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September 20, 2017 **VIA PRIVATE CARRIER**

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

Subject: Transmittal of the Technical Memorandum: April 2017 Surface-Water Sampling Results for Dark Head Cove and Cow Pen Creek
Lockheed Martin Corporation; Middle River Complex
2323 Eastern Boulevard, Middle River, Baltimore County, Maryland

Dear Mr. Carroll:

For your review please find enclosed two hard copies with a CD of the above-referenced document. This document presents the analytical results for surface water samples collected in April 2016 for water bodies adjacent to the Middle River Complex in Middle River, Maryland.

If possible, we respectfully request to receive MDE's comments by November 8, 2017.

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

Sincerely,

Thomas D. Blackman signed for

Lynnette Drake
Remediation Analyst, Environmental Remediation

cc: (via email without enclosure)
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Technical Memorandum: April 2017 Surface-Water Sampling Results for Dark Head Cove and Cow Pen Creek Middle River Complex 2323 Eastern Boulevard Middle River, Maryland

Prepared for:

Lockheed Martin Corporation

Prepared by:

Tetra Tech, Inc.

September 2017

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ACRONYMS

AWQC	ambient water quality criteria
BTAG	Biological Technical Advisory Group
ºC	degrees Celsius
COC	chain of custody
COMAR	*Code of Maryland Regulations*
DO	dissolved oxygen
ESA	environmental site assessment
GIS	geographic information system
HHRA	human health risk assessment
IDW	investigation-derived waste
Lockheed Martin	Lockheed Martin Corporation
MDE	Maryland Department of the Environment
µg/L	microgram(s) per liter
mg/L	milligram(s) per liter
MRC	Middle River Complex
mS/cm	milliSiemen(s) per centimeter
mv	millivolt(s)
MW	monitoring well
NRWQC	national recommended water quality criteria
NTU	nephelometric turbidity unit(s)
ORP	oxidation-reduction potential
PCB	polychlorinated biphenyl
PDF	portable document format
pH	a measure of hydrogen-ion content indicating relative acidity or alkalinity
PM	project manager
REC	recognized environmental condition
SC	specific conductance
S.U.	standard unit(s)
SW	surface water
TCE	trichloroethene
Tetra Tech	Tetra Tech, Inc.
TSCA	Toxic Substances Control Act
USEPA	United States Environmental Protection Agency
VCP	Voluntary Cleanup Program
VOC	volatile organic compound

Section 1
Introduction

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared this technical memorandum presenting the analytical results for surface water samples collected adjacent to the Middle River Complex (MRC) in Middle River, Maryland on April 10 and 11, 2017 (see Figure 1-1). This technical memorandum presents results from surface water samples collected along five transects in Dark Head Cove (at Outfalls 005, 006, 007, 008, and 009), as well as from two locations in Cow Pen Creek near the southwestern trichloroethene (TCE) groundwater plume, which includes 1,4-dioxane. Additional surface water samples were collected west of Outfall 008, due to an earlier discovery of a trichloroethene plume in Block F moving toward Dark Head Cove east of Outfall 008.

Before 2016, surface water had been sampled annually. In 2017, sampling frequency increased to three times per year (April, June, and September) to provide supporting data during implementation of the groundwater remedy that volatile organic compounds (VOCs) are not reaching Dark Head Cove and Cow Pen Creek at concentrations of concern. Future planned surface water sampling includes June 2017 and September 2017. Thereafter, sampling schedules will be evaluated and based on sampling results and progress toward groundwater remediation. Additional objectives were to determine possible concentrations of polychlorinated biphenyls (PCBs) in surface water subsequent to a sediment-removal action begun by Lockheed Martin Corporation in early 2015 and completed in Dark Head Cove in 2016, and to determine 1,4-dioxane concentrations in Cow Pen Creek surface water near the southwestern trichloroethene groundwater plume, which includes 1,4-dioxane.

Additional surface-water locations were sampled in April 2017 to delineate the extent of seepage from the plume west of Outfalls 006 and 008. Volatile organic compounds in groundwater at the Middle River Complex could be introduced to surface water by groundwater seepage or by groundwater infiltration into storm drains that discharge to surface water through outfalls. Surface water quality can also be affected by constituents in creek-bottom sediment. Therefore, two of the

Dark Head Cove transects (Outfalls 006 and 008) are downgradient of the southeastern trichloroethene groundwater plume, to evaluate if groundwater infiltration is significant in the tributary piping.

This technical memorandum is organized as follows:

Section 2—Site Background: Briefly describes the site and where detailed background information and reports of previous investigations can be found.

Section 3—Investigation Approach and Methodology: Presents the technical approach to surface water sampling and describes the field methodology employed.

Section 4—Results: Presents the field program's investigation results.

Section 5—Summary: Summarizes the investigation approach and findings.

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

Aerial photograph provided by ESRI's ArcGIS Online World Imagery map service (© 2013 ESRI and its data suppliers).

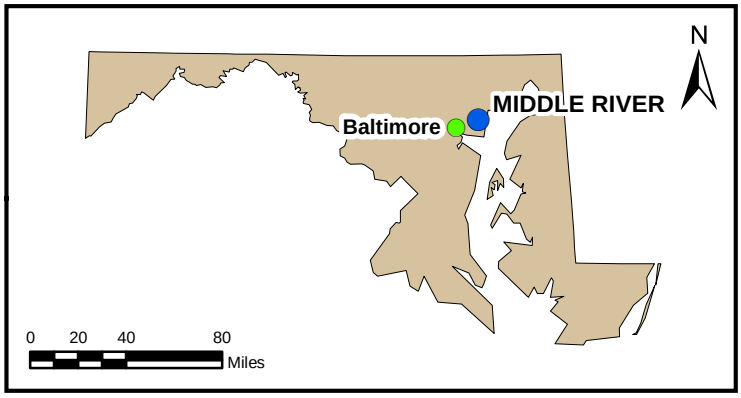

FIGURE 1-1

MIDDLE RIVER COMPLEX LOCATION MAP

Lockheed Martin Middle River Complex
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
09/18/15	JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_sitemap_may2015.mxd)
09/18/15 -- JEE

Section 2
Site Background

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

Numerous environmental investigations have been conducted at the Lockheed Martin MRC. These include underground storage-tank closures and abandonments, soil excavations, Phase I environmental site assessments (ESAs), and Phase II ESAs. A 2003 facility-wide Phase I ESA at the Lockheed Martin MRC identified 13 recognized environmental conditions (RECs), associated primarily with then-current site conditions (Earth Tech, 2003). Subsequent review of historical site activities has identified another 18 RECs (Tetra Tech, 2004). Many RECs are in the southern portion of the facility along the waterfront.

Soil and groundwater sampling have identified contamination in these environmental media underlying the facility. Studies of soil in Tax Block E and site-wide groundwater are ongoing (Tetra Tech, 2012a). The MRC remediation was previously entered into the Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP). Withdrawal from the VCP began in September 2013. Remediation of the MRC is now being conducted pursuant to an "Administrative Consent Order" signed December 2015, whereby work is performed under the MDE Controlled Hazardous Substances framework to allow both on- and off-site issues to be addressed under the same regulatory program.

Sampling of surface water and sediment adjacent to the MRC's southern and western property boundaries first began in March 2005. Subsequent samples were collected in 2005, and each year from 2010–2016, to characterize surface water and sediment, support a human health and

ecological risk assessment, subsequent design development of the sediment remedy, and to support storm-drain investigations. The current annual sampling program seeks to determine the extent to which constituents in groundwater and soil at the MRC have been transported to surface water, and if constituents in sediments might be dissolving into surface water. The sampling program (April, June and September) is also designed to provide chemical data during times of greatest use of the water body.

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

BLOCK 'A'
BLOCK 'A'
BLOCK 'B'
BLOCK 'D'
BLOCK 'D' PANHANDLE
BLOCK 'E'
BLOCK 'F'
BLOCK 'G'
BLOCK 'H'
BLOCK 'I'
PARKING LOT NO. 1
PARKING LOT NO. 2
PARKING LOT NO. 3
PARKING LOT NO. 4
PARKING LOT NO. 5
ATHLETIC FIELD
BUILDING A
BUILDING B
BUILDING C
BUILDING E
ENGINEERING RESEARCH BUILDING
PROGRAM BUILDING
VLS BUILDING
FORMER BUILDING D
ASHLEY FURNITURE
MIDDLE RIVER POST OFFICE
JOHNSON AND TOWERS
MARTIN STATE AIRPORT
TILLEY CHEMICAL COMPANY
TOTAL INDUSTRIAL GROUP
WATERFRONT LOT
DARKHEAD COVE
COW PEN CREEK
Eastern Blvd
Martin Blvd
Wilson Point Rd
Chesapeake Park Plz
Glenn Martin Lagoon Rd
Hawthorne Rd
Esri, HER

FIGURE 2-1

SITE LAYOUT AND TAX BLOCKS
MIDDLE RIVER COMPLEX

LEGEND

TAX BLOCK

Lockheed Martin Middle River Complex
Middle River, Maryland

0 225 450 Feet

N

DATE MODIFIED: 10/04/16

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_tax_blocks_jul2016_aerial.mxd)
10/04/16 -- JEE

Section 3
Investigation Approach and Methodology

3.1 SURFACE WATER SAMPLING

The 2017 surface water sampling described herein is intended to provide additional and updated surface-water-quality data for Dark Head Cove and Cow Pen Creek. Specifically, the current goals are to determine whether:

- volatile organic compounds (VOCs) detected in groundwater and site soil are reaching Dark Head Cove and Cow Pen Creek through groundwater seepage, infiltration, or transport through storm drains at concentrations in excess of risk-based screening levels
- 1,4-dioxane detected in groundwater and soil is reaching Cow Pen Creek through groundwater seepage, infiltration or transport through storm drains at concentrations in excess of risk-based screening levels
- polychlorinated biphenyls (PCBs) detected in Block E soil are reaching Dark Head Cove through groundwater seepage, infiltration, or transport through storm drains, and/or whether PCBs in surface water are present due to contaminants in sediment and, if so, at concentrations in excess of risk-based screening levels

Concentrations of PCBs, VOCs, and 1,4-dioxane in surface water were determined through laboratory analyses of the environmental samples. These compounds are in groundwater and soil at the Middle River Complex (MRC), and might migrate into adjacent surface bodies via groundwater and overland surface water flow.

Thirty-one surface water samples and two duplicate samples were collected from Dark Head Cove and Cow Pen Creek on April 10 and 11, 2017 (Figure 3-1). Twenty-nine were collected in Dark Head Cove and two were collected in Cow Pen Creek. All samples were analyzed for VOCs (the primary contaminants of concern in MRC groundwater). Samples collected from Dark Head Cove were also analyzed for PCBs, whereas samples from Cow Pen Creek were also analyzed for 1,4-dioxane. Sampling methods were consistent with the *2016–2017 Groundwater and Surface*

Water Monitoring Work Plan (Tetra Tech, Inc. [Tetra Tech], 2015), as amended (Tetra Tech, 2016a, 2016b, 2016c, and 2017).

3.1.1 Surface Water Sampling and Analyses

Surface water samples were collected in Dark Head Cove along transects at Outfalls 005, 006, 007, 008, and 009 (Figure 3-1). Two samples were collected along each transect: one was collected 10-feet from shore ("A" sample) and a second was collected 50-feet from shore ("B" sample). For one transect collected west of Outfall 008, the two samples were collected farther from shore. The first sample was collected 50-feet ("B" sample) from shore and the second was collected 100-feet from shore ("C" sample). At Outfall 005 (which has two outlets), one sample was collected at each outlet, 10-feet from shore ("A1" and "A2" samples), and a single sample was collected 50-feet from shore, approximately midway between the two outlets ("B" sample). All samples were collected approximately one foot below the water surface, unless otherwise indicated (see below).

Sixteen additional surface water samples (SW12B-S/D, SW12C-S/D, SW13A-S/D, SW13B-S/D, SW14A-S/D, SW14B-S/D, SW15A-S/D, SW16A-S/D) were collected west of Outfall 008, with two samples collected at each sampling location: a shallow ("S"), and a deep ("D") sample. The "S" samples were collected approximately one foot below the water surface, whereas the "D" samples were collected approximately one foot above the water/sediment interface. Two additional samples (8A1 and 8A2) were collected approximately one and five feet outward (toward the center of the creek) from the Outfall 008 corrugated pipe. Each of these latter samples was collected one foot below the water surface.

Surface water samples from Cow Pen Creek were collected near the western trichloroethene (TCE) plume. Two samples were collected along the approximate centerline of the creek, one upstream and one downstream of the estimated boundaries of the southwestern TCE plume. Tables 3-1 and 3-2 summarize (by surface water sampling location) the chemical analyses conducted for the 2017 monitoring program (Tetra Tech, 2015, 2016a, 2016b, 2016c, and 2017).

Surface water samples were collected as grab samples using direct-fill sampling techniques and a stainless-steel discrete-interval sampler. The sampler was lowered to approximately one foot below the water surface (or one foot above the water/sediment interface) and the check valve was disengaged until full; the sampler was then brought to the surface and the water was removed through the valve to fill laboratory-supplied containers. Laboratory-cleaned, hydrochloric-acid-

preserved, 40-milliliter (mL) sample vials were used for the VOC analysis; separate containers were used to collect samples for the 1,4-dioxane and PCB analyses. All equipment was cleaned after each sample had been collected. The discrete-interval sampler was cleaned after each use by rinsing with distilled water; no decontamination fluids other than distilled water were used, so collection and off-site disposal of rinse water generated during this sampling event was not necessary.

Samples collected on April 10–11, 2017 were analyzed at a fixed-base laboratory (TestAmerica of North Canton, Ohio) for VOCs via United States Environmental Protection Agency (USEPA) Method 8260C, for 1,4-dioxane via Method 522, and for PCBs via Method 680. One duplicate sample for each analyte was collected, and trip blanks were provided in each cooler containing VOC samples to ensure quality assurance/quality control. Water-quality parameters, including temperature, pH (a measure of hydrogen-ion content indicating relative acidity or alkalinity), specific conductance (SC), hardness, salinity, turbidity, dissolved oxygen (DO), color, and oxidation-reduction potential (ORP), were measured at all surface-water sampling locations at the time of sampling. The water depth at each sampling location was also recorded.

Tidal stages were recorded on April 10, 2017 before sampling began and after it ended, using the MRC Cow Pen Creek direct-read staff gauge. The staff gauge read 3.90 feet at 11:40 a.m. and 3.40 feet at 2:45 p.m. Tide data for the North Point station (south of Middle River, Maryland) reported low tide at 5:24 a.m., high tide at 10:54 a.m., and low tide at 6:00 p.m. Surface water samples were collected between 11:45 a.m. and 2:45 p.m., at the falling limb of the tidal cycle (Maryland Department of Natural Resources, 2017). All information was documented on surface-water sample forms (Appendix A) and in the master site logbook.

Surface-water sampling locations (horizontal locational coordinates) were surveyed using a handheld global positioning system receiver and recorded in the field logbook. Sampling locations were recorded in degrees, minutes, and seconds using geographical latitude and longitude coordinates, and have an accuracy of approximately 15 feet. Coordinates were converted to the Maryland State Plane North American Datum 1983 (feet) for use in the MRC geographical information system (GIS).

3.1.2 Documentation

A master site logbook was maintained as an overall record of field activities. Sample documentation includes completing a chain of custody (COC) form and matrix-specific sampling log sheets. A COC form is a standardized form to summarize and document pertinent sample information, such as sample identification and type, matrix, date and time of collection, preservation, requested analysis, and the times and dates of custody transfers. Sample custody procedures document sample acquisition and integrity. The COC form accompanies the data-validation report in Appendix B.

3.1.3 Sample Nomenclature and Handling

Surface water samples were identified with a unique sample-identification tag. Surface water samples were labeled with an "SW" prefix followed by the sample number, followed by an "A" (designating a sample collected 10 feet from the shoreline) or a "B" (designating a sample collected 50 feet from the shoreline), followed by a six-digit sampling date. For example, a surface water sample collected on April 10, 2017 from transect MRC-SW6 at the 10-foot ("A") location is labeled MRC-SW6A-041017. The trip blank is labeled with a "TB" prefix, followed by the blank's six-digit submittal date (e.g., TB-041017). The surface water samples collected west of Outfall 008 were labeled with an "SW" prefix followed by the sample number, followed by an "A" (designating a sample collected 10 feet from the shoreline), followed by an "S" (designating a sample collected one foot below the water surface) or a "D" (designating a sample collected one foot above the water/sediment interface), followed by a six-digit sampling date. For example, a surface water sample collected on April 10, 2017 from transect MRC-SW13 at the 10-foot ("A") and shallow-depth location is labeled MRC-SW13A-S-041017.

Sample handling includes field-related considerations concerning the selection of sample containers, preservatives, allowable holding times, and analyses requested. Proper custody procedures were followed throughout all phases of sample collection and handling. COC protocols used throughout sample handling ensure the evidentiary integrity of sample containers.

Sample containers were released under signature from the laboratory and accepted under signature by the sampler(s) or individual responsible for maintaining custody until the sample containers were transferred to the sampler(s). Transport containers returned to the laboratory were sealed with

strapping tape and a tamper-proof custody seal. The custody seal includes the signature of the individual initially releasing the transport container, along with the date and time.

3.1.4 Equipment Decontamination

To minimize decontamination, both dedicated and disposable equipment (e.g., gloves, rope) were used for surface water sampling. The stainless-steel discrete-interval sampler (i.e., a "bacon bomb" sampler) was rinsed with distilled water before the first sample was collected and after each use.

3.1.5 Waste Management

No investigation-derived waste (IDW) was generated during this surface-water sampling event. General waste (i.e., gloves, rope, etc.) was disposed of in appropriate facility waste disposal containers.

3.2 DATA MANAGEMENT

Laboratory data-handling procedures meet the requirements of the laboratory subcontract. All analytical and field data are maintained in project files. These files include copies of the COC forms, sampling log forms, sampling location maps, and documentation of laboratory quality assurance.

3.2.1 Data Tracking and Control

A cradle-to-grave sample-tracking system was used from the beginning to the end of sampling. This system allows for early detection of errors made in the field so that adjustments can be made while the field team is still mobilized. Before field mobilization, the field operations leader coordinated and initiated sample tracking. Sample jar labels were handwritten in the field and reviewed to ensure that they were accurate and adhered to work plan requirements.

The project manager (PM) coordinated with the analytical laboratory to ensure that they were aware of the number and types of samples and analyses being submitted. On the day that samples were collected in the field, the field operations leader forwarded the COC form to the PM (or designee) and the laboratory. The PM or designee confirmed that the COC forms provided the information required by the work plan. After all requested analyses had been completed, the laboratory submitted an electronic deliverable for every sample delivery group. When all

electronic deliverables had been received from the laboratory, the PM or designee ensured that the laboratory had performed all requested analyses.

3.2.2 Sample Information

Data from field measurements were recorded using appropriate log sheets and summarized in tabular form. Raw instrument-data from the laboratory were also tabulated. The field operations leader verified field data daily; laboratory data were verified by the group supervisor, and then by the laboratory's quality control/documentation department.

3.2.3 Project Data Compilation

The analytical laboratory generated a portable document format (PDF) file of the analytical data packages, as well as electronic database deliverables. The electronic data were checked against the PDF file from the laboratory and updated as required by applying data-qualifier flags during data validation. All data, such as units of measure and chemical nomenclature, are consistent with the project database.

3.2.4 Geographical Information System

Data management systems consist of a relational database and GIS to manage environmental information pertaining to the MRC. The relational database stores chemical, geological, hydrogeological, and other environmental data collected during environmental investigations; the GIS is created from the relational database and contains subsets of the larger data pool. The GIS allows posting of environmental data onto base maps to represent the information graphically. Compiled sampling, chemical, and positional data were incorporated into the GIS.

3.3 DATA REVIEW

Data from the laboratory were entered into a sample database and evaluated against various screening criteria. Data validation (consisting of data completeness, holding time, calibrations, lab check standards, laboratory contamination, detection limits, surrogate recovery, and method blanks) was completed concurrent with the data evaluation. This review is based on the USEPA *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, 2017a), *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017b), and the specifics of the analytical method used. Data from this sampling event consist of chemical results from surface water samples. Appendix C contains tables of all 2017 MRC

surface-water-sample analytical data, and includes validation qualifiers, nondetects, and analytical detection limits.

Validation of the MRC data concluded that they are acceptable for their intended uses (i.e., risk screening and risk assessment). The *J*-flag appears on the chemical-results tables in Section 4 and all flags appear in Appendices B and C. The data qualifiers (i.e., flags) applied to the chemical results during data validation are listed below:

J The analyte is considered present in the sample, but the value is estimated and may not meet highest accuracy or precision standards. In this program, samples were qualified with "*J*" because quantitation was above the method detection limit but below the laboratory reporting limit.

U Not detected; the analyte was not detected at the reported value.

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

Table 3-1
Chemical Analyses of Surface Water Samples, April 2017
Cow Pen Creek and Dark Head Cove
Lockheed Martin Middle River Complex, Middle River, Maryland

Sampling location	Sample number	Distance from shore (feet)	Analytical parameters	Sampling month	Number of samples
Dark Head Cove					
Outfall 005	SW5A1[(2)] SW5A2[(2)] SW5B[(2)]	10[(1)] 10[(1)] 50	Volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) field parameters	April 2017	1 1 1
Outfall 006 near the southeastern trichloroethene (TCE) plume	SW6A[(2)] SW6B[(2)]	10 50	VOCs, PCBs, field parameters	April 2017	1 1
Outfall 007	SW7A[(2)] SW7B[(2)]	10 50	VOCs, PCBs, field parameters	April 2017	1 1
Outfall 008 near the southeastern TCE plume	SW8A[(2)] SW8B[(2)]	10 50	VOCs, PCBs, field parameters	April 2017	1 1
Outfall 009	SW9A[(2)] SW9B[(2)]	10 50	VOCs, PCBs, field parameters	April 2017	1 1
Cow Pen Creek					
Near the southwestern TCE plume	SW1A SW2A	Upstream Downstream (near stream center)	VOCs, 1,4-dioxane, field parameters	April 2017	1 1

[(1)]Two near-shore samples (10-feet out) were collected at each outlet of Outfall 005. One near-shore sample was collected at all other Dark Head Cove outfalls (006–009).

[(2)]Two samples were collected at each location, with the first sample ("S") collected one foot below the water surface, and the second sample ("D") collected one foot above the water/sediment interface.

Table 3-2
Additional Chemical Analyses of Surface Water Samples, April 2017
Cow Pen Creek and Dark Head Cove
Lockheed Martin Middle River Complex, Middle River, Maryland

Sampling location	Sample number	Distance from shore (feet)	Analytical parameters	Sampling month	Number of samples
Dark Head Cove					
Outfall 008	SW8A1 SW8A2	1[(1)] 5[(1)]	Volatile organic compounds (VOCs), field parameters	April 2017	1 1
Near Outfall 008 and the southeastern trichloroethene plume	SW12B (S/D) SW12C (S/D) SW13A (S/D) SW13B (S/D) SW14A (S/D) SW14B (S/D) SW15A (S/D) SW16A (S/D)	50 100 10 50 10 50 10 10	VOC, field parameters	April 2017	2[(2)] 2[(2)] 2[(2)] 2[(2)] 2[(2)] 2[(2)] 2[(2)] 2[(2)]

[(1)]Two near-shore samples (one-foot and five-feet out) were collected at Outfall 008.

[(2)]Two samples were collected at each location, with the first sample ("S") collected one foot below the water surface, and the second sample ("D") collected one foot above the water/sediment interface.

