25 U
CHLOROETHANE	41 U	0.69 J	14	4.1 U	0.41 U	13	5.8
CHLOROFORM	31 U	0.31 U	0.31 U	3.1 U	0.31 U	0.31 U	0.31 U
CHLOROMETHANE	43 U	0.43 U	0.43 U	4.3 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	110	0.3 U	0.44 J	260	2.3	3.3	0.3 U
CIS-1,3-DICHLOROPROPENE	26 U	0.26 U	0.26 U	2.6 U	0.26 U	0.26 U	0.26 U
CYCLOHEXANE	44 U	0.44 U	0.44 U	4.4 U	0.44 U	0.44 U	0.44 U
DICHLORODIFLUOROMETHANE	50 UJ	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	26 U	0.26 U	0.26 U	2.6 U	0.26 U	0.26 U	0.26 U
ISOPROPYLBENZENE	21 U	0.21 U	0.29 J	2.1 U	0.21 U	0.21 U	0.21 U
METHYL ACETATE	140 U	1.4 U	1.4 U	14 U	1.4 U	1.4 U	1.4 U
METHYL CYCLOHEXANE	45 U	0.45 U	0.45 U	4.5 U	0.45 U	0.45 U	0.45 U
METHYL TERT-BUTYL ETHER	27 U	0.27 U	0.27 U	2.7 U	0.27 U	0.27 U	0.27 U
METHYLENE CHLORIDE	53 U	0.53 U	0.53 U	17 U	0.53 U	0.53 U	0.53 U
STYRENE	23 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	0.23 U
TETRACHLOROETHENE	30 U	0.3 U	0.3 U	3 U	0.3 U	0.3 U	0.3 U
TOLUENE	23 U	0.23 U	0.23 U	2.3 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	24 U	0.24 U	0.24 U	2.4 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	29 U	0.38 J	0.29 U	2.9 U	0.92 J	0.29 J	0.49 J
TRANS-1,3-DICHLOROPROPENE	31 U	0.31 U	0.31 U	3.1 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	3600	0.83 J	1	5.1 J	2.1	0.44 J	1
TRICHLOROFLUOROMETHANE	50 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	45 U	2.8	3.7	12	1.4	2.5	0.45 U

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Lockheed Martin Middle River Complex, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MRC-SEMW-8I MRC-SEMW-8I- 20170327	MRC-SWMW-1I MRC-SWMW-1I- 20170410	MRC-SWMW-2I MRC-SWMW-2I- 20170410	MRC-SWMW-3I MRC-SWMW-3I- 20170410	MRC-SWMW-4S MRC-SWMW-4S- 20170411	MRC-SWMW-4I MRC-SWMW-4I- 20170411	MRC-SWMW-5I MRC-SWMW-5I- 20170410
VOLATILE GASES (UG/L)							
ETHANE	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA
SEMIVOLATILES (UG/L)							
1,4-DIOXANE	0.4	NA	NA	NA	NA	NA	NA
PCBS (UG/L)							
DECACHLOROBIPHENYL	0.073 U	NA	NA	NA	NA	NA	NA
DICHLOROBIPHENYLS	0.0057 U	NA	NA	NA	NA	NA	NA
HEPTACHLOROBIPHENYLS	0.031 U	NA	NA	NA	NA	NA	NA
HEXACHLOROBIPHENYLS	0.016 U	NA	NA	NA	NA	NA	NA
MONOCHLOROBIPHENYLS	0.0059 U	NA	NA	NA	NA	NA	NA
NONACHLOROBIPHENYLS	0.051 U	NA	NA	NA	NA	NA	NA
OCTACHLOROBIPHENYLS	0.04 U	NA	NA	NA	NA	NA	NA
PENTACHLOROBIPHENYLS	0.015 U	NA	NA	NA	NA	NA	NA
TETRACHLOROBIPHENYLS	0.014 U	NA	NA	NA	NA	NA	NA
TRICHLOROBIPHENYLS	0.0068 U	NA	NA	NA	NA	NA	NA
TOTAL HOMOLOGS	0	NA	NA	NA	NA	NA	NA
METALS (UG/L)							
ANTIMONY	0.27 U	NA	NA	NA	NA	NA	NA
ARSENIC	0.38 J	NA	NA	NA	NA	NA	NA
BARIUM	120 J	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.4 UJ	NA	NA	NA	NA	NA	NA
CADMIUM	0.31 UJ	NA	NA	NA	NA	NA	NA
CALCIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	0.52 J	NA	NA	NA	NA	NA	NA
COBALT	6.8 J	NA	NA	NA	NA	NA	NA
COPPER	0.49 U	NA	NA	NA	NA	NA	NA
IRON	NA	NA	NA	NA	NA	NA	NA
LEAD	0.19 U	NA	NA	NA	NA	NA	NA
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA	NA	NA	NA
MERCURY	0.13 U	NA	NA	NA	NA	NA	NA
MOLYBDENUM	2.4 U	NA	NA	NA	NA	NA	NA
NICKEL	1.9 J	NA	NA	NA	NA	NA	NA
POTASSIUM	NA	NA	NA	NA	NA	NA	NA
SELENIUM	0.48 UJ	NA	NA	NA	NA	NA	NA
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA
SILVER	0.03 U	NA	NA	NA	NA	NA	NA
SODIUM	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.28 U	NA	NA	NA	NA	NA	NA
VANADIUM	0.54 UJ	NA	NA	NA	NA	NA	NA
ZINC	6.2 U	NA	NA	NA	NA	NA	NA

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MISCELLANEOUS PARAMETERS (MG/L)							
ALKALINITY	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA
AMMONIA-N	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA
ORTHOPHOSPHATE-P	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (UG/L)							
HEXAVALENT CHROMIUM	0.047 UJ	NA	NA	NA	NA	NA	NA

J - chemical detected, concentration is estimated above the method detection limit but below the practical quantitation limit.
MG/L - milligrams per liter
NA - not analyzed
U - not detected at the concentration left of the letter
UG/L - micrograms per liter
UJ - analyte not detected, quantitation limit or detection limit may be inacurate or imprecise.