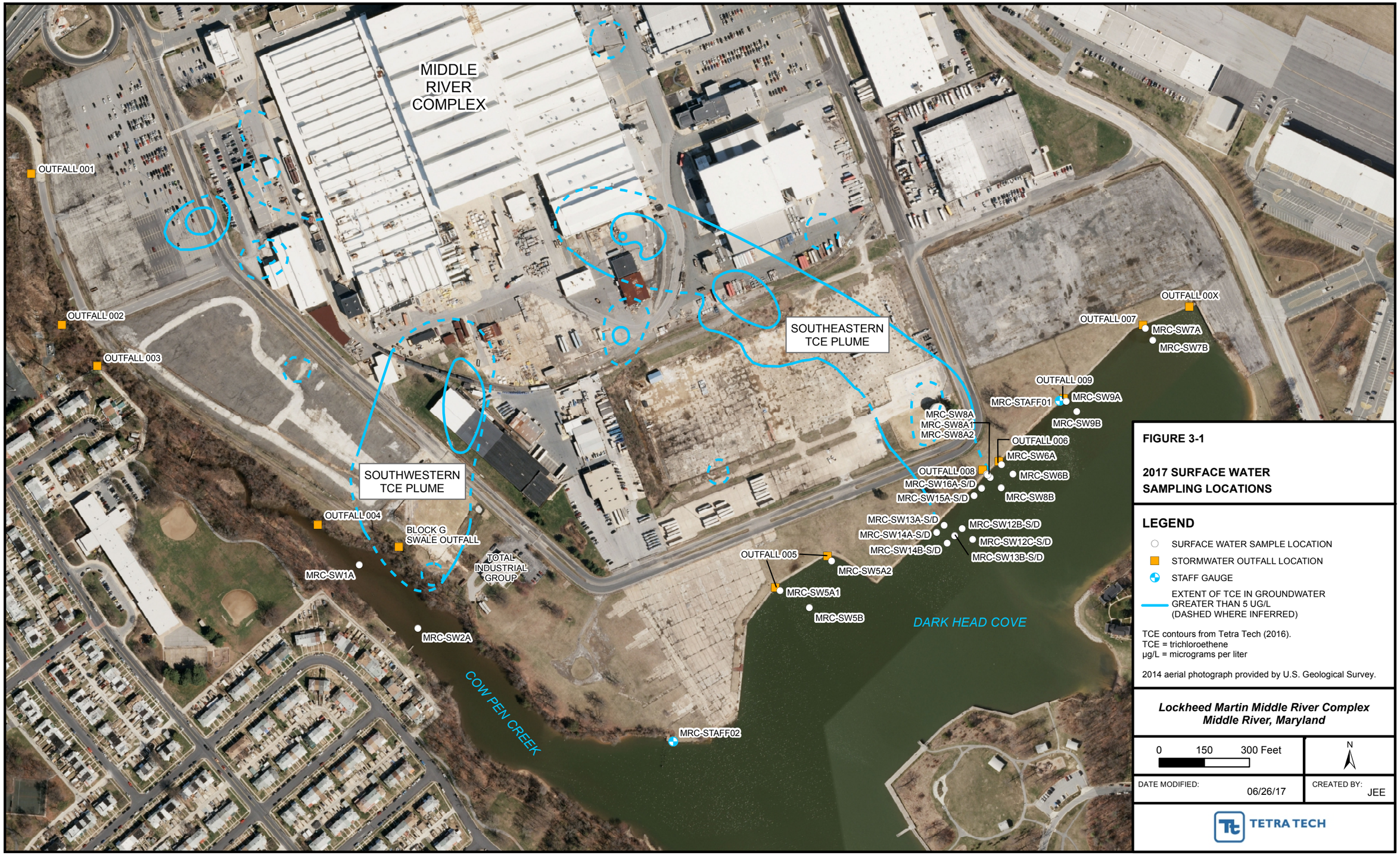

FIGURE 3-1

2017 SURFACE WATER SAMPLING LOCATIONS

LEGEND

- SURFACE WATER SAMPLE LOCATION
- STORMWATER OUTFALL LOCATION
- STAFF GAUGE
- EXTENT OF TCE IN GROUNDWATER GREATER THAN 5 UG/L (DASHED WHERE INFERRED)

TCE contours from Tetra Tech (2016).
TCE = trichloroethene
µg/L = micrograms per liter

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

Lockheed Martin Middle River Complex
Middle River, Maryland

0 150 300 Feet

N

DATE MODIFIED: 06/26/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_sw_locations_apr2017.mxd)
06/26/17 -- JEE

Section 4
Results

April 2017 validated surface-water chemical data were used to generate a figure presenting the analytes detected (Figure 4-1), a statistical summary table (Table 4-1), and a table (Table 4-2) listing only positive detections. (Note that, because all sample names share the same leading prefix ["MRC"], that prefix has been dropped in the following discussion to improve readability. For example, MRC-SW1A is referred to simply as "SW1A" in this section.) Tables 4-1 and 4-2 are based on the full data listing in Appendix C (Table C-1). Table 4-2 compares surface-water sampling results to several applicable screening criteria, including:

- United States Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) freshwater screening-benchmarks (USEPA, 2006)
- USEPA Region 5 ecological screening level for 1,4-dioxane in water (USEPA, 2003)
- USEPA national recommended water quality criteria (NRWQC) for acute and chronic aquatic-organism exposures and NRWQC for human health aquatic-organism consumption (USEPA, 2009)
- Maryland ambient water quality criteria (AWQC) for acute and chronic aquatic-organism-exposures, and AWQC for human health aquatic-organism-consumption (*Code of Maryland Regulations*, 2016)
- Site-specific screening levels for swimming, developed by Lockheed Martin Corporation (Lockheed Martin) in March 2017 for trichloroethene, *cis*-1,2-dichloroethene, 1,4-dioxane, and total PCBs (Appendix D).

4.1 VOLATILE ORGANIC COMPOUNDS

As shown in Table 4-1 and Figure 4-1, three VOCs were detected in surface water: trichlorethene (TCE), total xylenes, and 1,2,4-trichlorobenzene. TCE, the primary VOC associated with Middle River Complex (MRC) groundwater, was detected in 25 sampling locations in Dark Head Cove. The highest detections of TCE were observed near Outfall 8, at surface water sampling locations SW8A2 (3.8 micrograms per liter [µg/L]), SW8A1 (3.2 µg/L), SW15A-S (3.1 µg/L), and SW16A–D (2.4 µg/L). These sampling locations are adjacent to the southeastern TCE

groundwater plume. *cis*-1,2-Dichloroethene (*cis*-1,2-DCE) and vinyl chloride (breakdown products of TCE) and other VOCs commonly found in MRC groundwater plumes were not detected in these samples. 1,2,4-Trichlorobenzene was detected at low concentrations in sample SW14A-S (0.43*J* µg/L), collected between Outfalls 5 and 8 and near Outfall 5 in sample SW5B (0.35*J* µg/L). Total xylenes were detected near Outfall 5 in only one sample SW-5A1 (0.28*J* µg/L).

As shown in Table 4-2, all detected VOC concentrations are low and less than their respective screening criteria. TCE detections are "*J*" qualified because the concentrations are above the method detection limit but below the laboratory practical quantitation-limit. TCE was not detected in the two samples collected from Cow Pen Creek.

During the 2015 sampling round, the sole TCE detection (0.42*J* µg/L at SW5A2) was in a sample collected near Outfall 005. TCE concentrations in 2014 range from 0.3*J* µg/L (SW5A2) near Outfall 5 to 0.54 µg/L (SW8A) near Outfall 8. Similar to the 2015 sampling result, the highest TCE concentrations (1.1–1.9 µg/L) in 2013 were from samples SW5A1, SW5A2, and SW5B, all collected near Outfall 005. In contrast, the highest TCE concentrations detected in 2012 (0.55*J*-0.82*J* µg/L), 2014 (0.52*J*–0.54*J* µg/L), and the 2016 sampling (0.26*J*–0.49*J* µg/L) were in samples collected from transects at Outfalls 006 and 008, near the southeastern TCE groundwater plume (see Table C-2 in Appendix C).

The maximum 2016 TCE concentration (0.49*J* µg/L) is similar to the maximum TCE concentrations in 2015 (0.42*J* µg/L) and in 2014 (0.54*J* µg/L at Outfall 008). These concentrations are approximately one-quarter that of the maximum TCE concentration detected in 2013 (1.9 µg/L at Outfall 005). Note that surface water sampling is dynamic in nature, and the distribution of the contaminants in Dark Head Cove and Cow Pen Creek can be affected by tidal-zone mixing, however, this impact is minimized by collecting samples at the same tide cycle during each event.

The maximum 2017 TCE concentration (3.8 µg/L) for the April 2017 event is higher than previous maximum concentrations detected from 2013–2016. However, the surface-water monitoring program has been expanded to include a broader area near Outfall 008. More data will be collected later this year during the June and September events, and these data may provide further insight regarding the TCE distribution observed during the current (April 2017) sampling.

USEPA and Maryland have not established acute or chronic freshwater criteria for TCE, total xylenes, or 1,2,4-trichlorobenzene. However, they have established a human health

consumption-of-aquatic-organism criterion of 300 µg/L for TCE (when adjusted for the MDE risk level of 1×10^{-05} [i.e., a one in 100,000 risk probability]). The human health consumption-of-aquatic-organism criterion for 1,2,4-trichlorobenzene is 70 µg/L. The BTAG ecological screening levels for TCE and 1,2,4-trichlorobenzene are 21 µg/L and 70 µg/L, respectively. The swimming criterion for TCE is 30 µg/L. The maximum TCE concentration (3.8 µg/L) detected in this investigation is more than 5.5 times below the lowest (i.e., most conservative) regulatory screening level (21 µg/L), and almost eight times below its site-specific screening-criterion (30 µg/L) for evaluating exposure risks to swimmers (Appendix D). All TCE, total xylene, and 1,2,4-trichlorobenzene results are below ecological and human health screening-criteria.

4.2 1,4-DIOXANE

As shown in Figure 4-1, 1,4-dioxane was detected at a concentration of 0.096*J* µg/L in the sample collected from SW1A (and 0.1*J* µg/L in its duplicate), and 0.097*J* µg/L in the sample collected from SW2A. These concentrations are more than five orders of magnitude (nearly 100,000 times) lower than the USEPA ecological screening level (22,000 µg/L), and several orders of magnitude below the site-specific swimming criteria of 30 µg/L.

4.3 POLYCHLORINATED BIPHENYLS

Polychlorinated biphenyls (PCBs) were not detected in any sample collected during this round (April 2017) of sampling (low detection limits achieved by the laboratory using Method 680). The dredging in Dark Head Cove began in 2015 (during which time the highest concentrations of PCBs were removed from around Outfall 005) and completed in 2016. Lower concentrations of PCBs remain in a broad area of Dark Head Cove, for which the approved remediation is application of *in situ* carbon amendment to bind up the PCBs and render them no longer bioavailable. The carbon amendment is scheduled to be placed in Dark Head Cove in the fall of 2017.

4.4 WATER-QUALITY PARAMETERS

Water-quality parameters measured in the field for each surface water sample collected in April 2017 are in Table 4-3. Data were collected for pH, specific conductivity (SC), hardness, temperature, turbidity, dissolved oxygen (DO), salinity, and oxidation-reduction potential (ORP). During this sampling round, water-quality parameters were also measured at all deep ("D") sampling locations, from a depth interval of one foot above the water/sediment interface. The

April 2017 pH values are consistent with natural surface water in this region. SC is closely associated with salinity, and samples with lower salinity had an expected lower SC, and vice versa. pH was slightly lower in Cow Pen Creek samples, which also had lower salinity and SC, as compared to samples from Dark Head Cove. These results may be due to runoff into the creek or due to restricted water flow into or out of the creek.

Turbidity was consistent in most samples, with the highest turbidity found in the "D" interval samples collected in Dark Head Cove; the higher turbidity in these samples is most likely due to the collection interval, which is close to the water/sediment interface. All DO levels are on the high side of typical values, indicating a healthy estuarine environment. ORP values are all positive, which is consistent with an oxygen-rich environment. All water-quality parameters are typical of a tidally controlled estuarine environment.

Table 4-1
Statistical Summary of Analytes Detected in Surface Water Samples, April 2017
Middle River Complex, Middle River, Maryland

Chemical	Frequency of detection		Minimum nondetect concentration	Maximum nondetect concentration	Minimum detected concentration	Maximum detected concentration	Location of maximum detected sample	Mean of all samples	Mean of positive detects	Standard deviation
	Number	Percent								
Volatile organic compounds (µg/L)										
1,2,4-Trichlorobenzene	2/31	6	0.27	0.27	0.35*J*	0.43*J*	MRC-SW14A-S	0.151451	0.39	0.064513481
Total xylenes	1/31	3	0.24	0.24	0.28*J*	0.28*J*	MRC-SW5A1	0.125161	0.28	0.028736848
Trichloroethene	25/31	81	0.33	0.33	0.34*J*	3.8	MRC-SW8A2	0.874677	1.045	0.950988902
Semivolatile organic compounds (µg/L)										
1,4-Dioxane	2/2	100	Null	Null	0.096*J*	0.1*J*	MRC-SW1A	0.0975	0.0975	0.000707107

For nondetects, half the sample quantitation limit was used as a proxy concentration to calculate statistics.
J— estimated value
µg/L—microgram(s) per liter
SW—surface water
U—not detected
UJ—nondetect result is estimated

Associated samples:

MRC-SW12B-D-041017
MRC-SW12B-S-041017
MRC-SW12C-D-041017
MRC-SW12C-S-041017
MRC-SW13A-D-041017
MRC-SW13A-S-041017
MRC-SW13B-D-041017
MRC-SW13B-S-041017
MRC-SW14A-D-041017
MRC-SW14A-S-041017
MRC-SW14B-D-041017
MRC-SW14B-S-041017
MRC-SW15A-D-041017
MRC-SW15A-S-041017
MRC-SW16A-D-041017
MRC-SW16A-S-041017
MRC-SW1A-041017
MRC-SW1A-041017-D
MRC-SW5A2-041017
MRC-SW5B-041017
MRC-SW2A-041017
MRC-SW5A1-041017
MRC-SW6A-041017
MRC-SW6B-041017
MRC-SW7A-041017
MRC-SW7A-041017-D
MRC-SW7B-041017
MRC-SW8A-041017
MRC-SW8A1-041117
MRC-SW8A2-041117
MRC-SW8B-041017
MRC-SW9A-041017
MRC-SW9B-041017

Table 4-2
Detected Analytes and Screening Level Exceedances in April 2017 Surface Water Samples
Middle River Complex, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MRC-SW12B-D MRC-SW12B-D-041017 20170410 NORMAL	MRC-SW12B-S MRC-SW12B-S-041017 20170410 NORMAL	MRC-SW12C-D MRC-SW12C-D-041017 20170410 NORMAL	MRC-SW12C-S MRC-SW12C-S-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	--	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	0.77 J	0.37 J	--	0.36 J
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22,000	NA	30	NA	NA	NA	NA

1 National Recommended Water Quality Criteria, http://water.epa.gov/scitech/swguidance/standards/current/index.cfm; and Maryland Numerical Criteria for Toxic Substances in Surface Waters, Code of Maryland Regulations (COMAR) 26.08.02.03, http://www.dsd.state.md.us./comar/comarhtml/26/26.08.02.03-2.htm

2 United State Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) Freshwater Screening Benchmarks. Value for 1,4-dioxane is the USEPA Region 5 ecological screening value (USEPA, 2003). Value for 1,4-dioxane is USEPA Region 5 screening value (USEPA, 2003)

3 For carcinogens, criterion is for incremental cancer risk of $1x10^{-5}$

4 Site-specific swimming screening levels were developed for trichloroethene, *cis* -1,2-dichloroethene, 1,4 dioxane and Total PCBs for Dark Head Cove.

Gray shading indicates a result that exceeds a screening criterion.

-- not detected
J - estimated result
µg/L - micrograms per liter
MRC - Middle River Complex
NA - not analyzed or not available
SW - surface water

Table 4-2
Detected Analytes and Screening Level Exceedances in April 2017 Surface Water Samples
Middle River Complex, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MRC-SW13A-D MRC-SW13A-D-041017 20170410 NORMAL	MRC-SW13A-S MRC-SW13A-S-041017 20170410 NORMAL	MRC-SW13B-D MRC-SW13B-D-041017 20170410 NORMAL	MRC-SW13B-S MRC-SW13B-S-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	--	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	1.4	0.36 J	0.69 J	--
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22,000	NA	30	NA	NA	NA	NA

1 National Recommended Water Quality Criteria, http://water.epa.gov/scitech/swguidance/standards/current/index.cfm; and Maryland Numerical Criteria for Toxic Substances in Surface Waters, Code of Maryland Regulations (COMAR) 26.08.02.03, http://www.dsd.state.md.us./comar/comarhtml/26/26.08.02.03-2.htm

2 United State Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) Freshwater Screening Benchmarks. Value for 1,4-dioxane is the USEPA Region 5 ecological screening value (USEPA, 2003). Value for 1,4-dioxane is USEPA Region 5 screening value (USEPA, 2003)

3 For carcinogens, criterion is for incremental cancer risk of $1x10^{-5}$

4 Site-specific swimming screening levels were developed for trichloroethene, *cis* -1,2-dichloroethene, 1,4 dioxane and Total PCBs for Dark Head Cove.

Gray shading indicates a result that exceeds a screening criterion.

-- not detected
J - estimated result
µg/L - micrograms per liter
MRC - Middle River Complex
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Table 4-2
Detected Analytes and Screening Level Exceedances in April 2017 Surface Water Samples
Middle River Complex, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MRC-SW14A-D MRC-SW14A-D-041017 20170410 NORMAL	MRC-SW14A-S MRC-SW14A-S-041017 20170410 NORMAL	MRC-SW14B-D MRC-SW14B-D-041017 20170410 NORMAL	MRC-SW14B-S MRC-SW14B-S-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	--	0.43 J	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	0.86 J	0.39 J	--	--
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22,000	NA	30	NA	NA	NA	NA

1 National Recommended Water Quality Criteria, http://water.epa.gov/scitech/swguidance/standards/current/index.cfm; and Maryland Numerical Criteria for Toxic Substances in Surface Waters, Code of Maryland Regulations (COMAR) 26.08.02.03, http://www.dsd.state.md.us./comar/comarhtml/26/26.08.02.03-2.htm

2 United State Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) Freshwater Screening Benchmarks. Value for 1,4-dioxane is the USEPA Region 5 ecological screening value (USEPA, 2003). Value for 1,4-dioxane is USEPA Region 5 screening value (USEPA, 2003)

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4 Site-specific swimming screening levels were developed for trichloroethene, *cis* -1,2-dichloroethene, 1,4 dioxane and Total PCBs for Dark Head Cove.

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-- not detected
J - estimated result
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MRC - Middle River Complex
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Table 4-2
Detected Analytes and Screening Level Exceedances in April 2017 Surface Water Samples
Middle River Complex, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MRC-SW15A-D MRC-SW15A-D-041017 20170410 NORMAL	MRC-SW15A-S MRC-SW15A-S-041017 20170410 NORMAL	MRC-SW16A-D MRC-SW16A-D-041017 20170410 NORMAL	MRC-SW16A-S MRC-SW16A-S-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	--	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	1.2	3.1	2.4	0.82 J
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22,000	NA	30	NA	NA	NA	NA

1 National Recommended Water Quality Criteria, http://water.epa.gov/scitech/swguidance/standards/current/index.cfm; and Maryland Numerical Criteria for Toxic Substances in Surface Waters, Code of Maryland Regulations (COMAR) 26.08.02.03, http://www.dsd.state.md.us./comar/comarhtml/26/26.08.02.03-2.htm

2 United State Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) Freshwater Screening Benchmarks. Value for 1,4-dioxane is the USEPA Region 5 ecological screening value (USEPA, 2003). Value for 1,4-dioxane is USEPA Region 5 screening value (USEPA, 2003)

3 For carcinogens, criterion is for incremental cancer risk of $1x10^{-5}$

4 Site-specific swimming screening levels were developed for trichloroethene, *cis*-1,2-dichloroethene, 1,4 dioxane and Total PCBs for Dark Head Cove.

Gray shading indicates a result that exceeds a screening criterion.

-- not detected
J - estimated result
µg/L - micrograms per liter
MRC - Middle River Complex
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Table 4-2
Detected Analytes and Screening Level Exceedances in April 2017 Surface Water Samples
Middle River Complex, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MRC-SW1A MRC-SW1A-041017 20170410 ORIG	MRC-SW1A-041017-AVG 20170410 AVG	MRC-SW1A-041017-D 20170410 DUP	MRC-SW2A MRC-SW2A-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	--	--	NA	--
TOTAL XYLENES	NA	NA	13	NA	NA	--	--	NA	--
TRICHLOROETHENE	NA	NA	21	300	30	--	--	NA	--
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22,000	NA	30	0.096 J	0.098	0.1 J	0.097 J

1 National Recommended Water Quality Criteria, http://water.epa.gov/scitech/swguidance/standards/current/index.cfm; and Maryland Numerical Criteria for Toxic Substances in Surface Waters, Code of Maryland Regulations (COMAR) 26.08.02.03, http://www.dsd.state.md.us./comar/comarhtml/26/26.08.02.03-2.htm

2 United State Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) Freshwater Screening Benchmarks. Value for 1,4-dioxane is the USEPA Region 5 ecological screening value (USEPA, 2003). Value for 1,4-dioxane is USEPA Region 5 screening value (USEPA, 2003)

3 For carcinogens, criterion is for incremental cancer risk of $1x10^{-5}$

4 Site-specific swimming screening levels were developed for trichloroethene, *cis*-1,2-dichloroethene, 1,4 dioxane and Total PCBs for Dark Head Cove.

Gray shading indicates a result that exceeds a screening criterion.

-- not detected
J - estimated result
µg/L - micrograms per liter
MRC - Middle River Complex
NA - not analyzed or not available
SW - surface water

Table 4-2
Detected Analytes and Screening Level Exceedances in April 2017 Surface Water Samples
Middle River Complex, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MRC-SW5A1 MRC-SW5A1-041017 20170410 NORMAL	MRC-SW5A2 MRC-SW5A2-041017 20170410 NORMAL	MRC-SW5B MRC-SW5B-041017 20170410 NORMAL	MRC-SW6A MRC-SW6A-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	--	--	0.35 J	--
TOTAL XYLENES	NA	NA	13	NA	NA	0.28 J	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	0.45 J	0.6 J	0.35 J	0.93 J
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22,000	NA	30	NA	NA	NA	NA

1 National Recommended Water Quality Criteria, http://water.epa.gov/scitech/swguidance/standards/current/index.cfm; and Maryland Numerical Criteria for Toxic Substances in Surface Waters, Code of Maryland Regulations (COMAR) 26.08.02.03, http://www.dsd.state.md.us./comar/comarhtml/26/26.08.02.03-2.htm

2 United State Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) Freshwater Screening Benchmarks. Value for 1,4-dioxane is the USEPA Region 5 ecological screening value (USEPA, 2003). Value for 1,4-dioxane is USEPA Region 5 screening value (USEPA, 2003)

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4 Site-specific swimming screening levels were developed for trichloroethene, *cis* -1,2-dichloroethene, 1,4 dioxane and Total PCBs for Dark Head Cove.

Gray shading indicates a result that exceeds a screening criterion.

-- not detected
J - estimated result
µg/L - micrograms per liter
MRC - Middle River Complex
NA - not analyzed or not available
SW - surface water

Table 4-2
Detected Analytes and Screening Level Exceedances in April 2017 Surface Water Samples
Middle River Complex, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MRC-SW6B MRC-SW6B-041017 20170410 NORMAL	MRC-SW7A MRC-SW7A-041017 20170410 ORIG	MRC-SW7A-041017-AVG 20170410 AVG	MRC-SW7A-041017-D 20170410 DUP
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	--	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	0.94 J	0.48 J	0.475	0.47 J
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22,000	NA	30	NA	NA	NA	NA

1 National Recommended Water Quality Criteria, http://water.epa.gov/scitech/swguidance/standards/current/index.cfm; and Maryland Numerical Criteria for Toxic Substances in Surface Waters, Code of Maryland Regulations (COMAR) 26.08.02.03, http://www.dsd.state.md.us./comar/comarhtml/26/26.08.02.03-2.htm

2 United State Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) Freshwater Screening Benchmarks. Value for 1,4-dioxane is the USEPA Region 5 ecological screening value (USEPA, 2003). Value for 1,4-dioxane is USEPA Region 5 screening value (USEPA, 2003)

3 For carcinogens, criterion is for incremental cancer risk of $1x10^{-5}$

4 Site-specific swimming screening levels were developed for trichloroethene, *cis*-1,2-dichloroethene, 1,4 dioxane and Total PCBs for Dark Head Cove.

Gray shading indicates a result that exceeds a screening criterion.

-- not detected
J - estimated result
µg/L - micrograms per liter
MRC - Middle River Complex
NA - not analyzed or not available
SW - surface water

Table 4-2
Detected Analytes and Screening Level Exceedances in April 2017 Surface Water Samples
Middle River Complex, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MRC-SW7B MRC-SW7B-041017 20170410 NORMAL	MRC-SW8A MRC-SW8A-041017 20170410 NORMAL	MRC-SW8A1 MRC-SW8A1-041117 20170411 NORMAL	MRC-SW8A2 MRC-SW8A2-041117 20170411 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	--	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	--	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	0.56 J	0.78 J	3.2	3.8
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22,000	NA	30	NA	NA	NA	NA

1 National Recommended Water Quality Criteria, http://water.epa.gov/scitech/swguidance/standards/current/index.cfm; and Maryland Numerical Criteria for Toxic Substances in Surface Waters, Code of Maryland Regulations (COMAR) 26.08.02.03, http://www.dsd.state.md.us./comar/comarhtml/26/26.08.02.03-2.htm

2 United State Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) Freshwater Screening Benchmarks. Value for 1,4-dioxane is the USEPA Region 5 ecological screening value (USEPA, 2003). Value for 1,4-dioxane is USEPA Region 5 screening value (USEPA, 2003)

3 For carcinogens, criterion is for incremental cancer risk of $1x10^{-5}$

4 Site-specific swimming screening levels were developed for trichloroethene, *cis* -1,2-dichloroethene, 1,4 dioxane and Total PCBs for Dark Head Cove.

Gray shading indicates a result that exceeds a screening criterion.

-- not detected
J - estimated result
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MRC - Middle River Complex
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SW - surface water

Table 4-2
Detected Analytes and Screening Level Exceedances in April 2017 Surface Water Samples
Middle River Complex, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	MRC-SW8B MRC-SW8B-041017 20170410 NORMAL	MRC-SW9A MRC-SW9A-041017 20170410 NORMAL	MRC-SW9B MRC-SW9B-041017 20170410 NORMAL
	Acute	Chronic						
VOLATILES (UG/L)								
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	0.61 J	0.34 J	0.37 J
SEMIVOLATILES (UG/L)								
1,4-DIOXANE	NA	NA	22,000	NA	30	NA	NA	NA

1 National Recommended Water Quality Criteria, http://water.epa.gov/scitech/swguidance/standards/current/index.cfm; and Maryland Numerical Criteria for Toxic Substances in Surface Waters, Code of Maryland Regulations (COMAR) 26.08.02.03, http://www.dsd.state.md.us./comar/comarhtml/26/26.08.02.03-2.htm

2 United State Environmental Protection Agency (USEPA) Region 3 Biological Technical Advisory Group (BTAG) Freshwater Screening Benchmarks. Value for 1,4-dioxane is the USEPA Region 5 ecological screening value (USEPA, 2003). Value for 1,4-dioxane is USEPA Region 5 screening value (USEPA, 2003)

3 For carcinogens, criterion is for incremental cancer risk of $1x10^{-5}$

4 Site-specific swimming screening levels were developed for trichloroethene, *cis*-1,2-dichloroethene, 1,4 dioxane and Total PCBs for Dark Head Cove.

Gray shading indicates a result that exceeds a screening criterion.

-- not detected
J - estimated result
µg/L - micrograms per liter
MRC - Middle River Complex
NA - not analyzed or not available
SW - surface water

Table 4-3
Field Measurements for Surface-Water Quality, April 2017
Cow Pen Creek and Dark Head Cove
Lockheed Martin Middle River Complex, Middle River, Maryland
Page 1 of 3

Location	Color	pH (S.U.)	SC (mS/cm)	Turbidity (NTU)	Temp (ºC)	ORP (mV)	Salinity (ppt)	DO (mg/L)	Hardness (mg/L CaCO3)
SW1A (S)	Clear	6.66	4.67	8.41	17.42	244	2.5	10.35	632.7
SW2A (S)	Clear	7.57	5.47	10.13	16.34	208	2.9	14.56	615.6
SW5A1 (S)	Clear	8.23	5.63	9.44	15.49	192	3.0	11.95	666.9
SW5A1 (D)	Clear	7.99	5.68	3.05	12.95	193	3.1	7.74	666.9
SW5A2 (S)	Clear	8.38	5.55	12.08	15.17	188	3.0	11.94	649.8
SW5A2 (D)	Clear	8.04	5.7	16.7	12.67	194	3.1	7.4	649.8
SW5B (S)	Clear	8.42	5.66	11.68	15.05	182	3.0	10.36	649.8
SW5B (D)	Clear	7.84	5.73	14.8	12.08	189	3.1	6.69	649.8
SW6A (S)	Clear	8.29	5.63	12.26	15.62	172	3.0	14.07	616.6
SW6A (D)	Clear	8.06	5.73	37.8	12.83	174	3.1	9.05	615.6
SW6B (S)	Clear	8.48	5.57	10.85	15.66	163	3.0	10.25	615.6
SW6B (D)	Clear	8.01	5.64	31.5	13.85	174	3.0	7.16	615.6
SW7A (S)	Clear	8.21	4.79	9.78	15.73	166	2.8	10.17	581.4
SW7A (D)	Clear	8.03	5.58	14.4	13.69	173	3.0	7.64	581.4

ºC— degrees Celsius
DO— dissolved oxygen
Gr/Br— greenish brown
mg/L— milligram(s) per liter
mS/cm—milliSiemen(s) per centimeter
mv— millivolt(s)
NTU—nephelometric turbidity unit(s)
ORP— oxidation-reduction potential
pH— hydrogen ion content (a measure of acidity or alkalinity)
SC— specific conductance
S.U.— standard unit(s)

Table 4-3
Field Measurements for Surface-Water Quality, April 2017
Cow Pen Creek and Dark Head Cove
Lockheed Martin Middle River Complex, Middle River, Maryland
Page 2 of 3

Location	Color	pH (S.U.)	SC (mS/cm)	Turbidity (NTU)	Temp (ºC)	ORP (mV)	Salinity (ppt)	DO (mg/L)	Hardness (mg/L CaCO3)
SW7B (S)	Clear	8.56	5.63	11.54	16.12	162	3.0	9.28	632.7
SW7B (D)	Clear	8.14	5.62	22.9	12.93	174	3.0	5.94	632.7
SW8A1	Clear	8.35	5.5	7.43	16.11	101	3.0	6.3	632.7
SW8A2	Clear	8.40	5.55	8.01	16.13	100	3.0	6.15	632.7
SW8A	Clear	8.28	5.61	8.62	15.37	179	3.0	12.61	632.7
SW8B (S)	Clear	8.41	5.66	11.16	15.44	188	3.0	8.73	649.8
SW8B (D)	Clear	7.86	5.66	27.8	12.95	197	3.0	5.62	649.8
SW9A (S)	Clear	8.55	5.59	10.87	16.27	156	2.0	8.88	632.7
SW9A (D)	Clear	8.15	5.6	27.2	14.39	169	3.0	8.37	632.7
SW9B (S)	Clear	8.83	5.64	12.25	16.61	149	3.0	9.46	615.6
SW9B (D)	Clear	8.13	5.67	20.5	13.4	167	3.0	7.34	615.6
SW12B–S	Clear	8.61	5.67	11.68	16.52	142	3.1	7.43	615.6
SW12B–D	Clear	8.36	5.67	12.1	14.4	155	3.0	6.67	615.6
SW12C–S	Clear	8.78	5.64	11.62	16.29	136	3.0	8.27	615.6

ºC— degrees Celsius
DO— dissolved oxygen
Gr/Br— greenish brown
mg/L— milligram(s) per liter
mS/cm—milliSiemen(s) per centimeter
mv— millivolt(s)
NTU— nephelometric turbidity unit(s)
ORP— oxidation-reduction potential
pH— hydrogen ion content (a measure of acidity or alkalinity)
SC— specific conductance
S.U.— standard unit(s)

Table 4-3
Field Measurements for Surface-Water Quality, April 2017
Cow Pen Creek and Dark Head Cove
Lockheed Martin Middle River Complex, Middle River, Maryland
Page 3 of 3

Location	Color	pH (S.U.)	SC(mS/cm)	Turbidity (NTU)	Temp (ºC)	ORP (mV)	Salinity (ppt)	DO (mg/L)	Hardness (mg/L CaCO3)
SW12C–D	Clear	8.23	5.63	16.5	14.03	156	3.0	6.69	615.6
SW13A–S	Clear	8.60	5.63	10.06	16.25	134	3.0	8.5	598.5
SW13A–D	Clear	8.28	5.61	12.4	14.36	150	3.0	6.99	598.5
SW13B–S	Clear	8.58	5.67	12.17	16.16	139	3.1	8.47	615.6
SW13B–D	Clear	8.17	5.65	16.2	13.99	152	3.0	7.04	615.6
SW14A–S	Clear	8.57	5.68	11.27	16.55	143	3.1	8.43	649.8
SW14A–D	Clear	8.35	5.66	11.2	14.44	156	3.0	7.16	649.8
SW14B–S	Clear	8.70	5.69	10.86	16.4	143	3.1	8.04	684
SW14B–D	Clear	8.21	5.71	14.7	13.31	157	3.1	5.98	684
SW15A–S	Clear	8.52	5.68	12.31	16.21	120	3.1	8.73	615.6
SW15A–D	Clear	8.34	5.62	16.9	14.4	131	3.0	7.53	615.6
SW16A–S	Clear	8.65	5.66	10.55	16.49	152	3.1	8.76	615.6
SW16A–D	Clear	8.21	5.66	12.31	13.21	164	3.0	6.12	615.6

ºC— degrees Celsius
DO— dissolved oxygen
Gr/Br— greenish brown
mg/L— milligram(s) per liter
mS/cm—milliSiemen(s) per centimeter
mv— millivolt(s)
NTU— nephelometric turbidity unit(s)
ORP— oxidation-reduction potential
pH— hydrogen ion content (a measure of acidity or alkalinity)
SC— specific conductance
S.U.— standard unit(s)

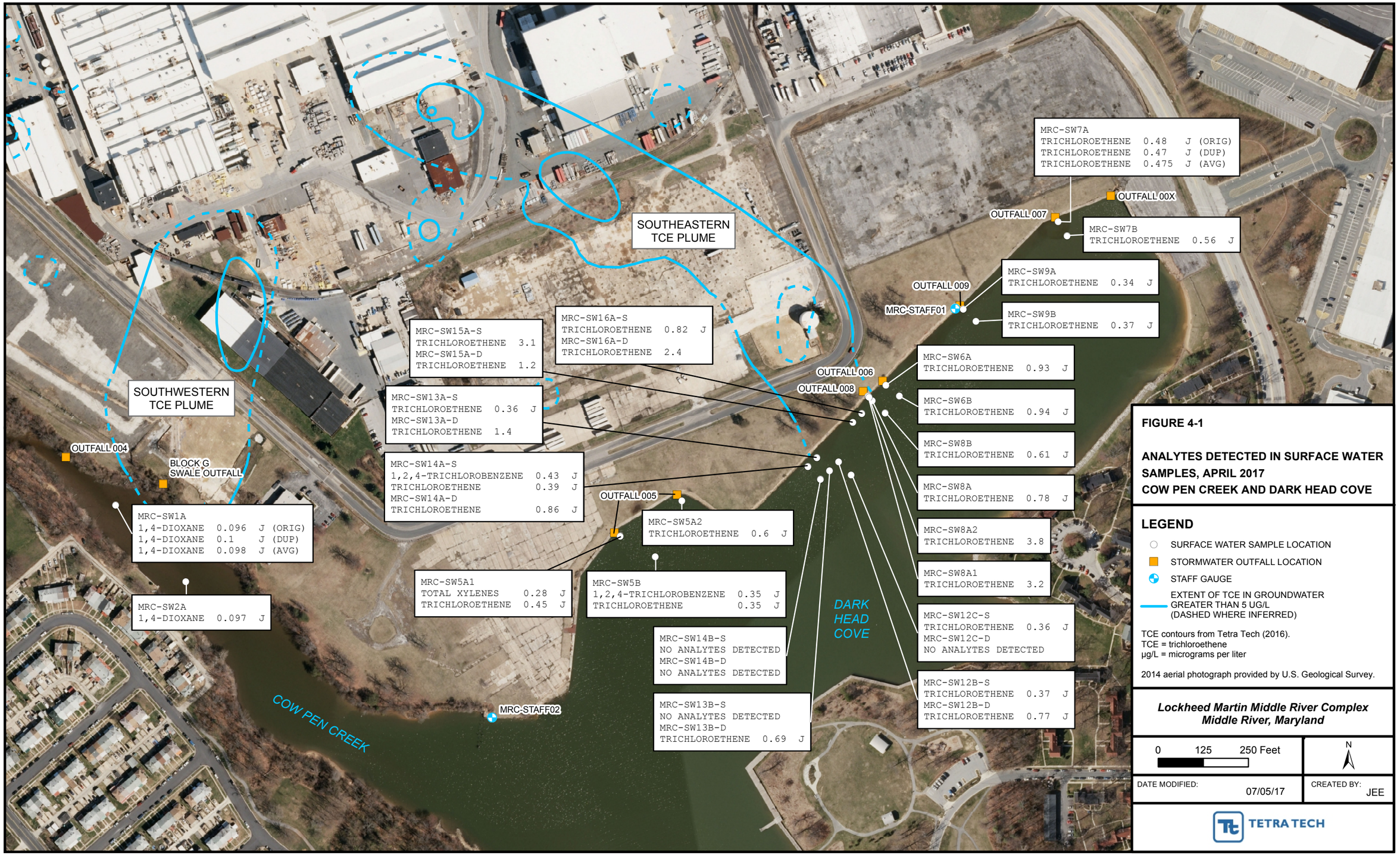

FIGURE 4-1

ANALYTES DETECTED IN SURFACE WATER SAMPLES, APRIL 2017
COW PEN CREEK AND DARK HEAD COVE

LEGEND

- SURFACE WATER SAMPLE LOCATION
- STORMWATER OUTFALL LOCATION
- STAFF GAUGE
- EXTENT OF TCE IN GROUNDWATER GREATER THAN 5 UG/L (DASHED WHERE INFERRED)

TCE contours from Tetra Tech (2016).
TCE = trichloroethene
µg/L = micrograms per liter

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

Lockheed Martin Middle River Complex
Middle River, Maryland

0 125 250 Feet

N

DATE MODIFIED: 07/05/17

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Middle_River\MapDocs\MXD\mrc_sw_tags_apr2017.mxd)
07/05/17 -- JEE

Section 5
Summary

Tetra Tech, Inc. (Tetra Tech) collected 31 water samples from Cow Pen Creek and Dark Head Cove on April 10–11, 2017 on behalf of Lockheed Martin Corporation (Lockheed Martin). The samples were chemically analyzed for volatile organic compounds (VOCs), 1,4-dioxane (for the two Cow Pen Creek samples only), and polychlorinated biphenyls (PCBs) (for the Dark Head Cove samples only). These analyses were performed to determine if these constituents are in surface water and if they originate from stormwater outfalls, sediments, or groundwater plumes at the Middle River Complex (MRC). The results were validated in accordance with United States Environmental Agency (USEPA) procedures and were compared to ecological and human-health criteria, including site-specific screening concentrations developed by Lockheed Martin Corporation for evaluating risks to recreational swimmers for three volatile organic compounds found at elevated concentrations in Middle River Complex groundwater plumes and total PCBs, because they are in site soil and sediment in Dark Head Cove.

The volatile organic compound trichloroethene (TCE) was detected at low concentrations (ranging from 0.34*J* to 3.8*J* micrograms per liter [µg/L]) in 25 surface-water sampling locations in Dark Head Cove, with the highest concentrations occurring adjacent to the southeastern trichloroethene plume. These trichloroethene concentrations are below the ecological and human-health screening criteria developed for this location based on contaminants present. The trichloroethene in surface water is likely due to discharge of impacted groundwater into surface water. In particular, for the southeast trichloroethene plume, recent investigative findings indicate higher concentrations of contaminant near the surface water body. Although some minor seepage of impacted groundwater might be occurring, surface water data indicate that concentrations are well below risk-based screening-criteria. Trichloroethene was not detected in the two Cow Pen Creek samples.

1,4-Dioxane was detected in Cow Pen Creek surface water at concentrations of 0.097*J* µg/L and 0.10*J* µg/L (in duplicate of MRC-SW1A) in two Cow Pen Creek locations. These concentrations are more than five orders of magnitude (nearly 100,000 times) lower than its United Stated Environmental Protection Agency ecological screening-level (22,000 µg/L), and far below the

site-specific screening criterion for swimming. 1,4-Dioxane is likely being discharged to Cow Pen Creek from the southwestern trichloroethene plume that includes 1,4-dioxane.

No polychlorinated biphenyl (PCB) homologs were detected in surface water samples in April 2017. These data support the conclusion that PCBs are not migrating from upland areas via surface water runoff or transport of impacted sediments from the storm-drainage system in Block E. Previous detections of PCBs in surface water near Outfall 005 might have been from historically contaminated sediments in Dark Head Cove that have now been removed.

Section 6
References

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8. Tetra Tech, Inc. (Tetra Tech), 2013b. *2013 Surface Water Sampling Report, Middle River Complex, 2323 Eastern Boulevard, Middle River, Maryland*. Report prepared by Tetra Tech, Inc., Germantown, Maryland for Lockheed Martin Corporation, Bethesda, Maryland. November.

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APPENDIX A—SURFACE-WATER-SAMPLING LOG SHEETS

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW5A1 -041017
Sample Location: MRC-SW5A1
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1209								
Depth:	1 ft below water	**clear**	**8.23**	**5.63**	**15.49**	**9.44**	**12.0**	**3**	**192**
Method:	Grab								

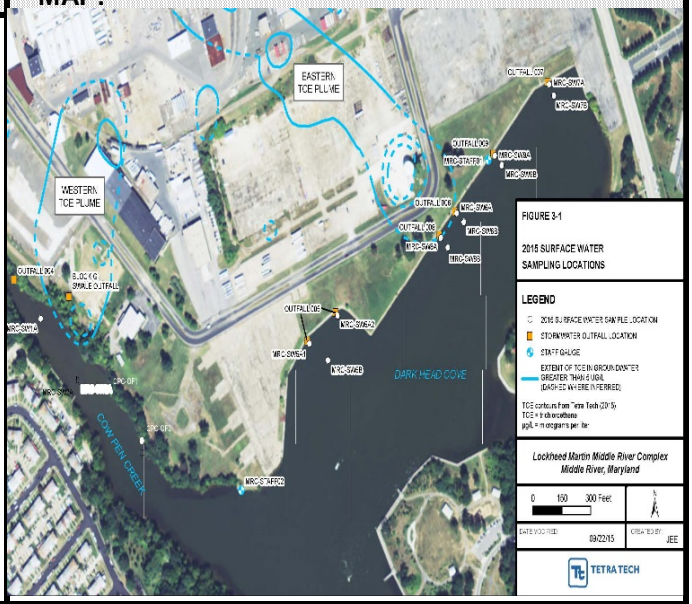
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
PCBs (680)	None	2 - 1L ambers	Yes

OBSERVATIONS / NOTES:

Water depth 11.3 feet
Hardness 666.9 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW5A2 -041017
Sample Location: MRC-SW5A2
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/L)	Salinity (ppt)	ORP mV
Date:	4/10/2017								
Time:	1220								
Depth:	1 ft below water		**8.38**	**5.55**	**15.17**	**12.08**	**11.94**	**3**	**188**
Method:	Grab								

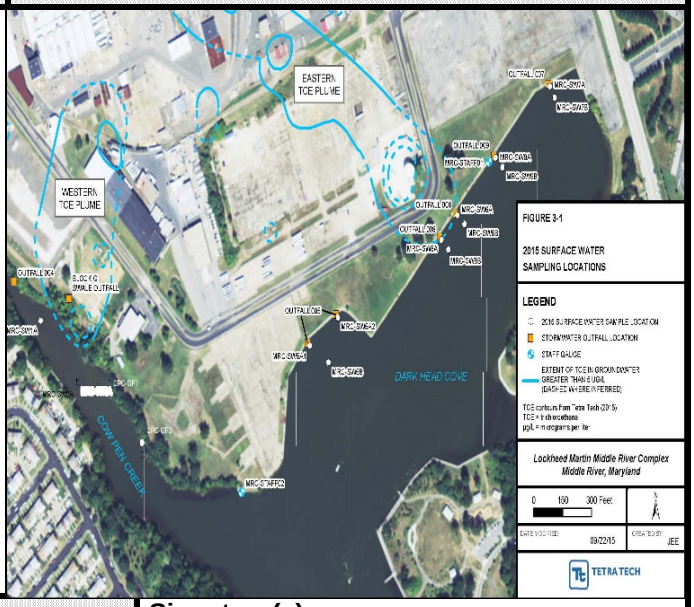
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
PCBs (680)	None	2 - 1L ambers	Yes

OBSERVATIONS / NOTES:

Water depth 12.5 feet
Hardness 649.8 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW5B -041017
Sample Location: MRC-SW5B
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1227								
Depth:	1 ft below water		**8.42**	**5.66**	**15.05**	**11.68**	**10.36**	**3**	**182**
Method:	Grab								

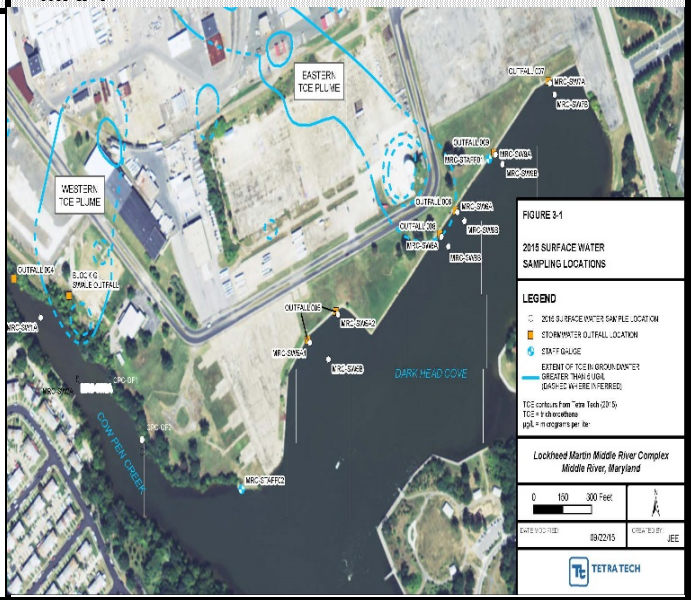
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
PCBS (680)	None	2 - 1L ambers	yes

OBSERVATIONS / NOTES:

Water depth 13.9 feet
Hardness 649.8 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW6A -041017
Sample Location: MRC-SW6A
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/L)	Salinity (ppt)	ORP mV
Date:	4/10/2017								
Time:	1256								
Depth:	1 ft below water		**8.29**	**5.63**	**15.62**	**12.26**	**14.07**	**3**	**172**
Method:	Grab								

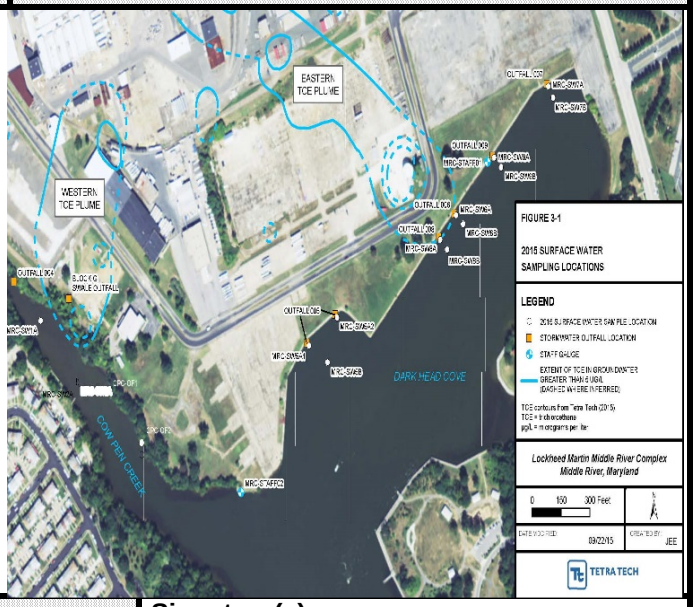
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
PCBS (680)	None	2 - 1L ambers	yes

OBSERVATIONS / NOTES:

Water depth 12.6 feet
Hardness 616.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW6B -041017
Sample Location: MRC-SW6B
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/L)	Salinity (ppt)	ORP mV
Date:	4/10/2017								
Time:	1305								
Depth:	1 ft below water		**8.48**	**5.57**	**15.66**	**10.85**	**10.25**	**3**	**163**
Method:	Grab								

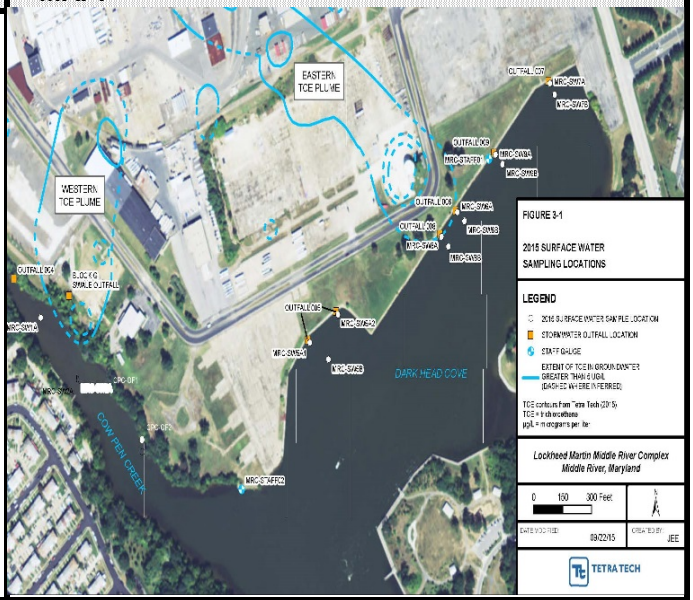
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
PCBS (680)	None	2 - 1L ambers	Yes

OBSERVATIONS / NOTES:

Water depth 11.8 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW7A -041017
Sample Location: MRC-SW7A
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1313								
Depth:	1 ft below water		**8.21**	**4.79**	**15.73**	**9.78**	**10.17**	**2.8**	**166**
Method:	Grab								

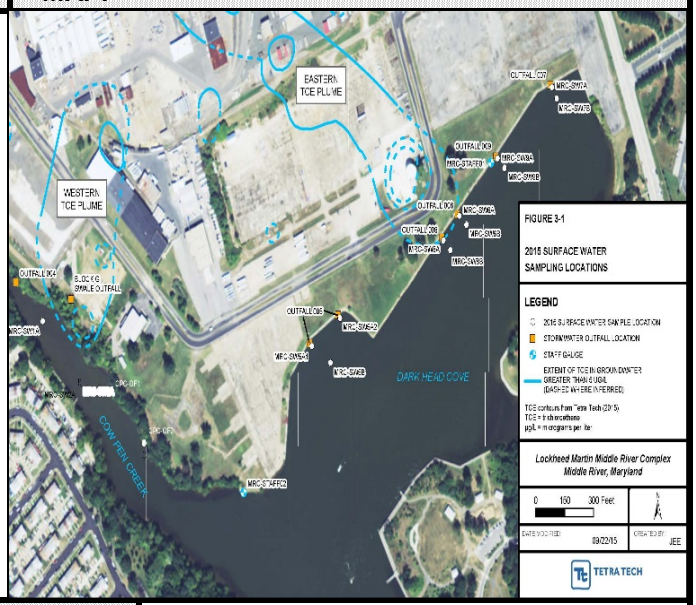
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
PCBS (680)	None	2 - 1L ambers	Yes

OBSERVATIONS / NOTES:

Water depth 12.8 feet
Hardness 581.4 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
	MRC-SWDUP2 collected for VOCs and PCBs

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW7B -041017
Sample Location: MRC-SW7B
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1325								
Depth:	1 ft below water		**8.56**	**5.63**	**16.12**	**11.54**	**9.28**	**3**	**162**
Method:	Grab								

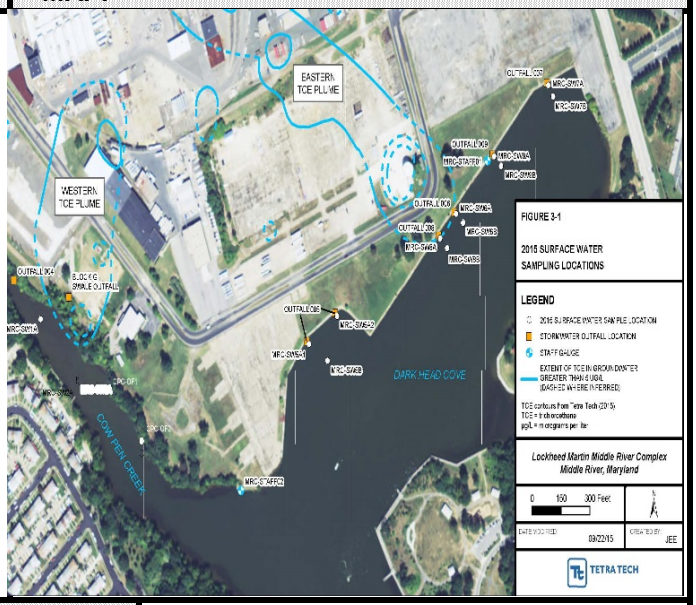
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
PCBS (680)	None	2 - 1L ambers	Yes

OBSERVATIONS / NOTES:

Water depth 12 feet
Hardness 632.7 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07489

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW8A -041017
Sample Location: MRC-SW8A
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1240								
Depth:	1 ft below water		**8.28**	**5.61**	**15.37**	**8.62**	**12.61**	**3**	**179**
Method:	Grab								

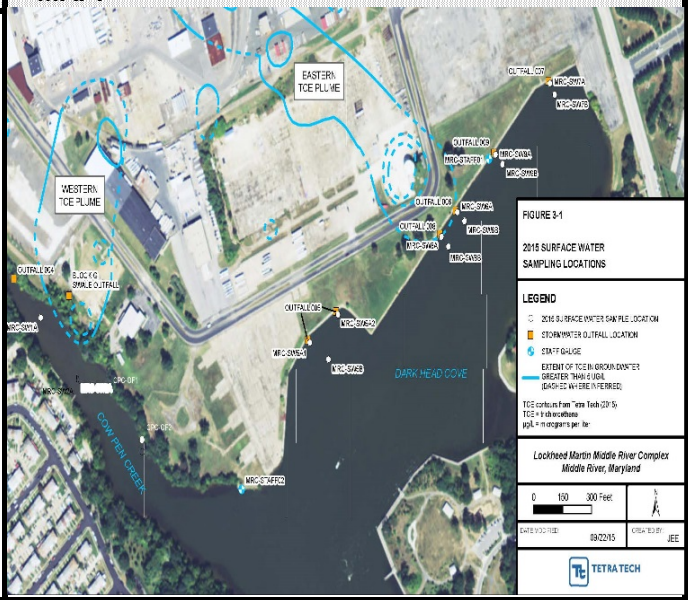
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
PCBs (680)	None	2 - 1L ambers	Yes

OBSERVATIONS / NOTES:

Water depth 10.5 feet
Hardness 632.7 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
	MRC-SWDUP-11242015

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW8B -041017
Sample Location: MRC-SW8B
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1247								
Depth:	1 ft below water		**8.41**	**5.66**	**15.44**	**11.16**	**8.73**	**3**	**188**
Method:	Grab								

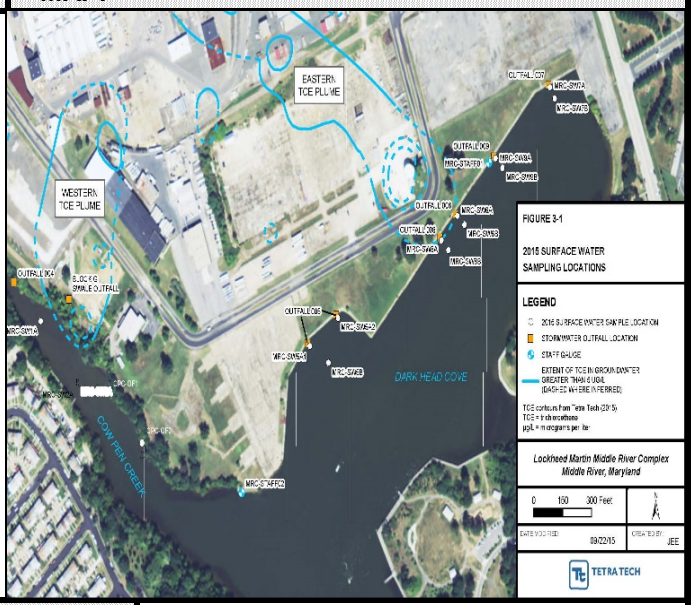
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
PCBs (680)	None	2 - 1L ambers	Yes

OBSERVATIONS / NOTES:

Water depth 14 feet
Hardness 649.8 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW9A -041017
Sample Location: MRC-SW9A
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/L)	Salinity (ppt)	ORP mV
Date:	4/10/2017								
Time:	1334								
Depth:	1 ft below water		**8.55**	**5.59**	**16.27**	**10.87**	**8.88**	**2**	**156**
Method:	Grab								

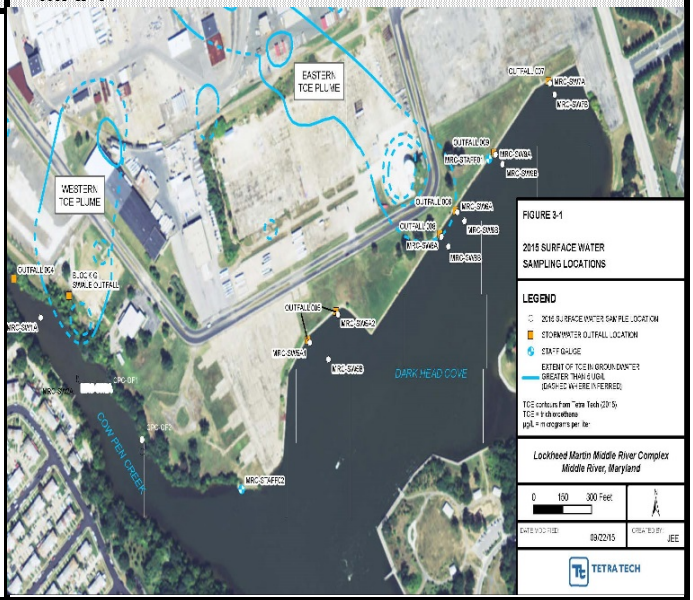
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
PCBs (680)	None	2 - 1L ambers	Yes

OBSERVATIONS / NOTES:

Water depth 6.0 feet
Hardness 632.7 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW9B -041017
Sample Location: MRC-SW9B
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1341								
Depth:	1 ft below water		**8.83**	**5.64**	**16.61**	**12.25**	**9.46**	**3**	**149**
Method:	Grab								

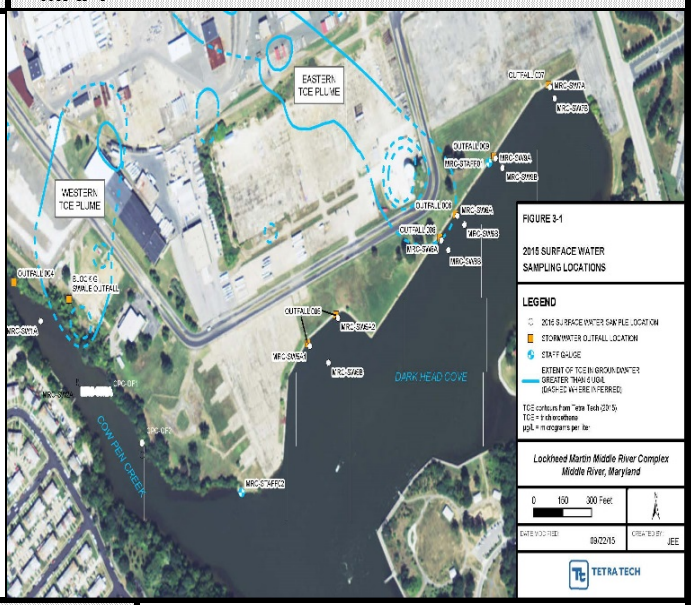
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
PCBs (680)	None	2 - 1L ambers	Yes

OBSERVATIONS / NOTES:

Water depth 9.2 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW1A -041017
Sample Location: MRC-SW1A
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/L)	Salinity (ppt)	ORP mV
Date:	4/10/2017								
Time:	1145								
Depth:	1 ft below water		**6.66**	**4.67**	**17.42**	**8.41**	**10.35**	**2.5**	**244**
Method:	Grab								

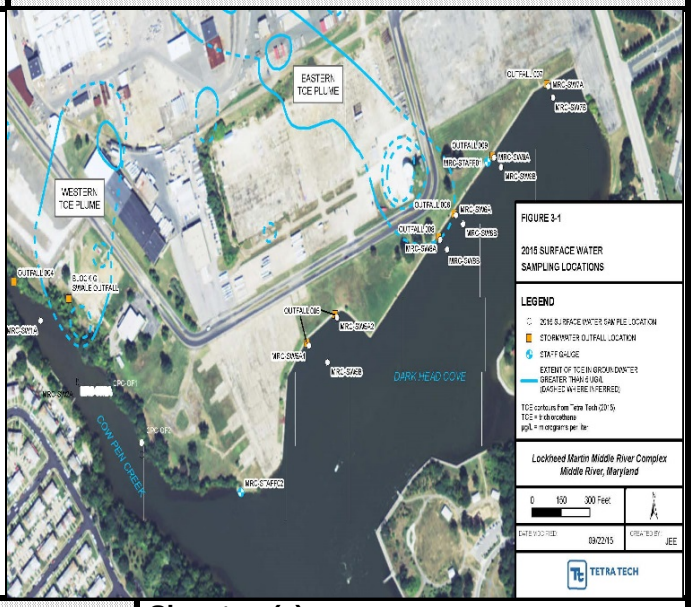
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
1,4-Dioxane (522)	HCL pH<2	2 - 250 mL ambers	Yes

OBSERVATIONS / NOTES:

Water depth 1.3 feet
Hardness 632.7 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
	MRC-SWDUP1 collected here for 1,4-dioxane

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW2A -041017
Sample Location: MRC-SW2A
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1157								
Depth:	1 ft below water		**7.57**	**5.47**	**16.34**	**10.13**	**14.56**	**2.9**	**208**
Method:	Grab								

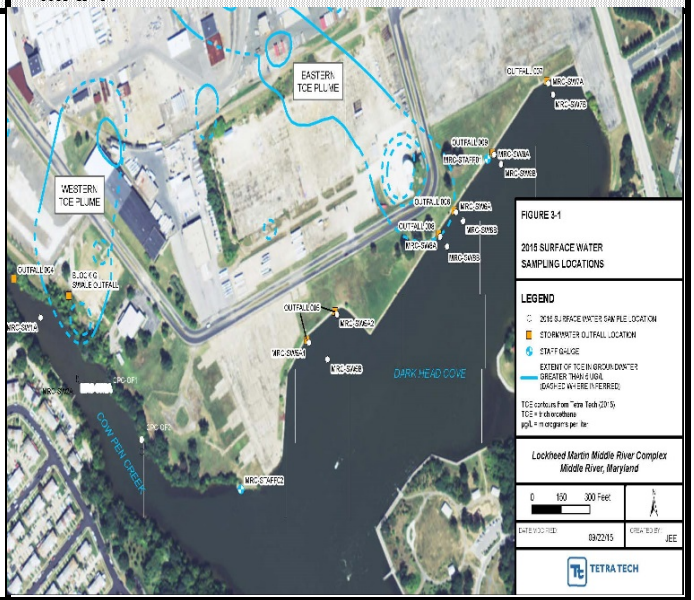
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
1,4-Dioxane (522)	HCL pH<2	2 - 250 mL ambers	Yes

OBSERVATIONS / NOTES:

Water depth 4.8 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW8A1 -041117
Sample Location: MRC-SW8A1
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/11/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	745								
Depth:	1 ft below water		**8.23**	**5.63**	**16.11**	**7.43**	**6.30**	**3.00**	**101.00**
Method:	Grab								

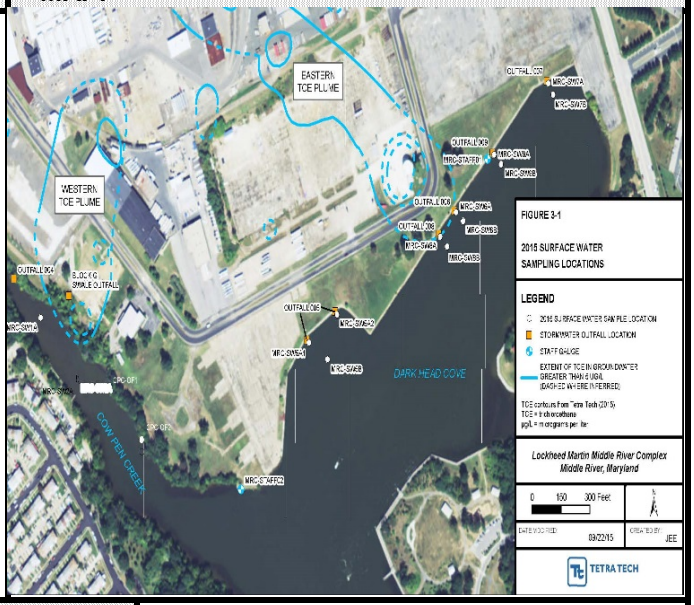
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 10.5 feet
Hardness 632.7 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW8A2 -041117
Sample Location: MRC-SW8A2
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/11/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	800								
Depth:	1 ft below water		**8.38**	**5.55**	**16.13**	**8.01**	**6.15**	**3.00**	**100.00**
Method:	Grab								

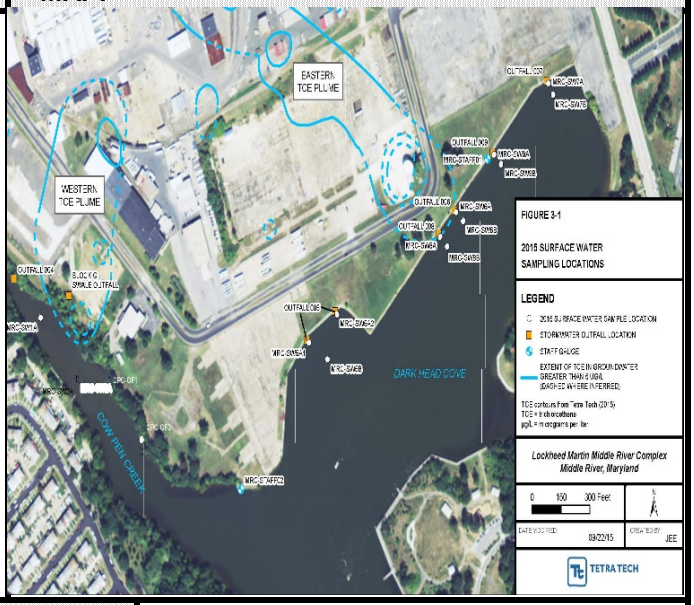
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 10.5 feet
Hardness 632.7 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW12B-S -041017
Sample Location: MRC-SW12B-S
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1423								
Depth:	1 ft below water		**8.61**	**5.67**	**16.52**	**11.68**	**7.43**	**3.10**	**142.00**
Method:	Grab								

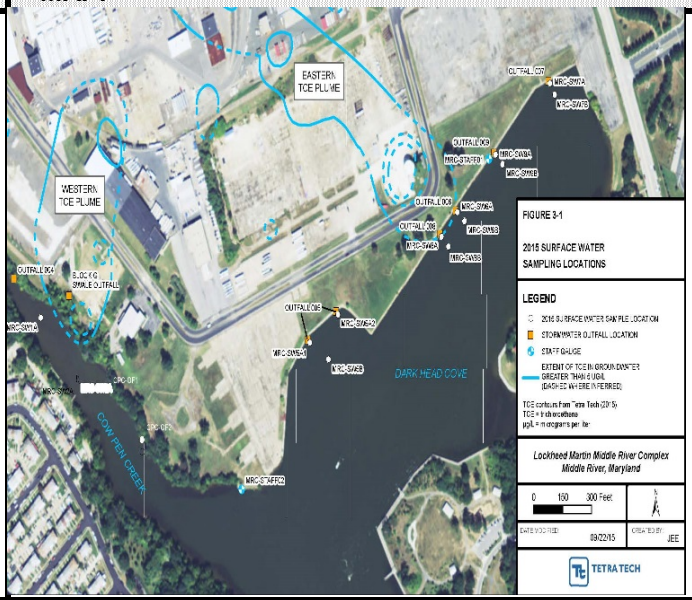
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 10.1 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW12B-D -041017
Sample Location: MRC-SW12B-D
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1425								
Depth:	1 ft above sediment		**8.36**	**5.67**	**14.40**	**12.10**	**6.67**	**3.00**	**155.00**
Method:	Grab								

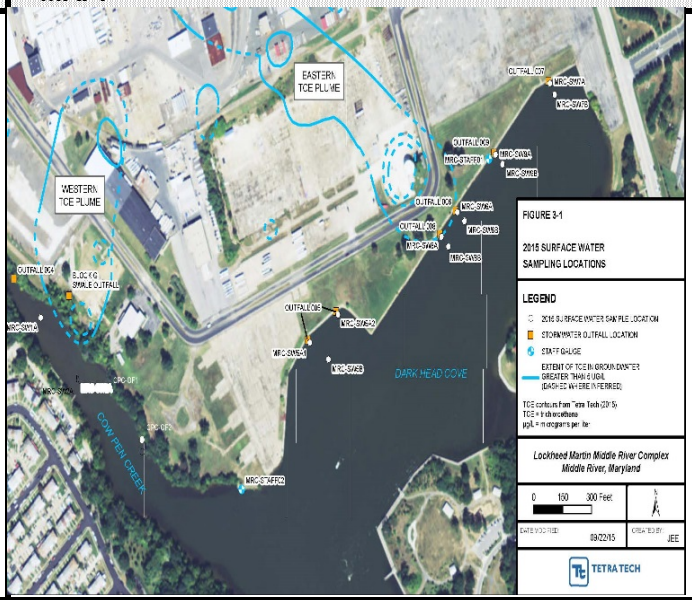
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 10.1 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW12C-S -041017
Sample Location: MRC-SW12C-S
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1430								
Depth:	1 ft below water		**8.78**	**5.64**	**16.29**	**11.62**	**8.27**	**3.00**	**136.00**
Method:	Grab								

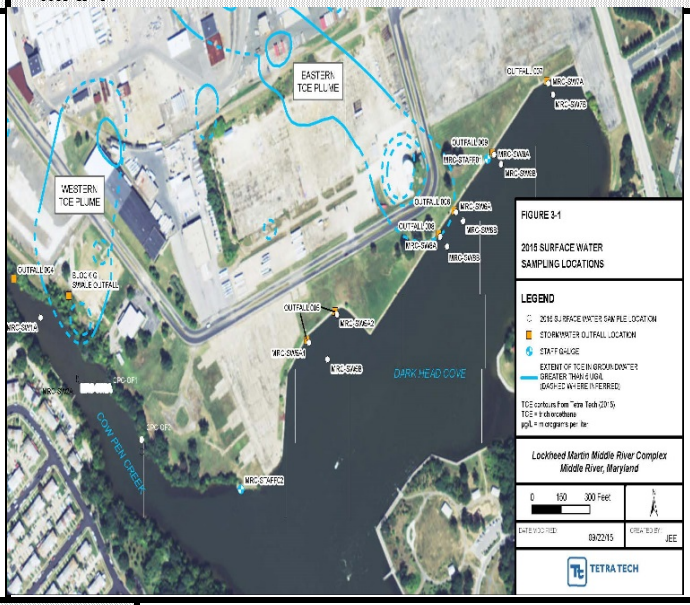
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 10.3 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW12C-D -041017
Sample Location: MRC-SW12C-D
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1433								
Depth:	1 ft above sediment		**8.23**	**5.63**	**14.03**	**16.50**	**6.69**	**3.00**	**156.00**
Method:	Grab								

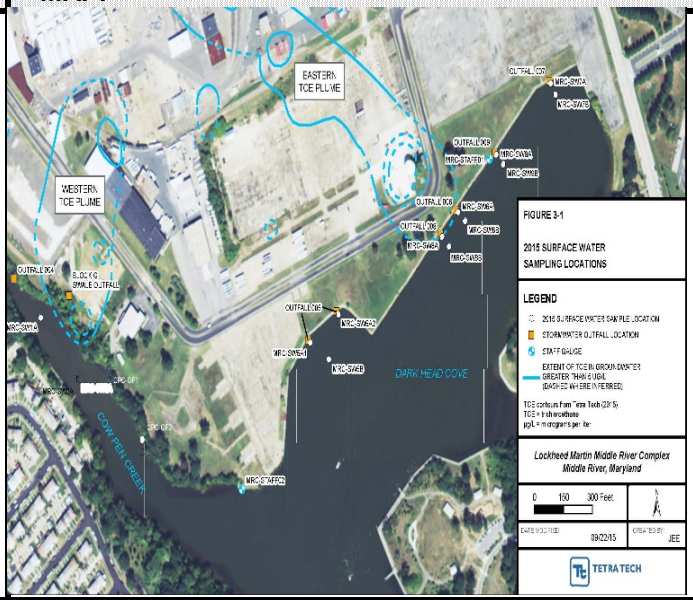
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 10.3 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW13A-S -041017
Sample Location: MRC-SW13A-S
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/L)	Salinity (ppt)	ORP mV
Date:	4/10/2017								
Time:	1408								
Depth:	1 ft below water		**8.60**	**5.63**	**16.25**	**10.06**	**8.50**	**3.00**	**134.00**
Method:	Grab								

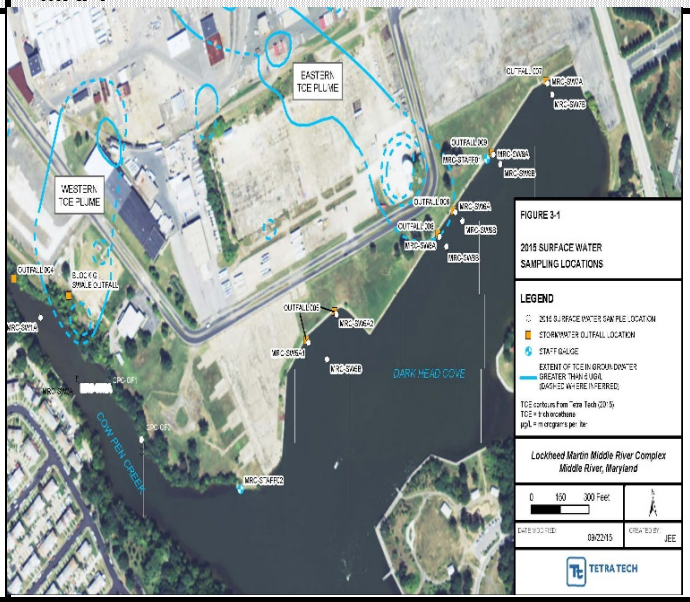
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 8.7 feet
Hardness 598.5 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW13A-D -041017
Sample Location: MRC-SW13A-D
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1410								
Depth:	1 ft above sediment		**8.28**	**5.61**	**14.36**	**12.40**	**6.99**	**3.00**	**150.00**
Method:	Grab								

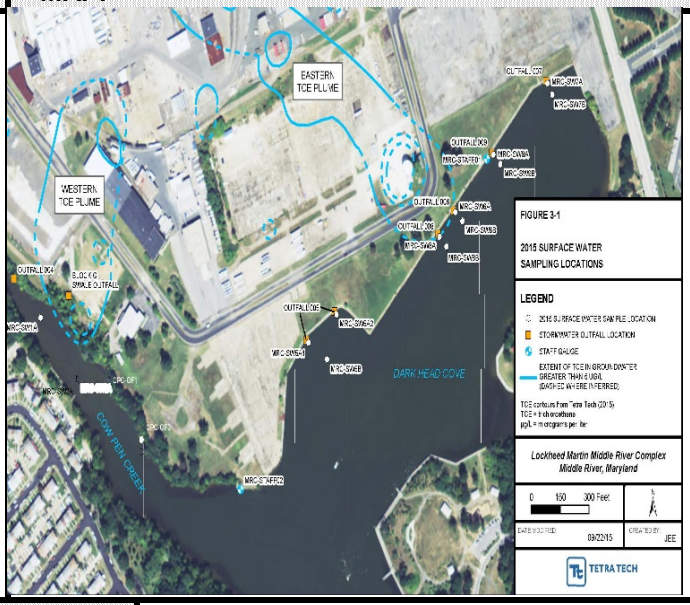
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 8.7 feet
Hardness 598.5 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW13B-S -041017
Sample Location: MRC-SW13B-S
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1415								
Depth:	1 ft below water		**8.58**	**5.67**	**16.16**	**12.17**	**8.47**	**3.10**	**139.00**
Method:	Grab								

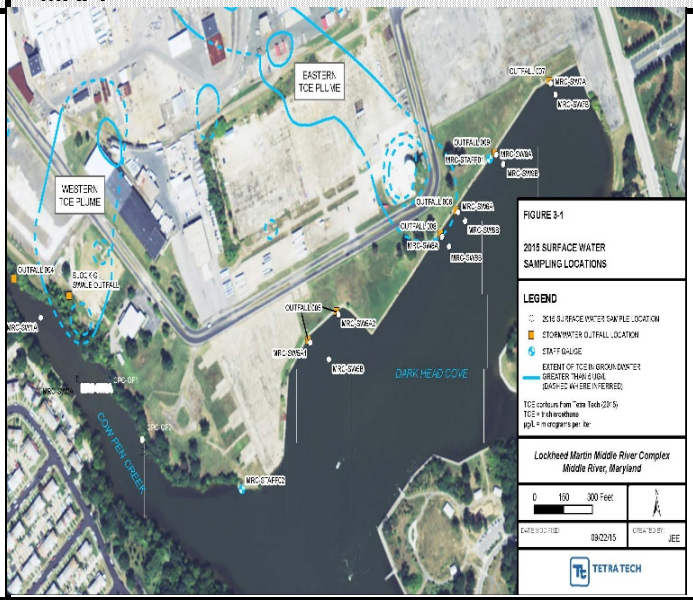
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 10.2 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW13B-D -041017
Sample Location: MRC-SW13B-D
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1417								
Depth:	1 ft above sediment		**8.17**	**5.65**	**13.99**	**16.20**	**7.04**	**3.00**	**152.00**
Method:	Grab								

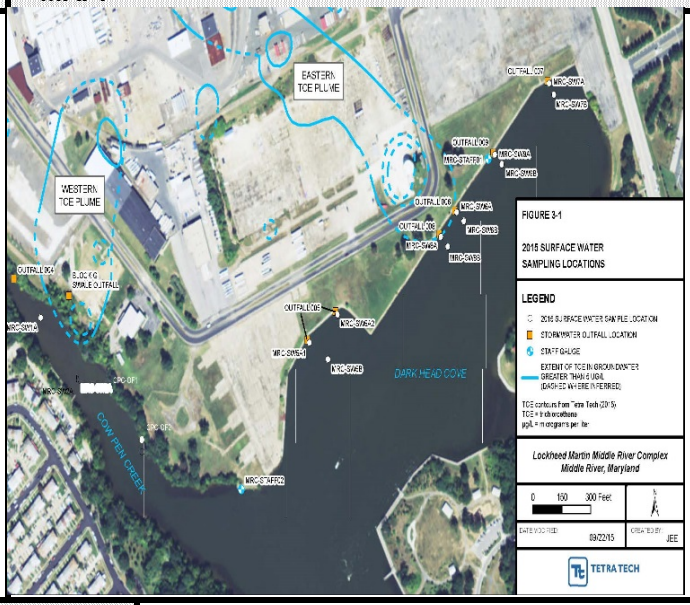
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 10.2 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW14A-S-041017
Sample Location: MRC-SW14A-S
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1436								
Depth:	1 ft below water		**8.57**	**5.68**	**16.55**	**11.27**	**8.43**	**3.10**	**143.00**
Method:	Grab								

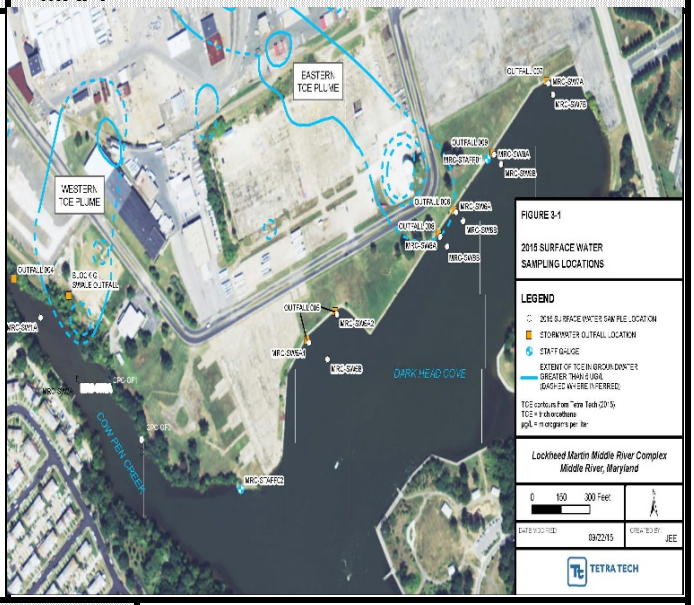
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 8.5 feet
Hardness 649.8 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW14A-D -041017
Sample Location: MRC-SW14A-D
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1439								
Depth:	1 ft above sedimen		**8.35**	**5.66**	**14.44**	**11.20**	**7.16**	**3.00**	**156.00**
Method:	Grab								

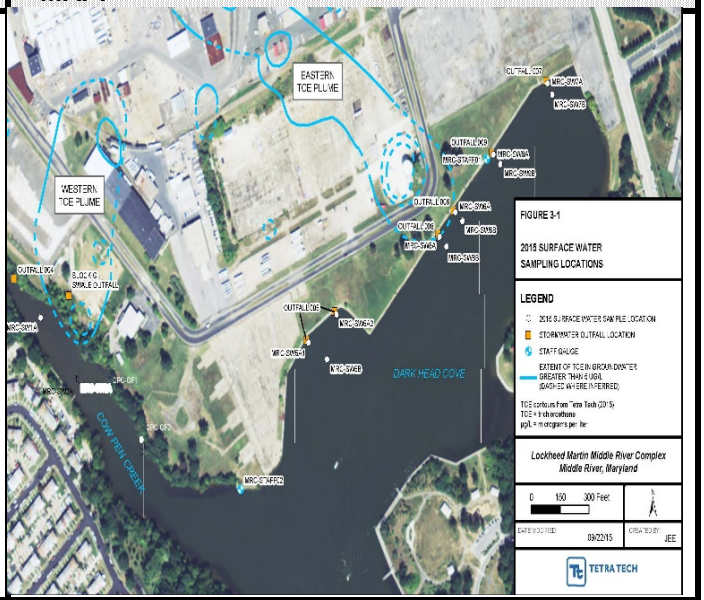
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 8.5 feet
Hardness 649.8 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW14B-S -041017
Sample Location: MRC-SW14B-S
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1442								
Depth:	1 ft below water		**8.70**	**5.69**	**16.40**	**10.86**	**8.04**	**3.10**	**143.00**
Method:	Grab								

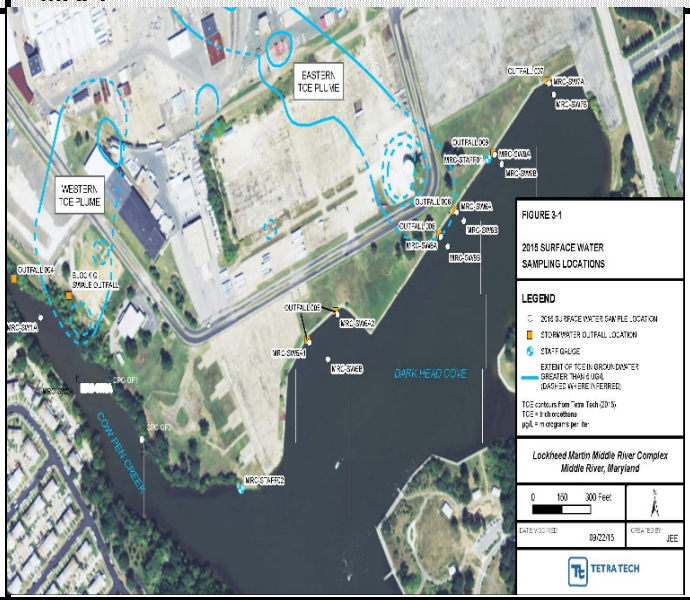
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 10.5 feet
Hardness 684 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW14B-D -041017
Sample Location: MRC-SW14B-D
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1445								
Depth:	1 ft above sediment		**8.21**	**5.71**	**13.31**	**14.70**	**5.98**	**3.10**	**157.00**
Method:	Grab								

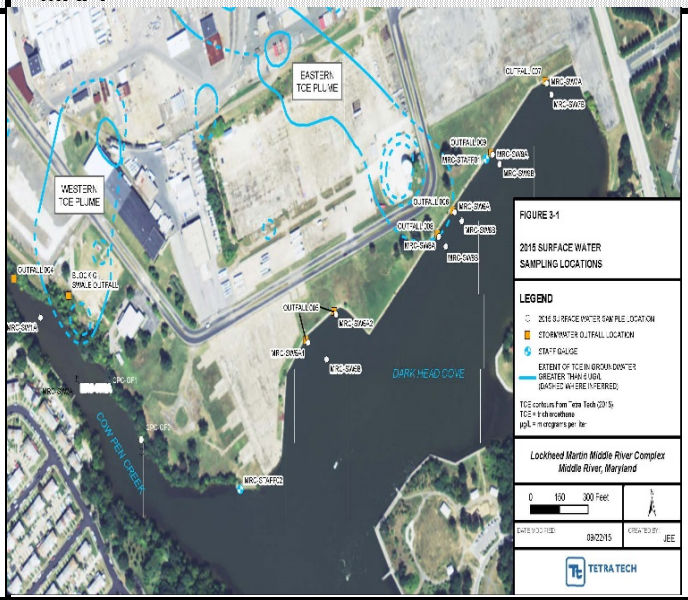
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 10.5 feet
Hardness 684 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW15A-S -041017
Sample Location: MRC-SW15A-S
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1359								
Depth:	1 ft below water		**8.52**	**5.68**	**16.21**	**12.31**	**8.73**	**3.10**	**120.00**
Method:	Grab								

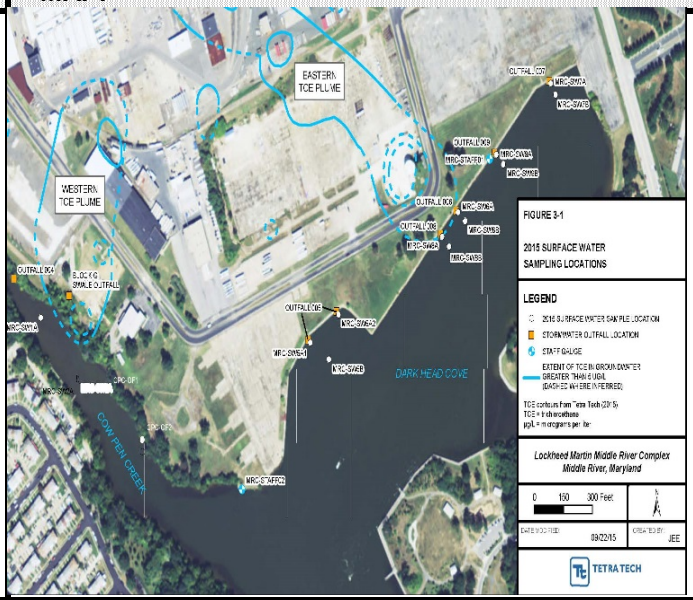
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 8 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW15A-D -041017
Sample Location: MRC-SW15A-D
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/L)	Salinity (ppt)	ORP mV
Date:	4/10/2017								
Time:	1402								
Depth:	1 ft above sediment		**8.34**	**5.62**	**14.40**	**16.90**	**7.53**	**3.00**	**131.00**
Method:	Grab								

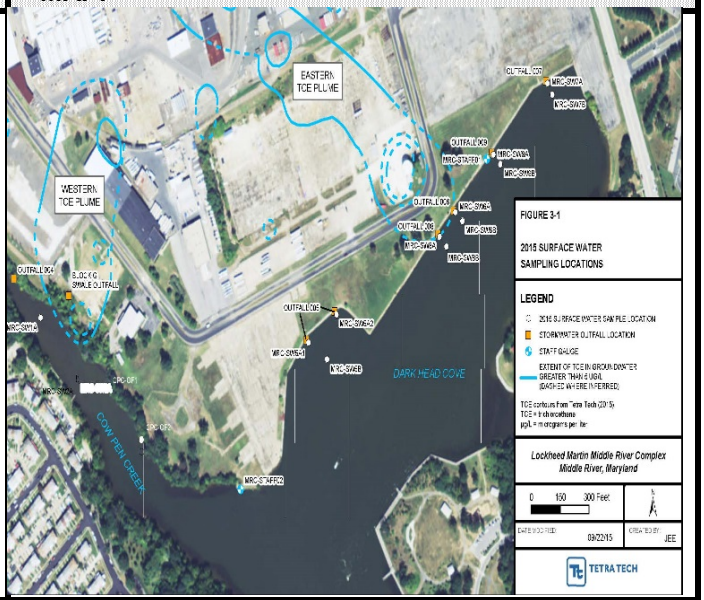
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 8 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW16A-S -041017
Sample Location: MRC-SW16A-S
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1352								
Depth:	1 ft below water		**8.65**	**5.66**	**16.49**	**10.55**	**8.76**	**3.10**	**152.00**
Method:	Grab								

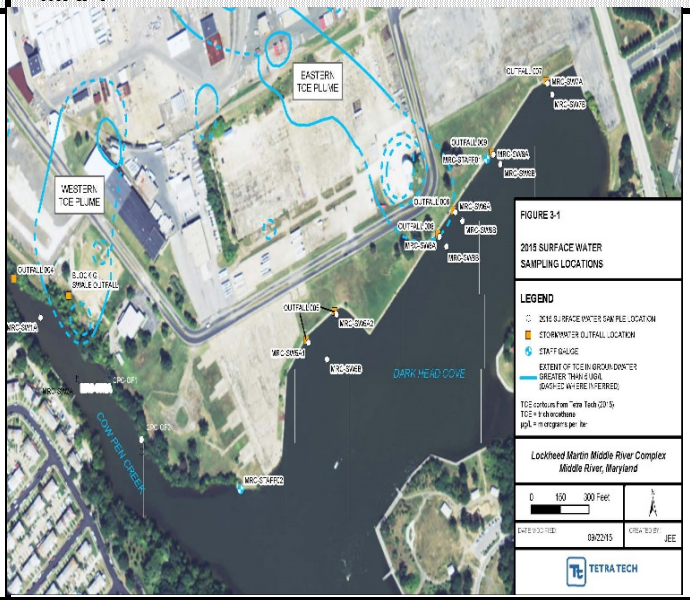
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 12 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SURFACE WATER SAMPLE LOG SHEET

Project Site Name: Dark Head Cove, Middle River
Project No.: 112IC07776

[] Stream
[] Spring
[] Pond
[] Lake
[X] Other: Tidal creek - freshwater
[] QA Sample Type:

Sample ID No.: MRC-SW16A-D -041017
Sample Location: MRC-SW16A-D
Sampled By: J. Mullis
C.O.C. No.:

Type of Sample:
[x] Low Concentration
[] High Concentration

SAMPLING DATA:

		Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	ORP
Date:	4/10/2017	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/L)	(ppt)	mV
Time:	1355								
Depth:	1 ft above sediment		**8.21**	**5.66**	**13.21**	**12.31**	**6.12**	**3.00**	**164.00**
Method:	Grab								

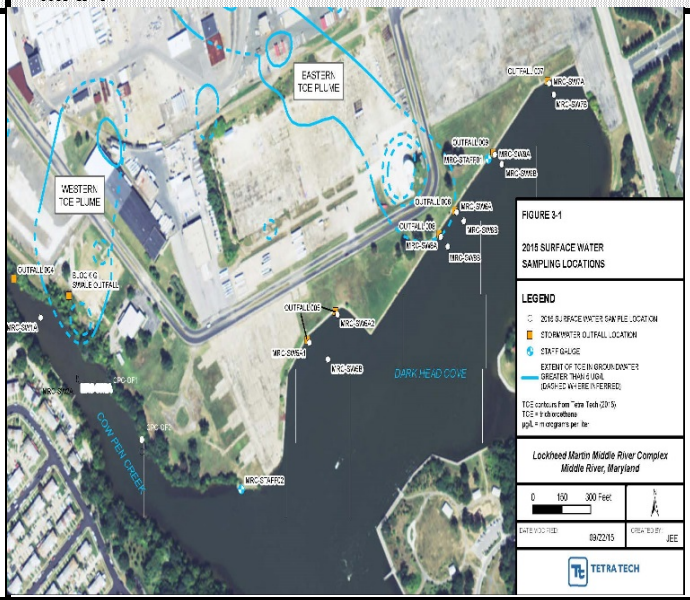
SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOCs	HCL pH<2	3 - 40 mL glass vials	Yes
-		-	

OBSERVATIONS / NOTES:

Water depth 12 feet
Hardness 615.6 mg/L CaCO3

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

APPENDIX B—DATA-VALIDATION REPORT (ON CD)

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JUNE 21, 2017**

FROM: **J. SAMCHUCK** **COPIES:** **DV FILE**

SUBJECT: **DATA VALIDATION – VOC/PCB HOMOLOGUES/1,4-DIOXANE**
LOCKHEED MARTIN CORPORATION (LMC) –
SURFACE WATER
SAMPLE DELIVERY GROUP (SDG) 240-77949-1

SAMPLES: 37/Aqueous/

MRC-SW12B-D-041017	MRC-SW12B-S-041017	MRC-SW12C-D-041017
MRC-SW12C-S-041017	MRC-SW13A-D-041017	MRC-SW13A-S-041017
MRC-SW13B-D-041017	MRC-SW13B-S-041017	MRC-SW14A-D-041017
MRC-SW14A-S-041017	MRC-SW14B-D-041017	MRC-SW14B-S-041017
MRC-SW15A-D-041017	MRC-SW15A-S-041017	MRC-SW16A-D-041017
MRC-SW16A-S-041017	MRC-SW1A-041017	MRC-SW2A-041017
MRC-SW5A1-041017	MRC-SW5A2-041017	MRC-SW5B-041017
MRC-SW6A-041017	MRC-SW6B-041017	MRC-SW7A-041017
MRC-SW7B-041017	MRC-SW8A-041017	MRC-SW8A1-041117
MRC-SW8A2-041117	MRC-SW8B-041017	MRC-SW9A-041017
MRC-SW9B-041017	MRC-SW1A-041017	MRC-SW2A-041017
MRC-SWDUP1-041017	MRC-SWDUP2-041017	TB-041017
TB-041117		

Overview

The sample set for LMC-MRC, SDG 240-77949-1 consisted of thirty five (35) aqueous environmental samples and two (2) trip blanks. All aqueous environmental samples were analyzed for volatile organic compounds (VOC). All samples MRC-SW1A-041017, MRC-SW2A-041017 and MRC-SWDUP1-041017 were analyzed for 1,4-dioxane only. Twelve samples were analyzed for polychlorinated biphenyls (PCBs). Two field duplicate sample pairs (MRC-SWDUP2-041017/ MRC-SW7A-041017) and (MRC-SWDUP1-041017/ MRC-SW1A-041017) were included in this SDG.

The samples were collected by Tetra Tech on April 10 and 11, 2017 and analyzed by TestAmerica, Inc for VOCs, 1,4-dioxane, and PCBs. All analyses were conducted in accordance with analytical and reporting protocols for EPA 522, EPA Method 680, and SW846 Method 8260C for VOC.

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

Major

- None.

Minor

- The matrix spike/matrix spike duplicate recovery for sample MRC-SW1A-041017 was below the lower control limit for 1,4-dioxane. The detected result was qualified as estimated, (J).

- VOC continuing calibration percent difference (%D) exceeded the quality control (QC) limit (20%) on 4/14/2017 at 1204 on instrument A3UX16 for 2-butanone and 4-methyl-2-pentanone. All results for these parameters in the affected samples were nondetected and were qualified as estimated (UJ).

- VOC continuing calibration %D exceeded the 20% QC limit on 4/13/2017 at 942 on instrument A3UX9 for carbon disulfide and 1,2-dibromo-3-chloropropane. All results for these parameters in the affected samples were nondetected and were qualified as estimated (UJ).

- VOC continuing calibration percent difference (%D) exceeded the quality control (QC) limit (20%) on 4/14/2017 at 835 on instrument A3U X9 for carbon disulfide. All results for these parameters in the affected samples were nondetected and were qualified as estimated (UJ).

- VOC continuing calibration percent difference (%D) exceeded the quality control (QC) limit (20%) on 4/17/2017 at 926 on instrument A3UX9 for carbon disulfide. All results for these parameters in the affected samples were nondetected and were qualified as estimated (UJ).

- The following analytes were detected in the laboratory method blanks at the following maximum concentrations:

Analyte	Maximum Concentration (ug/L)	Reporting Limit (RL) (> or <)
Methylene chloride[1]	1.79	<
Methylene chloride[2]	0.917	<
2-Butanone[3]	1.16	<
Acetone[3]	7.14	<
Methylene chloride[4]	0.693	<
Acetone[5]	1.9 ug/L	<

[1] Maximum concentration in the method blank on 4/13/2017 instrument A3UX9.
[2] Maximum concentration in method blank on 4/14/17 instrument A3UX9.
[3] Maximum concentration in method blank on 4/14/2017 instrument A3UX16.
[4] Maximum concentration in the method blank on 4/17/2017 instrument A3UX9.
[5] Maximum concentration in the trip blanks.

Dilution factor, if applicable, was taken into consideration when evaluating for blank contamination. Detected results reported below the RL were qualified as non-detected, (U), due to blank contamination.

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

Notes

Non-detected results were reported to the MDL.

All method quality control parameters met acceptance criteria for Method 522.

All method quality control parameters met acceptance criteria for Method 680.

Executive Summary

Laboratory Performance: Minor calibration exceedances were noted for carbon disulfide, 1,2-dibromo-3-chloropropane. Methylene chloride, acetone, and 2-butanone were present in laboratory method blanks.

Other Factors Affecting Data Quality: A matrix spike recovery for 1,4-dioxane was below the lower quality control limit but was within 5% of the lower limit.

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

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

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

Appendix A

Qualified Analytical Results

PROJ_NO: 07776	NSAMPLE	MRC-SW12B-D-041017			MRC-SW12B-S-041017			MRC-SW12C-D-041017			MRC-SW12C-S-041017		
SDG: 240-77949-1	LAB_ID	240-77949-16			240-77949-15			240-77949-18			240-77949-17		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	0.34	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW13A-D-041017			MRC-SW13A-S-041017			MRC-SW13B-D-041017			MRC-SW13B-S-041017		
SDG: 240-77949-1	LAB_ID	240-77949-20			240-77949-19			240-77949-22			240-77949-21		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U	B	1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	0.34	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW14A-D-041017			MRC-SW14A-S-041017			MRC-SW14B-D-041017			MRC-SW14B-S-041017		
SDG: 240-77949-1	LAB_ID	240-77949-24			240-77949-23			240-77949-26			240-77949-25		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.43	J	P	0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	UJ	C	1	UJ	C	1	UJ	C	1	UJ	C
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	UJ	C	0.71	UJ	C	0.71	UJ	C	0.71	UJ	C
ACETONE		3.1	U	A	5.5	U	A	2.3	U	A	3.9	U	A
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW15A-D-041017			MRC-SW15A-S-041017			MRC-SW16A-D-041017			MRC-SW16A-S-041017		
SDG: 240-77949-1	LAB_ID	240-77949-28			240-77949-27			240-77949-30			240-77949-29		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	UJ	C	1	UJ	C	1	UJ	C	1	UJ	C
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	UJ	C	0.71	UJ	C	0.71	UJ	C	0.71	UJ	C
ACETONE		2	U	A	2.9	U	A	1.8	U		2.3	U	A
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW1A-041017			MRC-SW2A-041017			MRC-SW5A1-041017			MRC-SW5A2-041017		
SDG: 240-77949-1	LAB_ID	240-77949-1			240-77949-2			240-77949-3			240-77949-4		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	UJ	C	0.47	UJ	C	0.47	UJ	C	0.47	UJ	C
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	0.34	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW5B-041017			MRC-SW6A-041017			MRC-SW6B-041017			MRC-SW7A-041017		
SDG: 240-77949-1	LAB_ID	240-77949-5			240-77949-6			240-77949-7			240-77949-8		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.35	J	P	0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		2.2	U	B
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	0.34	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW7B-041017			MRC-SW8A-041017			MRC-SW8A1-041117			MRC-SW8A2-041117		
SDG: 240-77949-1	LAB_ID	240-77949-9			240-77949-10			240-77962-2			240-77962-3		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/11/2017			4/11/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	0.34	UJ	C	0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW8B-041017			MRC-SW9A-041017			MRC-SW9B-041017			MRC-SWDUP2-041017		
SDG: 240-77949-1	LAB_ID	240-77949-12			240-77949-13			240-77949-14			240-77949-33		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2-BUTANONE		1	U		1	U		1	U		1	UJ	C
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	UJ	C
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	UJ	C	0.34	UJ	C	0.34	UJ	C	0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	TB-041017			TB-041117		
SDG: 240-77949-1	LAB_ID	240-77949-31			240-77962-1		
FRACTION: OV	SAMP_DATE	4/10/2017			4/11/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U	
1,1,2-TRICHLOROETHANE		0.34	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U	
2-BUTANONE		1	UJ	C	1	U	
2-HEXANONE		1.2	U		1.2	U	
4-METHYL-2-PENTANONE		0.71	UJ	C	0.71	U	
ACETONE		1.9	J	P	1.9	J	P
BENZENE		0.28	U		0.28	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U	
CARBON DISULFIDE		0.34	U		0.34	UJ	C
CARBON TETRACHLORIDE		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U	
CHLOROETHANE		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U	
CYCLOHEXANE		0.44	U		0.44	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U	
ETHYLBENZENE		0.26	U		0.26	U	
ISOPROPYLBENZENE		0.21	U		0.21	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW12B-D-041017			MRC-SW12B-S-041017			MRC-SW12C-D-041017			MRC-SW12C-S-041017		
SDG: 240-77949-1	LAB_ID	240-77949-16			240-77949-15			240-77949-18			240-77949-17		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.77	J	P	0.37	J	P	0.33	U		0.36	J	P
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW13A-D-041017			MRC-SW13A-S-041017			MRC-SW13B-D-041017			MRC-SW13B-S-041017		
SDG: 240-77949-1	LAB_ID	240-77949-20			240-77949-19			240-77949-22			240-77949-21		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		1.4			0.36	J	P	0.69	J	P	0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW14A-D-041017			MRC-SW14A-S-041017			MRC-SW14B-D-041017			MRC-SW14B-S-041017		
SDG: 240-77949-1	LAB_ID	240-77949-24			240-77949-23			240-77949-26			240-77949-25		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.86	J	P	0.39	J	P	0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW15A-D-041017			MRC-SW15A-S-041017			MRC-SW16A-D-041017			MRC-SW16A-S-041017		
SDG: 240-77949-1	LAB_ID	240-77949-28			240-77949-27			240-77949-30			240-77949-29		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		1.2			3.1			2.4			0.82	J	P
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW1A-041017			MRC-SW2A-041017			MRC-SW5A1-041017			MRC-SW5A2-041017		
SDG: 240-77949-1	LAB_ID	240-77949-1			240-77949-2			240-77949-3			240-77949-4		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.28	J	P	0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		0.33	U		0.45	J	P	0.6	J	P
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW5B-041017			MRC-SW6A-041017			MRC-SW6B-041017			MRC-SW7A-041017		
SDG: 240-77949-1	LAB_ID	240-77949-5			240-77949-6			240-77949-7			240-77949-8		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.35	J	P	0.93	J	P	0.94	J	P	0.48	J	P
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW7B-041017			MRC-SW8A-041017			MRC-SW8A1-041117			MRC-SW8A2-041117		
SDG: 240-77949-1	LAB_ID	240-77949-9			240-77949-10			240-77962-2			240-77962-3		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/11/2017			4/11/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.56	J	P	0.78	J	P	3.2			3.8		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW8B-041017			MRC-SW9A-041017			MRC-SW9B-041017			MRC-SWDUP2-041017		
SDG: 240-77949-1	LAB_ID	240-77949-12			240-77949-13			240-77949-14			240-77949-33		
FRACTION: OV	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.61	J	P	0.34	J	P	0.37	J	P	0.47	J	P
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	TB-041017			TB-041117		
SDG: 240-77949-1	LAB_ID	240-77949-31			240-77962-1		
FRACTION: OV	SAMP_DATE	4/10/2017			4/11/2017		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1.4	U		1.4	U	
METHYL CYCLOHEXANE		0.45	U		0.45	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U	
STYRENE		0.23	U		0.23	U	
TETRACHLOROETHENE		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U	
VINYL CHLORIDE		0.45	U		0.45	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW1A-041017			MRC-SW2A-041017			MRC-SWDUP1-041017		
SDG: 240-77949-1	LAB_ID	240-77949-1			240-77949-2			240-77949-32		
FRACTION: OS	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.096	J	DP	0.097	J	P	0.1	J	P

PROJ_NO: 07776	NSAMPLE	MRC-SW5A1-041017			MRC-SW5A2-041017			MRC-SW5B-041017			MRC-SW6A-041017		
SDG: 240-77949-1	LAB_ID	240-77949-3			240-77949-4			240-77949-5			240-77949-6		
FRACTION: PCB	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		0.068	U		0.069	U		0.072	U		0.067	U	
DICHLOROBIPHENYLS		0.0052	U		0.0053	U		0.0055	U		0.0052	U	
HEPTACHLOROBIPHENYLS		0.029	U		0.029	U		0.031	U		0.029	U	
HEXACHLOROBIPHENYLS		0.015	U		0.015	U		0.015	U		0.014	U	
MONOCHLOROBIPHENYLS		0.0054	U		0.0055	U		0.0058	U		0.0054	U	
NONACHLOROBIPHENYLS		0.048	U		0.048	U		0.05	U		0.047	U	
OCTACHLOROBIPHENYLS		0.037	U		0.037	U		0.039	U		0.036	U	
PENTACHLOROBIPHENYLS		0.014	U		0.014	U		0.014	U		0.013	U	
TETRACHLOROBIPHENYLS		0.013	U		0.013	U		0.013	U		0.012	U	
TRICHLOROBIPHENYLS		0.0063	U		0.0064	U		0.0067	U		0.0062	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW6B-041017			MRC-SW7A-041017			MRC-SW7B-041017			MRC-SW8A-041017		
SDG: 240-77949-1	LAB_ID	240-77949-7			240-77949-8			240-77949-9			240-77949-10		
FRACTION: PCB	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		0.067	U		0.067	U		0.067	U		0.068	U	
DICHLOROBIPHENYLS		0.0052	U		0.0052	U		0.0052	U		0.0052	U	
HEPTACHLOROBIPHENYLS		0.029	U		0.029	U		0.029	U		0.029	U	
HEXACHLOROBIPHENYLS		0.014	U		0.014	U		0.014	U		0.015	U	
MONOCHLOROBIPHENYLS		0.0054	U		0.0054	U		0.0054	U		0.0054	U	
NONACHLOROBIPHENYLS		0.047	U		0.047	U		0.047	U		0.048	U	
OCTACHLOROBIPHENYLS		0.036	U		0.037	U		0.036	U		0.037	U	
PENTACHLOROBIPHENYLS		0.013	U		0.013	U		0.013	U		0.014	U	
TETRACHLOROBIPHENYLS		0.012	U		0.012	U		0.012	U		0.013	U	
TRICHLOROBIPHENYLS		0.0062	U		0.0062	U		0.0062	U		0.0063	U	

PROJ_NO: 07776	NSAMPLE	MRC-SW8B-041017			MRC-SW9A-041017			MRC-SW9B-041017			MRC-SWDUP2-041017		
SDG: 240-77949-1	LAB_ID	240-77949-12			240-77949-13			240-77949-14			240-77949-33		
FRACTION: PCB	SAMP_DATE	4/10/2017			4/10/2017			4/10/2017			4/10/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DECACHLOROBIPHENYL		0.067	U		0.067	U		0.067	U		0.067	U	
DICHLOROBIPHENYLS		0.0052	U		0.0052	U		0.0052	U		0.0052	U	
HEPTACHLOROBIPHENYLS		0.029	U		0.029	U		0.029	U		0.029	U	
HEXACHLOROBIPHENYLS		0.014	U		0.014	U		0.014	U		0.014	U	
MONOCHLOROBIPHENYLS		0.0054	U		0.0054	U		0.0054	U		0.0054	U	
NONACHLOROBIPHENYLS		0.047	U		0.047	U		0.047	U		0.047	U	
OCTACHLOROBIPHENYLS		0.036	U		0.036	U		0.036	U		0.037	U	
PENTACHLOROBIPHENYLS		0.013	U		0.013	U		0.013	U		0.013	U	
TETRACHLOROBIPHENYLS		0.012	U		0.012	U		0.012	U		0.013	U	
TRICHLOROBIPHENYLS		0.0062	U		0.0062	U		0.0062	U		0.0063	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW1A-041017 | Lab Sample ID: 240-77949-1

Matrix: Water | Lab File ID: UX963129.D

Analysis Method: 8260C | Date Collected: 04/10/2017 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 13:54

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274539 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW1A-041017 | Lab Sample ID: 240-77949-1

Matrix: Water | Lab File ID: UX963129.D

Analysis Method: 8260C | Date Collected: 04/10/2017 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 13:54

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274539 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW2A-041017 | Lab Sample ID: 240-77949-2

Matrix: Water | Lab File ID: UX963130.D

Analysis Method: 8260C | Date Collected: 04/10/2017 11:57

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 14:18

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274539 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW2A-041017 | Lab Sample ID: 240-77949-2

Matrix: Water | Lab File ID: UX963130.D

Analysis Method: 8260C | Date Collected: 04/10/2017 11:57

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 14:18

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274539 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-124
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW5A1-041017 | Lab Sample ID: 240-77949-3

Matrix: Water | Lab File ID: UX963131.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:09

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 14:42

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274539 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW5A1-041017 | Lab Sample ID: 240-77949-3

Matrix: Water | Lab File ID: UX963131.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:09

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 14:42

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.45	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.28	J	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW5A2-041017 | Lab Sample ID: 240-77949-4

Matrix: Water | Lab File ID: UX963132.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 15:06

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274539 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW5A2-041017 | Lab Sample ID: 240-77949-4

Matrix: Water | Lab File ID: UX963132.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:20

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 15:06

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.60	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW5B-041017 | Lab Sample ID: 240-77949-5

Matrix: Water | Lab File ID: UX963164.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:27

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 11:16

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW5B-041017 | Lab Sample ID: 240-77949-5

Matrix: Water | Lab File ID: UX963164.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:27

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 11:16

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.35	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW6A-041017 | Lab Sample ID: 240-77949-6

Matrix: Water | Lab File ID: UX963165.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:56

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 11:40

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW6A-041017 | Lab Sample ID: 240-77949-6

Matrix: Water | Lab File ID: UX963165.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:56

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 11:40

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.93	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-124
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW6B-041017 | Lab Sample ID: 240-77949-7

Matrix: Water | Lab File ID: UX963166.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 12:04

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW6B-041017 | Lab Sample ID: 240-77949-7

Matrix: Water | Lab File ID: UX963166.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 12:04

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.94	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW7A-041017 | Lab Sample ID: 240-77949-8

Matrix: Water | Lab File ID: UX963167.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:13

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 12:27

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW7A-041017 | Lab Sample ID: 240-77949-8

Matrix: Water | Lab File ID: UX963167.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:13

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 12:27

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.48	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-124
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW7B-041017 | Lab Sample ID: 240-77949-9

Matrix: Water | Lab File ID: UX963168.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 12:52

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW7B-041017 | Lab Sample ID: 240-77949-9

Matrix: Water | Lab File ID: UX963168.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 12:52

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.56	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW8A-041017 | Lab Sample ID: 240-77949-10

Matrix: Water | Lab File ID: UX963169.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 13:16

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW8A-041017 | Lab Sample ID: 240-77949-10

Matrix: Water | Lab File ID: UX963169.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:40

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 13:16

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.78	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-124
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW8B-041017 | Lab Sample ID: 240-77949-12

Matrix: Water | Lab File ID: UX963171.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 14:04

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW8B-041017 | Lab Sample ID: 240-77949-12

Matrix: Water | Lab File ID: UX963171.D

Analysis Method: 8260C | Date Collected: 04/10/2017 12:50

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 14:04

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.61	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW9A-041017 | Lab Sample ID: 240-77949-13

Matrix: Water | Lab File ID: UX963172.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:34

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 14:28

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW9A-041017 | Lab Sample ID: 240-77949-13

Matrix: Water | Lab File ID: UX963172.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:34

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 14:28

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.34	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW9B-041017 | Lab Sample ID: 240-77949-14

Matrix: Water | Lab File ID: UX963173.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:41

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 14:51

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW9B-041017 | Lab Sample ID: 240-77949-14

Matrix: Water | Lab File ID: UX963173.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:41

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 14:51

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.37	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	89		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW12B-S-041017 | Lab Sample ID: 240-77949-15

Matrix: Water | Lab File ID: UX963174.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:23

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 15:16

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW12B-S-041017 | Lab Sample ID: 240-77949-15

Matrix: Water | Lab File ID: UX963174.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:23

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 15:16

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.37	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	89		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW12B-D-041017 | Lab Sample ID: 240-77949-16

Matrix: Water | Lab File ID: UX963175.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 15:40

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW12B-D-041017 | Lab Sample ID: 240-77949-16

Matrix: Water | Lab File ID: UX963175.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:25

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 15:40

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.77	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-124
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	87		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW12C-S-041017 | Lab Sample ID: 240-77949-17

Matrix: Water | Lab File ID: UX963176.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:04

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW12C-S-041017 | Lab Sample ID: 240-77949-17

Matrix: Water | Lab File ID: UX963176.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:30

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:04

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.36	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-124
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
460-00-4	4-Bromofluorobenzene (Surr)	87		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW12C-D-041017 | Lab Sample ID: 240-77949-18

Matrix: Water | Lab File ID: UX963177.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:33

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:28

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW12C-D-041017 | Lab Sample ID: 240-77949-18

Matrix: Water | Lab File ID: UX963177.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:33

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:28

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW13A-S-041017 | Lab Sample ID: 240-77949-19

Matrix: Water | Lab File ID: UX963178.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:08

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:52

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW13A-S-041017 | Lab Sample ID: 240-77949-19

Matrix: Water | Lab File ID: UX963178.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:08

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:52

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.36	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-124
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW13A-D-041017 | Lab Sample ID: 240-77949-20

Matrix: Water | Lab File ID: UX963179.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 17:16

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW13A-D-041017 | Lab Sample ID: 240-77949-20

Matrix: Water | Lab File ID: UX963179.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:10

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 17:16

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-124
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW13B-S-041017 | Lab Sample ID: 240-77949-21

Matrix: Water | Lab File ID: UX963180.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 17:38

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW13B-S-041017 | Lab Sample ID: 240-77949-21

Matrix: Water | Lab File ID: UX963180.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:15

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 17:38

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-124
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW13B-D-041017 | Lab Sample ID: 240-77949-22

Matrix: Water | Lab File ID: UX963181.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:17

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 18:01

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW13B-D-041017 | Lab Sample ID: 240-77949-22

Matrix: Water | Lab File ID: UX963181.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:17

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 18:01

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.69	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-124
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW14A-S-041017 | Lab Sample ID: 240-77949-23

Matrix: Water | Lab File ID: UXM1720.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:36

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 14:27

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.43	J	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	5.5	J B	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW14A-S-041017 | Lab Sample ID: 240-77949-23

Matrix: Water | Lab File ID: UXM1720.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:36

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 14:27

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.39	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-124
1868-53-7	Dibromofluoromethane (Surr)	90		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW14A-D-041017 | Lab Sample ID: 240-77949-24

Matrix: Water | Lab File ID: UXM1721.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:39

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 14:50

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	3.1	J B	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW14A-D-041017 | Lab Sample ID: 240-77949-24

Matrix: Water | Lab File ID: UXM1721.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:39

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 14:50

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.86	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-124
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW14B-S-041017 | Lab Sample ID: 240-77949-25

Matrix: Water | Lab File ID: UXM1722.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:42

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 15:13

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	3.9	J B	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW14B-S-041017 | Lab Sample ID: 240-77949-25

Matrix: Water | Lab File ID: UXM1722.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:42

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 15:13

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW14B-D-041017 | Lab Sample ID: 240-77949-26

Matrix: Water | Lab File ID: UXM1723.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 15:37

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.3	J B	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW14B-D-041017 | Lab Sample ID: 240-77949-26

Matrix: Water | Lab File ID: UXM1723.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 15:37

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-124
1868-53-7	Dibromofluoromethane (Surr)	90		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW15A-S-041017 | Lab Sample ID: 240-77949-27

Matrix: Water | Lab File ID: UXM1724.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:59

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:00

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.9	J B	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW15A-S-041017 | Lab Sample ID: 240-77949-27

Matrix: Water | Lab File ID: UXM1724.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:59

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:00

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	3.1		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-124
1868-53-7	Dibromofluoromethane (Surr)	90		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW15A-D-041017 | Lab Sample ID: 240-77949-28

Matrix: Water | Lab File ID: UXM1725.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:02

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:23

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW15A-D-041017 | Lab Sample ID: 240-77949-28

Matrix: Water | Lab File ID: UXM1725.D

Analysis Method: 8260C | Date Collected: 04/10/2017 14:02

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:23

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	1.2		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-124
1868-53-7	Dibromofluoromethane (Surr)	90		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW16A-S-041017 | Lab Sample ID: 240-77949-29

Matrix: Water | Lab File ID: UXM1726.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:52

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:46

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.3	J B	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW16A-S-041017 | Lab Sample ID: 240-77949-29

Matrix: Water | Lab File ID: UXM1726.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:52

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 16:46

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.82	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-124
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW16A-D-041017 | Lab Sample ID: 240-77949-30

Matrix: Water | Lab File ID: UXM1727.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 17:10

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW16A-D-041017 | Lab Sample ID: 240-77949-30

Matrix: Water | Lab File ID: UXM1727.D

Analysis Method: 8260C | Date Collected: 04/10/2017 13:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 17:10

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	2.4		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-124
1868-53-7	Dibromofluoromethane (Surr)	89		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: TB-041017 | Lab Sample ID: 240-77949-31

Matrix: Water | Lab File ID: UXM1728.D

Analysis Method: 8260C | Date Collected: 04/10/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 17:33

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.9	J B	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: TB-041017 | Lab Sample ID: 240-77949-31

Matrix: Water | Lab File ID: UXM1728.D

Analysis Method: 8260C | Date Collected: 04/10/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 17:33

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-124
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SWDUP2-041017 | Lab Sample ID: 240-77949-33

Matrix: Water | Lab File ID: UXM1729.D

Analysis Method: 8260C | Date Collected: 04/10/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 17:56

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SWDUP2-041017 | Lab Sample ID: 240-77949-33

Matrix: Water | Lab File ID: UXM1729.D

Analysis Method: 8260C | Date Collected: 04/10/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 17:56

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.47	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		73-124
1868-53-7	Dibromofluoromethane (Surr)	90		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: TB-041117 | Lab Sample ID: 240-77962-1

Matrix: Water | Lab File ID: UX963189.D

Analysis Method: 8260C | Date Collected: 04/11/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 12:36

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.9	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: TB-041117 | Lab Sample ID: 240-77962-1

Matrix: Water | Lab File ID: UX963189.D

Analysis Method: 8260C | Date Collected: 04/11/2017 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 12:36

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274915 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	100		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW8A1-041117 | Lab Sample ID: 240-77962-2

Matrix: Water | Lab File ID: UX963190.D

Analysis Method: 8260C | Date Collected: 04/11/2017 07:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 13:00

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274915 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW8A1-041117 | Lab Sample ID: 240-77962-2

Matrix: Water | Lab File ID: UX963190.D

Analysis Method: 8260C | Date Collected: 04/11/2017 07:45

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 13:00

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	3.2		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW8A2-041117 | Lab Sample ID: 240-77962-3

Matrix: Water | Lab File ID: UX963191.D

Analysis Method: 8260C | Date Collected: 04/11/2017 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 13:24

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274915 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW8A2-041117 | Lab Sample ID: 240-77962-3

Matrix: Water | Lab File ID: UX963191.D

Analysis Method: 8260C | Date Collected: 04/11/2017 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 13:24

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	3.8		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW1A-041017 | Lab Sample ID: 240-77949-1

Matrix: Water | Lab File ID: Z24828_60.D

Analysis Method: 522 | Date Collected: 04/10/2017 11:45

Extract. Method: 3535A | Date Extracted: 04/20/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/22/2017 06:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

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

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

Analysis Batch No.: 116016 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.096	J F1	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	59		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW2A-041017 | Lab Sample ID: 240-77949-2

Matrix: Water | Lab File ID: Z24828_64.D

Analysis Method: 522 | Date Collected: 04/10/2017 11:57

Extract. Method: 3535A | Date Extracted: 04/20/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/22/2017 07:57

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

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

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

Analysis Batch No.: 116016 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.097	J	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	57		46-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SWDUP1-041017 | Lab Sample ID: 240-77949-32

Matrix: Water | Lab File ID: Z24828_65.D

Analysis Method: 522 | Date Collected: 04/10/2017 00:00

Extract. Method: 3535A | Date Extracted: 04/20/2017 19:30

Sample wt/vol: 100(mL) | Date Analyzed: 04/22/2017 08:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

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

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

Analysis Batch No.: 116016 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.10	J	0.20	0.057

CAS NO.	SURROGATE	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8 (Surr)	52		46-130

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW5A1-041017 | Lab Sample ID: 240-77949-3

Matrix: Water | Lab File ID: xd1710.D

Analysis Method: 680 | Date Collected: 04/10/2017 12:09

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1031.3(mL) | Date Analyzed: 04/17/2017 19:37

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.015	U	0.19	0.015
53742-07-7	Nonachlorobiphenyl	0.048	U	0.48	0.048
55722-26-4	Octachlorobiphenyl	0.037	U	0.29	0.037
27323-18-8	Monochlorobiphenyl	0.0054	U	0.097	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.068	U	0.48	0.068
25512-42-9	Dichlorobiphenyl	0.0052	U	0.097	0.0052
25429-29-2	Pentachlorobiphenyl	0.014	U	0.19	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.19	0.013
25323-68-6	Trichlorobiphenyl	0.0063	U	0.097	0.0063

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	76		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW5A2-041017 | Lab Sample ID: 240-77949-4

Matrix: Water | Lab File ID: xd1711.D

Analysis Method: 680 | Date Collected: 04/10/2017 12:20

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1021(mL) | Date Analyzed: 04/17/2017 20:06

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.048	U	0.49	0.048
55722-26-4	Octachlorobiphenyl	0.037	U	0.29	0.037
27323-18-8	Monochlorobiphenyl	0.0055	U	0.098	0.0055
2051-24-3	DCB Decachlorobiphenyl	0.069	U	0.49	0.069
25512-42-9	Dichlorobiphenyl	0.0053	U	0.098	0.0053
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0064	U	0.098	0.0064

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	80		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW5B-041017 | Lab Sample ID: 240-77949-5

Matrix: Water | Lab File ID: xd1712.D

Analysis Method: 680 | Date Collected: 04/10/2017 12:27

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 973.8(mL) | Date Analyzed: 04/17/2017 20:35

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.031	U	0.31	0.031
26601-64-9	Hexachlorobiphenyl	0.015	U	0.21	0.015
53742-07-7	Nonachlorobiphenyl	0.050	U	0.51	0.050
55722-26-4	Octachlorobiphenyl	0.039	U	0.31	0.039
27323-18-8	Monochlorobiphenyl	0.0058	U	0.10	0.0058
2051-24-3	DCB Decachlorobiphenyl	0.072	U	0.51	0.072
25512-42-9	Dichlorobiphenyl	0.0055	U	0.10	0.0055
25429-29-2	Pentachlorobiphenyl	0.014	U	0.21	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.21	0.013
25323-68-6	Trichlorobiphenyl	0.0067	U	0.10	0.0067

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	72		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW6A-041017 | Lab Sample ID: 240-77949-6

Matrix: Water | Lab File ID: xd1713.D

Analysis Method: 680 | Date Collected: 04/10/2017 12:56

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1043.4(mL) | Date Analyzed: 04/17/2017 21:04

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.036	U	0.29	0.036
27323-18-8	Monochlorobiphenyl	0.0054	U	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.012	U	0.19	0.012
25323-68-6	Trichlorobiphenyl	0.0062	U	0.096	0.0062

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	77		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW6B-041017 | Lab Sample ID: 240-77949-7

Matrix: Water | Lab File ID: xd1714.D

Analysis Method: 680 | Date Collected: 04/10/2017 13:05

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1044.6(mL) | Date Analyzed: 04/17/2017 21:33

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.036	U	0.29	0.036
27323-18-8	Monochlorobiphenyl	0.0054	U	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.012	U	0.19	0.012
25323-68-6	Trichlorobiphenyl	0.0062	U	0.096	0.0062

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	79		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW7A-041017 | Lab Sample ID: 240-77949-8

Matrix: Water | Lab File ID: xd1715.D

Analysis Method: 680 | Date Collected: 04/10/2017 13:13

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1040.2(mL) | Date Analyzed: 04/17/2017 22:02

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.037	U	0.29	0.037
27323-18-8	Monochlorobiphenyl	0.0054	U	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.012	U	0.19	0.012
25323-68-6	Trichlorobiphenyl	0.0062	U	0.096	0.0062

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	84		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW7B-041017 | Lab Sample ID: 240-77949-9

Matrix: Water | Lab File ID: xd1716.D

Analysis Method: 680 | Date Collected: 04/10/2017 13:25

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1042.2(mL) | Date Analyzed: 04/17/2017 22:30

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.036	U	0.29	0.036
27323-18-8	Monochlorobiphenyl	0.0054	U	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.012	U	0.19	0.012
25323-68-6	Trichlorobiphenyl	0.0062	U	0.096	0.0062

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	79		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW8A-041017 | Lab Sample ID: 240-77949-10

Matrix: Water | Lab File ID: xd1717.D

Analysis Method: 680 | Date Collected: 04/10/2017 12:40

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1029(mL) | Date Analyzed: 04/17/2017 22:59

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.015	U	0.19	0.015
53742-07-7	Nonachlorobiphenyl	0.048	U	0.49	0.048
55722-26-4	Octachlorobiphenyl	0.037	U	0.29	0.037
27323-18-8	Monochlorobiphenyl	0.0054	U	0.097	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.068	U	0.49	0.068
25512-42-9	Dichlorobiphenyl	0.0052	U	0.097	0.0052
25429-29-2	Pentachlorobiphenyl	0.014	U	0.19	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.19	0.013
25323-68-6	Trichlorobiphenyl	0.0063	U	0.097	0.0063

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	78		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW8B-041017 | Lab Sample ID: 240-77949-12

Matrix: Water | Lab File ID: xd1718.D

Analysis Method: 680 | Date Collected: 04/10/2017 12:50

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1046(mL) | Date Analyzed: 04/17/2017 23:28

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.036	U	0.29	0.036
27323-18-8	Monochlorobiphenyl	0.0054	U	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.012	U	0.19	0.012
25323-68-6	Trichlorobiphenyl	0.0062	U	0.096	0.0062

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	78		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW9A-041017 | Lab Sample ID: 240-77949-13

Matrix: Water | Lab File ID: xd1719.D

Analysis Method: 680 | Date Collected: 04/10/2017 13:34

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1046.3(mL) | Date Analyzed: 04/17/2017 23:57

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.036	U	0.29	0.036
27323-18-8	Monochlorobiphenyl	0.0054	U	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.012	U	0.19	0.012
25323-68-6	Trichlorobiphenyl	0.0062	U	0.096	0.0062

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	77		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW9B-041017 | Lab Sample ID: 240-77949-14

Matrix: Water | Lab File ID: xd1720.D

Analysis Method: 680 | Date Collected: 04/10/2017 13:41

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1046.6(mL) | Date Analyzed: 04/18/2017 00:26

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.036	U	0.29	0.036
27323-18-8	Monochlorobiphenyl	0.0054	U	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.012	U	0.19	0.012
25323-68-6	Trichlorobiphenyl	0.0062	U	0.096	0.0062

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	77		25-113

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SWDUP2-041017 | Lab Sample ID: 240-77949-33

Matrix: Water | Lab File ID: xd1721.D

Analysis Method: 680 | Date Collected: 04/10/2017 00:00

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1039.1(mL) | Date Analyzed: 04/18/2017 00:55

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.014	U	0.19	0.014
53742-07-7	Nonachlorobiphenyl	0.047	U	0.48	0.047
55722-26-4	Octachlorobiphenyl	0.037	U	0.29	0.037
27323-18-8	Monochlorobiphenyl	0.0054	U	0.096	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.067	U	0.48	0.067
25512-42-9	Dichlorobiphenyl	0.0052	U	0.096	0.0052
25429-29-2	Pentachlorobiphenyl	0.013	U	0.19	0.013
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.19	0.013
25323-68-6	Trichlorobiphenyl	0.0063	U	0.096	0.0063

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	80		25-113

Appendix C

Support Documentation

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MRC 2017 SW April

Report Number: 240-77949-1

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

The 1,4-Dioxane by method 522 was performed at the Test America Burlington Laboratory. The PCBs by method 680 was performed at the Test America Savannah Laboratory.

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

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

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

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

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

RECEIPT

The samples were received on 4/11/2017 9:20 AM and 4/12/2017 12:14 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 0.9º C, 1.3º C, 1.5º C, 2.1º C and 3.5º C.

The client changed the sample ID on the Chain of Custody from MRC-SW8A-S-041017 to MRC-SW8A-041017. The client canceled sample MRC-SW8A-D-041017 and requested that it not be analyzed. These changes were requested on 4/10/17 by the client.

1,4-DIOXANE

Samples MRC-SW1A-041017 (240-77949-1), MRC-SW2A-041017 (240-77949-2) and MRC-SWDUP1-041017 (240-77949-32) were analyzed for 1,4-Dioxane in accordance with EPA Method 522. The samples were prepared on 04/20/2017 and analyzed on 04/22/2017.

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

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MRC-SW1A-041017 (240-77949-1), TB-041117 (240-77962-1), MRC-SW2A-041017 (240-77949-2), MRC-SW8A1-041117 (240-77962-2), MRC-SW5A1-041017 (240-77949-3), MRC-SW8A2-041117 (240-77962-3), MRC-SW5A2-041017 (240-77949-4), MRC-SW5B-041017 (240-77949-5), MRC-SW6A-041017 (240-77949-6), MRC-SW6B-041017 (240-77949-7), MRC-SW7A-041017 (240-77949-8), MRC-SW7B-041017 (240-77949-9), MRC-SW8A-041017 (240-77949-10), MRC-SW8B-041017 (240-77949-12), MRC-SW9A-041017 (240-77949-13), MRC-SW9B-041017 (240-77949-14), MRC-SW12B-S-041017 (240-77949-15), MRC-SW12B-D-041017 (240-77949-16), MRC-SW12C-S-041017 (240-77949-17), MRC-SW12C-D-041017 (240-77949-18), MRC-SW13A-S-041017 (240-77949-19), MRC-SW13A-D-041017 (240-77949-20), MRC-SW13B-S-041017 (240-77949-21), MRC-SW13B-D-041017 (240-77949-22), MRC-SW14A-S-041017 (240-77949-23), MRC-SW14A-D-041017 (240-77949-24), MRC-SW14B-S-041017 (240-77949-25), MRC-SW14B-D-041017 (240-77949-26), MRC-SW15A-S-041017 (240-77949-27), MRC-SW15A-D-041017 (240-77949-28), MRC-SW16A-S-041017 (240-77949-29), MRC-SW16A-D-041017 (240-77949-30), TB-041017 (240-77949-31) and MRC-SWDUP2-041017 (240-77949-33) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 04/13/2017, 04/14/2017 and 04/17/2017.

Methylene Chloride was detected in method blank MB 240-274539/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-274715/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

2-Butanone (MEK) and Acetone were detected in method blank MB 240-274738/7 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-274915/8 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The continuing calibration verification (CCV) analyzed in batch 240-274539 was outside the method criteria for the following analyte: Carbon disulfide. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 240-274738 was outside the method criteria for the following analytes: 4-Methyl-2-pentanone and 2-Butanone. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated. MRC-SW14A-S-041017 (240-77949-23), MRC-SW14A-D-041017 (240-77949-24), MRC-SW14B-S-041017 (240-77949-25), MRC-SW14B-D-041017 (240-77949-26), MRC-SW15A-S-041017 (240-77949-27), MRC-SW15A-D-041017 (240-77949-28), MRC-SW16A-S-041017 (240-77949-29), MRC-SW16A-D-041017 (240-77949-30), TB-041017 (240-77949-31), MRC-SWDUP2-041017 (240-77949-33) and (CCVIS 240-274738/3)

The continuing calibration verification (CCV) analyzed in batch 240-274715 was outside the method criteria for the following analyte: Carbon disulfide. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated. MRC-SW5B-041017 (240-77949-5), MRC-SW6A-041017 (240-77949-6), MRC-SW6B-041017 (240-77949-7), MRC-SW7A-041017 (240-77949-8), MRC-SW7B-041017 (240-77949-9), MRC-SW8A-041017 (240-77949-10), MRC-SW8B-041017 (240-77949-12), MRC-SW9A-041017 (240-77949-13), MRC-SW9B-041017 (240-77949-14), MRC-SW12B-S-041017 (240-77949-15), MRC-SW12B-D-041017 (240-77949-16), MRC-SW12C-S-041017 (240-77949-17), MRC-SW12C-D-041017 (240-77949-18), MRC-SW13A-S-041017 (240-77949-19), MRC-SW13A-D-041017 (240-77949-20), MRC-SW13B-S-041017 (240-77949-21), MRC-SW13B-D-041017 (240-77949-22) and (CCVIS 240-274715/3)

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 240-274715.

The continuing calibration verification (CCV) analyzed in batch 240-274915 was outside the method criteria for the following analytes: Carbon disulfide and 1,1,2-Trichloro-1,2,2-trifluoroethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated. TB-041117 (240-77962-1), MRC-SW8A1-041117 (240-77962-2), MRC-SW8A2-041117 (240-77962-3) and (CCVIS 240-274915/3)

There was an MS/MSD analyzed in batch 274915 but could not be reported because the associated sample needed reanalyzed in a different batch. Batch included: TB-041117 (240-77962-1), MRC-SW8A1-041117 (240-77962-2) and MRC-SW8A2-041117 (240-77962-3)

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

POLYCHLORINATED BIPHENYLS (PCBS)

Samples MRC-SW5A1-041017 (240-77949-3), MRC-SW5A2-041017 (240-77949-4), MRC-SW5B-041017 (240-77949-5), MRC-SW6A-041017 (240-77949-6), MRC-SW6B-041017 (240-77949-7), MRC-SW7A-041017 (240-77949-8), MRC-SW7B-041017 (240-77949-9), MRC-SW8A-041017 (240-77949-10), MRC-SW8B-041017 (240-77949-12), MRC-SW9A-041017 (240-77949-13), MRC-SW9B-041017 (240-77949-14) and MRC-SWDUP2-041017 (240-77949-33) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 04/14/2017 and analyzed on 04/17/2017 and 04/18/2017.

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

Method Summary

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

TestAmerica Job ID: 240-77949-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

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

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

Sample Summary

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

TestAmerica Job ID: 240-77949-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-77949-1	MRC-SW1A-041017	Water	04/10/17 11:45	04/11/17 09:20
240-77949-2	MRC-SW2A-041017	Water	04/10/17 11:57	04/11/17 09:20
240-77949-3	MRC-SW5A1-041017	Water	04/10/17 12:09	04/11/17 09:20
240-77949-4	MRC-SW5A2-041017	Water	04/10/17 12:20	04/11/17 09:20
240-77949-5	MRC-SW5B-041017	Water	04/10/17 12:27	04/11/17 09:20
240-77949-6	MRC-SW6A-041017	Water	04/10/17 12:56	04/11/17 09:20
240-77949-7	MRC-SW6B-041017	Water	04/10/17 13:05	04/11/17 09:20
240-77949-8	MRC-SW7A-041017	Water	04/10/17 13:13	04/11/17 09:20
240-77949-9	MRC-SW7B-041017	Water	04/10/17 13:25	04/11/17 09:20
240-77949-10	MRC-SW8A-041017	Water	04/10/17 12:40	04/11/17 09:20
240-77949-12	MRC-SW8B-041017	Water	04/10/17 12:50	04/11/17 09:20
240-77949-13	MRC-SW9A-041017	Water	04/10/17 13:34	04/11/17 09:20
240-77949-14	MRC-SW9B-041017	Water	04/10/17 13:41	04/11/17 09:20
240-77949-15	MRC-SW12B-S-041017	Water	04/10/17 14:23	04/11/17 09:20
240-77949-16	MRC-SW12B-D-041017	Water	04/10/17 14:25	04/11/17 09:20
240-77949-17	MRC-SW12C-S-041017	Water	04/10/17 14:30	04/11/17 09:20
240-77949-18	MRC-SW12C-D-041017	Water	04/10/17 14:33	04/11/17 09:20
240-77949-19	MRC-SW13A-S-041017	Water	04/10/17 14:08	04/11/17 09:20
240-77949-20	MRC-SW13A-D-041017	Water	04/10/17 14:10	04/11/17 09:20
240-77949-21	MRC-SW13B-S-041017	Water	04/10/17 14:15	04/11/17 09:20
240-77949-22	MRC-SW13B-D-041017	Water	04/10/17 14:17	04/11/17 09:20
240-77949-23	MRC-SW14A-S-041017	Water	04/10/17 14:36	04/11/17 09:20
240-77949-24	MRC-SW14A-D-041017	Water	04/10/17 14:39	04/11/17 09:20
240-77949-25	MRC-SW14B-S-041017	Water	04/10/17 14:42	04/11/17 09:20
240-77949-26	MRC-SW14B-D-041017	Water	04/10/17 14:45	04/11/17 09:20
240-77949-27	MRC-SW15A-S-041017	Water	04/10/17 13:59	04/11/17 09:20
240-77949-28	MRC-SW15A-D-041017	Water	04/10/17 14:02	04/11/17 09:20
240-77949-29	MRC-SW16A-S-041017	Water	04/10/17 13:52	04/11/17 09:20
240-77949-30	MRC-SW16A-D-041017	Water	04/10/17 13:55	04/11/17 09:20
240-77949-31	TB-041017	Water	04/10/17 00:00	04/11/17 09:20
240-77949-32	MRC-SWDUP1-041017	Water	04/10/17 00:00	04/11/17 09:20
240-77949-33	MRC-SWDUP2-041017	Water	04/10/17 00:00	04/11/17 09:20
240-77962-1	TB-041117	Water	04/11/17 00:00	04/12/17 12:14
240-77962-2	MRC-SW8A1-041117	Water	04/11/17 07:45	04/12/17 12:14
240-77962-3	MRC-SW8A2-041117	Water	04/11/17 08:00	04/12/17 12:14

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

1.2/0.9
1.6/1.3 2.4/2.1

Chain of Custody Record

180325

BALTIMORE

TestAmerica

Client Information	Sampler: Josh Mullis	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41891-18219.1
Client Contact: Mr. Stuart Cameron	Phone: 410-279-2700	E-Mail: john.mcfadden@testamericainc.com		Page: Page ~~1 of 1~~ 1 of 3
Company: Tetra Tech, Inc				Job #
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): STANDARD			
State, Zip: MD, 20874				
Phone: 301-528-3021	PO #: ~~1142070~~			
Email: Stuart.Cameron@TetraTech.com	WO #: ~~1121007776~~			
Project Name: MRC 2017 ~~[illegible]~~ Surface Water	Project #: ~~24015639~~			
Site: MRC Surface water APRIL	SSOW#:			

Analysis Requested

240-77949 Chain of Custody

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	PCBs (680)	1,4 dioxane (522)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A		
MRC-SW1A-041017	4/10/17	1145	G	Water			3		2		
MRC-SW2A-041017	↓	1157	↓	Water			3		2		
MRC-SW5A1-041017	↓	1209	↓	↓			3	2			
MRC-SW5A2-041017	↓	1220	↓	↓			3	2			
MRC-SW5B-041017	↓	1227	↓	↓			3	2			
MRC-~~SW6A~~ SW6A-041017	↓	1256	↓	↓			3	2			
MRC-SW6B-041017	↓	1305	↓	↓			3	2			
MRC-SW7A-041017	↓	1313	↓	↓			3	2			
MRC-SW7B-041017	↓	1325	↓	↓			3	2			
MRC-SW8A-S-041017	↓	1240	↓	↓			3	2			~~HOLD PCB until PM approval~~ JAM
MRC-SW8A-D-041017	↓	1243	↓	↓			3				

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

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

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

Special Instructions/QC Requirements: ~~[illegible] PCB until PM approval~~ JAM

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	4/10/17 1545	TT	[signature]	4-10-2017/1545	TestAmerica
[signature]	4-10-2017/1650		[signature]	04/11/17 920	TAC

Custody Seals Intact	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks
Δ Yes Δ No		

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Josh Mullis	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41891-18219.1
Client Contact: Mr. Stuart Cameron	Phone: 412-279-2700	E-Mail: john.mcfadden@testamericainc.com		Page: Page ~~1 of~~ 1 of 3
Company: Tetra Tech, Inc.				Job #:

Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Germantown	TAT Requested (days): STANDARD		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
State, Zip: MD, 20874			
Phone: 301-528-3021	PO #: ~~4118870~~		
Email: Stuart.Cameron@TetraTech.com	WO #: ~~412IC07770~~		
Project Name: MRC 2017 ~~SW~~ Surface Water	Project #: ~~24015639~~		
Site: MRC Surface water APRIL	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	PCBs (660)	1,4 dioxane (527)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A		
MRC-SW1A-041017	4/10/17	1145	G	Water			3		2		
MRC-SW2A-041017		1157		Water			3		2		
MRC-SW5A1-041017		1209					3	2			
MRC-SW5A2-041017		1220					3	2			
MRC-SW5B-041017		1227					3	2			
MRC-~~SW6A~~ SW6A-041017		1256					3	2			
MRC-SW6B-041017		1305					3	2			
MRC-SW7A-041017		1313					3	2			
MRC-SW7B-041017		1325					3	2			
★ MRC-SW8A-~~D~~-041017		1240					3	2			
★ ~~MRC-SW5A-D-041017~~ ★	↓	~~1243~~	↓	↓			~~3~~	★	DO NOT ANALYZE ★		★ DO NOT ANALYZE ★

★ REMOVE "5" FROM NOMENCLATURE ★

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For ~~1~~ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements: ~~SAS~~ ~~SAS hold PCBs until PM approval~~

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

Relinquished by:	Date/Time: 4/10/17 1545	Company	Received by:	Date/Time: 4-10-2017 1545	Company TestAmerica
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

180325

BALTIMORE

TestAmerica

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

Chain of Custody Record

Client Information	Sampler: Josh Mullis	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41891-18219.1
Client Contact: Mr. Stuart Cameron	Phone: 410-279-2700	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 3
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): STANDARD			
State, Zip: MD, 20874				
Phone: 301-528-3021	PO #: [redacted]			
Email: Stuart.Cameron@TetraTech.com	WO #: [redacted]			
Project Name: MRC 2017 Surface Water	Project #: [redacted]			
Site: MRC SW APRIL 2017	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
MRC-SW8B-041017	4/10/17	1250	G	Water			3 2		
MRC-SW9A-041017		1334		Water			3 2		
MRC-SW9B-041017		1341					3 2		
MRC-SW12B-S-041017		1423					3		
MRC-SW12B-D-041017		1425					3		
MRC-SW12C-S-041017		1430					3		
MRC-SW12C-D-041017		1433					3		
MRC-SW13A-S-041017		1408					3		
MRC-SW13A-D-041017		1410					3		
MRC-SW13B-S-041017		1415					3		
MRC-SW13B-D-041017	↓	1417	↓	↓			3		

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		4/10/17 1545	TT		4-10-2017 / 1545	TestAmerica
2		4-10-2017 / 1650	TestAmerica		04/11/17 920	TA
3						

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

180325

BALTIMORE

Chain of Custody Record

TestAmerica

Client Information	Sampler: Josh McNeil	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-41891-18219.1
Client Contact: Mr. Stuart Cameron	Phone: 410-279-2700	E-Mail: john.mcfadden@testamericainc.com		Page: Page 3 of 3
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): STANDARD			
State, Zip: MD, 20874				
Phone: 301-528-3021	PO #: [redacted]			
Email: Stuart.Cameron@TetraTech.com	WO #: [redacted]			
Project Name: MRC 2017 GW SW	Project #: [redacted]			
Site: MRC 2017 SW APRIL	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL, OLM03.1/4.2 Volatile Analyte List	PCBs (680)	14 Hexane (522)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A				
MRC-SW14A-S-041017	4/10/17	1436	G	Water			3				
MRC-SW14A-D-041017		1439		Water			3				
MRC-SW14B-S-041017		1442					3				
MRC-SW14B-D-041017		1445					3				
MRC-SW15A-S-041017		1359					3				
MRC-SW15A-D-041017		1402					3				
MRC-SW16A-S-041017		1352					3				
MRC-SW16A-D-041017		1355					3				
TB-041017		0000					2				
MRC-SWDUP1-041017		0000							2		
MRC-SWDUP2-041017	↓	0000	↓	↓			3	2			

Possible Hazard Identification: [x] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): [ ] Return To Client [x] Disposal By Lab [ ] Archive For ____ Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: Fed Ex

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		4/10/17 1540	TT		4/10/2017 1545	TestAmerica
2		4-10-2017/1650	TestAmerica		04/11/17 920	TAL
3		Date/Time	Company		Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-041117	240-77962-1	100	97	95	93
MRC-SW8A1-041117	240-77962-2	97	93	94	93
MRC-SW8A2-041117	240-77962-3	99	97	94	93
	MB 240-274915/8	99	96	94	91
	LCS 240-274915/4	97	94	98	102
	LCSD 240-274915/5	100	95	95	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MRC-SW1A-041017	240-77949-1	96	96	92	88
MRC-SW2A-041017	240-77949-2	95	94	91	88
MRC-SW5A1-041017	240-77949-3	96	97	94	93
MRC-SW5A2-041017	240-77949-4	97	98	93	90
MRC-SW5B-041017	240-77949-5	94	96	94	90
MRC-SW6A-041017	240-77949-6	97	97	95	90
MRC-SW6B-041017	240-77949-7	96	95	92	91
MRC-SW7A-041017	240-77949-8	98	97	95	90
MRC-SW7B-041017	240-77949-9	94	95	93	95
MRC-SW8A-041017	240-77949-10	95	92	92	88
MRC-SW8B-041017	240-77949-12	97	95	93	90
MRC-SW9A-041017	240-77949-13	99	96	93	92
MRC-SW9B-041017	240-77949-14	96	96	91	89
MRC-SW12B-S-041017	240-77949-15	96	97	94	89
MRC-SW12B-D-041017	240-77949-16	99	98	91	87
MRC-SW12C-S-041017	240-77949-17	94	93	92	87
MRC-SW12C-D-041017	240-77949-18	94	96	93	91
MRC-SW13A-S-041017	240-77949-19	99	101	92	90
MRC-SW13A-D-041017	240-77949-20	99	95	95	90
MRC-SW13B-S-041017	240-77949-21	97	98	90	88
MRC-SW13B-D-041017	240-77949-22	96	96	92	90
MRC-SW14A-S-041017	240-77949-23	90	90	104	96
MRC-SW14A-D-041017	240-77949-24	93	90	101	92
MRC-SW14B-S-041017	240-77949-25	91	89	99	94
MRC-SW14B-D-041017	240-77949-26	90	91	100	95
MRC-SW15A-S-041017	240-77949-27	90	90	103	98
MRC-SW15A-D-041017	240-77949-28	90	90	99	94
MRC-SW16A-S-041017	240-77949-29	91	91	101	96
MRC-SW16A-D-041017	240-77949-30	89	88	98	94
TB-041017	240-77949-31	93	91	101	95
MRC-SWDUP2-041017	240-77949-33	90	90	102	97
	MB 240-274539/7	99	97	93	91
	MB 240-274715/7	94	95	94	89
	MB 240-274738/7	87	88	100	93
	LCS 240-274539/4	100	93	100	101

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

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
	LCS 240-274715/4	97	91	98	100
	LCS 240-274738/4	90	93	104	95
	LCSD 240-274715/8	95	95	95	99
	240-77931-A-4 MS	97	93	98	100
	240-77978-B-4 MS	95	97	104	97
	240-77931-A-4 MSD	98	99	99	100
	240-77978-B-4 MSD	91	89	102	94

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

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963120.D

Lab ID: LCS 240-274539/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.5	93	79-133	
1,1,2,2-Tetrachloroethane	20.0	19.9	99	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.0	85	65-151	
1,1,2-Trichloroethane	20.0	21.0	105	80-120	
1,1-Dichloroethane	20.0	18.9	94	77-121	
1,1-Dichloroethene	20.0	19.2	96	70-141	
1,2,4-Trichlorobenzene	20.0	15.4	77	53-137	
1,2-Dibromo-3-Chloropropane	20.0	16.5	83	46-140	
Ethylene Dibromide	20.0	19.4	97	80-126	
1,2-Dichlorobenzene	20.0	18.6	93	80-120	
1,2-Dichloroethane	20.0	17.9	89	76-130	
1,2-Dichloropropane	20.0	19.8	99	79-121	
1,3-Dichlorobenzene	20.0	19.0	95	80-120	
1,4-Dichlorobenzene	20.0	19.4	97	80-120	
2-Butanone (MEK)	40.0	38.4	96	54-122	
2-Hexanone	40.0	40.9	102	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	37.6	94	60-131	
Acetone	40.0	22.1	55	46-120	
Benzene	20.0	20.3	102	80-120	
Dichlorobromomethane	20.0	18.8	94	76-125	
Bromoform	20.0	19.1	96	52-157	
Bromomethane	20.0	20.3	101	24-160	
Carbon disulfide	20.0	15.0	75	58-160	
Carbon tetrachloride	20.0	17.2	86	69-149	
Chlorobenzene	20.0	19.1	96	80-120	
Chloroethane	20.0	21.6	108	24-147	
Chloroform	20.0	19.8	99	80-120	
Chloromethane	20.0	20.2	101	50-135	
cis-1,2-Dichloroethene	20.0	18.9	94	80-120	
cis-1,3-Dichloropropene	20.0	20.0	100	75-120	
Cyclohexane	20.0	19.4	97	66-135	
Chlorodibromomethane	20.0	17.0	85	68-131	
Dichlorodifluoromethane	20.0	17.9	89	32-140	
Ethylbenzene	20.0	19.4	97	80-120	
Isopropylbenzene	20.0	19.4	97	80-120	
Methyl acetate	40.0	35.0	87	65-124	
Methyl tert-butyl ether	20.0	17.9	89	75-126	
Methylcyclohexane	20.0	17.2	86	71-122	
Methylene Chloride	20.0	20.4	102	68-136	
Styrene	20.0	20.0	100	80-120	
Tetrachloroethene	20.0	20.4	102	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963120.D

Lab ID: LCS 240-274539/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.1	100	80-121	
trans-1,2-Dichloroethene	20.0	20.3	101	80-123	
trans-1,3-Dichloropropene	20.0	16.9	85	65-120	
Trichloroethene	20.0	19.2	96	80-122	
Trichlorofluoromethane	20.0	16.5	83	56-161	
Vinyl chloride	20.0	20.7	104	60-129	
Xylenes, Total	40.0	38.7	97	80-120	
m-Xylene & p-Xylene	20.0	19.5	98	80-120	
o-Xylene	20.0	19.2	96	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963159.D

Lab ID: LCS 240-274715/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.2	91	79-133	
1,1,2,2-Tetrachloroethane	20.0	19.0	95	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	16.4	82	65-151	
1,1,2-Trichloroethane	20.0	19.9	99	80-120	
1,1-Dichloroethane	20.0	18.6	93	77-121	
1,1-Dichloroethene	20.0	19.0	95	70-141	
1,2,4-Trichlorobenzene	20.0	15.6	78	53-137	
1,2-Dibromo-3-Chloropropane	20.0	17.1	85	46-140	
Ethylene Dibromide	20.0	19.1	95	80-126	
1,2-Dichlorobenzene	20.0	18.4	92	80-120	
1,2-Dichloroethane	20.0	17.0	85	76-130	
1,2-Dichloropropane	20.0	19.9	100	79-121	
1,3-Dichlorobenzene	20.0	18.7	94	80-120	
1,4-Dichlorobenzene	20.0	18.6	93	80-120	
2-Butanone (MEK)	40.0	38.2	95	54-122	
2-Hexanone	40.0	40.5	101	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	38.0	95	60-131	
Acetone	40.0	25.9	65	46-120	
Benzene	20.0	19.9	100	80-120	
Dichlorobromomethane	20.0	18.3	91	76-125	
Bromoform	20.0	18.9	95	52-157	
Bromomethane	20.0	19.2	96	24-160	
Carbon disulfide	20.0	15.4	77	58-160	
Carbon tetrachloride	20.0	17.6	88	69-149	
Chlorobenzene	20.0	18.7	93	80-120	
Chloroethane	20.0	21.0	105	24-147	
Chloroform	20.0	20.1	100	80-120	
Chloromethane	20.0	19.7	98	50-135	
cis-1,2-Dichloroethene	20.0	18.9	95	80-120	
cis-1,3-Dichloropropene	20.0	20.5	102	75-120	
Cyclohexane	20.0	19.2	96	66-135	
Chlorodibromomethane	20.0	17.1	85	68-131	
Dichlorodifluoromethane	20.0	19.6	98	32-140	
Ethylbenzene	20.0	18.9	95	80-120	
Isopropylbenzene	20.0	19.4	97	80-120	
Methyl acetate	40.0	36.6	92	65-124	
Methyl tert-butyl ether	20.0	17.8	89	75-126	
Methylcyclohexane	20.0	17.9	89	71-122	
Methylene Chloride	20.0	19.0	95	68-136	
Styrene	20.0	19.6	98	80-120	
Tetrachloroethene	20.0	19.4	97	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963159.D

Lab ID: LCS 240-274715/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	19.1	96	80-121	
trans-1,2-Dichloroethene	20.0	21.2	106	80-123	
trans-1,3-Dichloropropene	20.0	16.4	82	65-120	
Trichloroethene	20.0	18.6	93	80-122	
Trichlorofluoromethane	20.0	17.9	90	56-161	
Vinyl chloride	20.0	19.5	98	60-129	
Xylenes, Total	40.0	38.2	96	80-120	
m-Xylene & p-Xylene	20.0	18.9	94	80-120	
o-Xylene	20.0	19.3	97	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1715.D

Lab ID: LCS 240-274738/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	17.9	89	79-133	
1,1,2,2-Tetrachloroethane	20.0	18.6	93	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.6	113	65-151	
1,1,2-Trichloroethane	20.0	18.9	94	80-120	
1,1-Dichloroethane	20.0	17.3	87	77-121	
1,1-Dichloroethene	20.0	18.6	93	70-141	
1,2,4-Trichlorobenzene	20.0	19.3	96	53-137	
1,2-Dibromo-3-Chloropropane	20.0	17.9	89	46-140	
Ethylene Dibromide	20.0	18.1	90	80-126	
1,2-Dichlorobenzene	20.0	19.6	98	80-120	
1,2-Dichloroethane	20.0	16.5	83	76-130	
1,2-Dichloropropane	20.0	17.2	86	79-121	
1,3-Dichlorobenzene	20.0	18.6	93	80-120	
1,4-Dichlorobenzene	20.0	19.1	95	80-120	
2-Butanone (MEK)	40.0	29.2	73	54-122	
2-Hexanone	40.0	30.4	76	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	29.3	73	60-131	
Acetone	40.0	33.5	84	46-120	
Benzene	20.0	17.3	86	80-120	
Dichlorobromomethane	20.0	16.7	84	76-125	
Bromoform	20.0	16.7	84	52-157	
Bromomethane	20.0	17.0	85	24-160	
Carbon disulfide	20.0	18.4	92	58-160	
Carbon tetrachloride	20.0	16.6	83	69-149	
Chlorobenzene	20.0	18.5	93	80-120	
Chloroethane	20.0	19.7	98	24-147	
Chloroform	20.0	16.9	85	80-120	
Chloromethane	20.0	15.3	77	50-135	
cis-1,2-Dichloroethene	20.0	16.7	83	80-120	
cis-1,3-Dichloropropene	20.0	16.2	81	75-120	
Cyclohexane	20.0	20.8	104	66-135	
Chlorodibromomethane	20.0	17.7	88	68-131	
Dichlorodifluoromethane	20.0	17.9	90	32-140	
Ethylbenzene	20.0	19.3	97	80-120	
Isopropylbenzene	20.0	19.2	96	80-120	
Methyl acetate	40.0	33.2	83	65-124	
Methyl tert-butyl ether	20.0	15.8	79	75-126	
Methylcyclohexane	20.0	20.4	102	71-122	
Methylene Chloride	20.0	16.6	83	68-136	
Styrene	20.0	18.2	91	80-120	
Tetrachloroethene	20.0	19.7	98	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1715.D

Lab ID: LCS 240-274738/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	19.5	98	80-121	
trans-1,2-Dichloroethene	20.0	17.7	88	80-123	
trans-1,3-Dichloropropene	20.0	17.8	89	65-120	
Trichloroethene	20.0	16.9	84	80-122	
Trichlorofluoromethane	20.0	17.6	88	56-161	
Vinyl chloride	20.0	18.3	91	60-129	
Xylenes, Total	40.0	38.1	95	80-120	
m-Xylene & p-Xylene	20.0	18.8	94	80-120	
o-Xylene	20.0	19.3	97	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963184.D

Lab ID: LCS 240-274915/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.5	93	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.9	105	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.6	88	65-144	
1,1,2-Trichloroethane	20.0	20.7	104	76-121	
1,1-Dichloroethane	20.0	19.4	97	74-120	
1,1-Dichloroethene	20.0	20.1	100	65-127	
1,2,4-Trichlorobenzene	20.0	15.7	79	34-141	
1,2-Dibromo-3-Chloropropane	20.0	17.2	86	50-130	
Ethylene Dibromide	20.0	19.8	99	80-120	
1,2-Dichlorobenzene	20.0	19.4	97	80-120	
1,2-Dichloroethane	20.0	18.2	91	68-133	
1,2-Dichloropropane	20.0	20.8	104	78-127	
1,3-Dichlorobenzene	20.0	20.0	100	80-120	
1,4-Dichlorobenzene	20.0	19.7	99	80-120	
2-Butanone (MEK)	40.0	41.9	105	43-149	
2-Hexanone	40.0	44.9	112	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	41.3	103	53-144	
Acetone	40.0	30.0	75	35-131	
Benzene	20.0	20.8	104	79-120	
Dichlorobromomethane	20.0	19.4	97	79-125	
Bromoform	20.0	20.4	102	55-145	
Bromomethane	20.0	19.8	99	17-158	
Carbon disulfide	20.0	15.8	79	49-141	
Carbon tetrachloride	20.0	17.1	85	55-171	
Chlorobenzene	20.0	19.8	99	80-120	
Chloroethane	20.0	21.2	106	10-149	
Chloroform	20.0	20.4	102	80-120	
Chloromethane	20.0	19.1	96	59-124	
cis-1,2-Dichloroethene	20.0	19.6	98	77-120	
cis-1,3-Dichloropropene	20.0	21.2	106	75-120	
Cyclohexane	20.0	19.6	98	66-135	
Chlorodibromomethane	20.0	17.8	89	64-129	
Dichlorodifluoromethane	20.0	18.8	94	42-141	
Ethylbenzene	20.0	19.8	99	80-120	
Isopropylbenzene	20.0	19.8	99	80-128	
Methyl acetate	40.0	38.9	97	63-137	
Methyl tert-butyl ether	20.0	19.2	96	73-120	
Methylcyclohexane	20.0	18.0	90	63-141	
Methylene Chloride	20.0	20.2	101	64-140	
Styrene	20.0	20.9	104	80-121	
Tetrachloroethene	20.0	20.0	100	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963184.D

Lab ID: LCS 240-274915/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	20.0	20.0	100	78-120	
trans-1,2-Dichloroethene	20.0	22.3	112	74-124	
trans-1,3-Dichloropropene	20.0	17.4	87	67-120	
Trichloroethene	20.0	19.3	97	76-124	
Trichlorofluoromethane	20.0	17.4	87	27-176	
Vinyl chloride	20.0	19.0	95	65-124	
Xylenes, Total	40.0	39.6	99	80-120	
m-Xylene & p-Xylene	20.0	19.7	98	80-120	
o-Xylene	20.0	19.9	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963163.D

Lab ID: LCSD 240-274715/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	17.3	87	5	35	79-133	
1,1,2,2-Tetrachloroethane	20.0	19.2	96	1	35	61-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	16.0	80	3	35	65-151	
1,1,2-Trichloroethane	20.0	19.3	96	3	35	80-120	
1,1-Dichloroethane	20.0	17.7	88	5	35	77-121	
1,1-Dichloroethene	20.0	18.9	94	1	35	70-141	
1,2,4-Trichlorobenzene	20.0	16.1	80	3	35	53-137	
1,2-Dibromo-3-Chloropropane	20.0	16.8	84	1	35	46-140	
Ethylene Dibromide	20.0	18.2	91	4	35	80-126	
1,2-Dichlorobenzene	20.0	18.3	91	1	35	80-120	
1,2-Dichloroethane	20.0	17.1	86	1	35	76-130	
1,2-Dichloropropane	20.0	19.5	97	2	35	79-121	
1,3-Dichlorobenzene	20.0	18.8	94	0	35	80-120	
1,4-Dichlorobenzene	20.0	18.7	94	0	35	80-120	
2-Butanone (MEK)	40.0	40.8	102	7	35	54-122	
2-Hexanone	40.0	39.9	100	1	35	56-124	
4-Methyl-2-pentanone (MIBK)	40.0	37.8	94	1	35	60-131	
Acetone	40.0	28.2	71	8	35	46-120	
Benzene	20.0	19.6	98	2	35	80-120	
Dichlorobromomethane	20.0	18.2	91	1	35	76-125	
Bromoform	20.0	17.4	87	9	35	52-157	
Bromomethane	20.0	21.0	105	9	35	24-160	
Carbon disulfide	20.0	14.1	71	8	35	58-160	
Carbon tetrachloride	20.0	16.9	84	5	35	69-149	
Chlorobenzene	20.0	17.8	89	5	35	80-120	
Chloroethane	20.0	21.2	106	1	35	24-147	
Chloroform	20.0	19.2	96	4	35	80-120	
Chloromethane	20.0	19.5	97	1	35	50-135	
cis-1,2-Dichloroethene	20.0	18.3	91	4	35	80-120	
cis-1,3-Dichloropropene	20.0	19.4	97	5	35	75-120	
Cyclohexane	20.0	18.8	94	2	35	66-135	
Chlorodibromomethane	20.0	15.9	80	7	35	68-131	
Dichlorodifluoromethane	20.0	18.7	94	5	35	32-140	
Ethylbenzene	20.0	18.3	92	3	35	80-120	
Isopropylbenzene	20.0	19.0	95	2	35	80-120	
Methyl acetate	40.0	35.2	88	4	35	65-124	
Methyl tert-butyl ether	20.0	17.5	88	2	35	75-126	
Methylcyclohexane	20.0	15.3	77	15	35	71-122	
Methylene Chloride	20.0	18.9	95	0	35	68-136	
Styrene	20.0	19.2	96	2	35	80-120	
Tetrachloroethene	20.0	18.7	94	4	35	80-123	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963163.D

Lab ID: LCSD 240-274715/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	20.0	18.8	94	2	35	80-121	
trans-1,2-Dichloroethene	20.0	19.7	98	7	35	80-123	
trans-1,3-Dichloropropene	20.0	15.7	78	5	35	65-120	
Trichloroethene	20.0	18.6	93	0	35	80-122	
Trichlorofluoromethane	20.0	17.8	89	1	35	56-161	
Vinyl chloride	20.0	20.9	104	7	35	60-129	
Xylenes, Total	40.0	36.5	91	5	35	80-120	
m-Xylene & p-Xylene	20.0	18.6	93	2	35	80-120	
o-Xylene	20.0	17.9	89	8	35	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963185.D

Lab ID: LCSD 240-274915/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.7	94	1	35	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.7	103	1	35	58-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	17.8	89	1	35	65-144	
1,1,2-Trichloroethane	20.0	20.0	100	4	35	76-121	
1,1-Dichloroethane	20.0	19.1	95	2	35	74-120	
1,1-Dichloroethene	20.0	19.5	97	3	35	65-127	
1,2,4-Trichlorobenzene	20.0	16.6	83	6	35	34-141	
1,2-Dibromo-3-Chloropropane	20.0	16.7	84	2	35	50-130	
Ethylene Dibromide	20.0	19.0	95	4	35	80-120	
1,2-Dichlorobenzene	20.0	19.0	95	2	35	80-120	
1,2-Dichloroethane	20.0	18.3	92	1	35	68-133	
1,2-Dichloropropane	20.0	20.2	101	3	35	78-127	
1,3-Dichlorobenzene	20.0	19.2	96	4	35	80-120	
1,4-Dichlorobenzene	20.0	19.3	97	2	35	80-120	
2-Butanone (MEK)	40.0	41.1	103	2	35	43-149	
2-Hexanone	40.0	40.5	101	10	35	28-169	
4-Methyl-2-pentanone (MIBK)	40.0	40.1	100	3	35	53-144	
Acetone	40.0	29.6	74	1	35	35-131	
Benzene	20.0	20.7	103	0	35	79-120	
Dichlorobromomethane	20.0	19.1	96	1	35	79-125	
Bromoform	20.0	18.1	91	12	35	55-145	
Bromomethane	20.0	21.1	106	6	35	17-158	
Carbon disulfide	20.0	16.0	80	1	35	49-141	
Carbon tetrachloride	20.0	17.6	88	3	35	55-171	
Chlorobenzene	20.0	18.6	93	6	35	80-120	
Chloroethane	20.0	22.2	111	5	35	10-149	
Chloroform	20.0	20.8	104	2	35	80-120	
Chloromethane	20.0	20.7	104	8	35	59-124	
cis-1,2-Dichloroethene	20.0	19.5	98	0	35	77-120	
cis-1,3-Dichloropropene	20.0	20.7	104	2	35	75-120	
Cyclohexane	20.0	19.2	96	2	35	66-135	
Chlorodibromomethane	20.0	17.4	87	3	35	64-129	
Dichlorodifluoromethane	20.0	19.6	98	4	35	42-141	
Ethylbenzene	20.0	18.8	94	5	35	80-120	
Isopropylbenzene	20.0	19.2	96	3	35	80-128	
Methyl acetate	40.0	36.9	92	5	35	63-137	
Methyl tert-butyl ether	20.0	18.5	92	4	35	73-120	
Methylcyclohexane	20.0	18.1	91	1	35	63-141	
Methylene Chloride	20.0	19.8	99	2	35	64-140	
Styrene	20.0	19.7	98	6	35	80-121	
Tetrachloroethene	20.0	19.3	96	4	35	80-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963185.D

Lab ID: LCSD 240-274915/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	20.0	19.1	95	5	35	78-120	
trans-1,2-Dichloroethene	20.0	21.8	109	2	35	74-124	
trans-1,3-Dichloropropene	20.0	16.6	83	5	35	67-120	
Trichloroethene	20.0	19.3	96	0	35	76-124	
Trichlorofluoromethane	20.0	17.7	89	2	35	27-176	
Vinyl chloride	20.0	20.5	103	8	35	65-124	
Xylenes, Total	40.0	37.6	94	5	35	80-120	
m-Xylene & p-Xylene	20.0	18.8	94	4	35	80-120	
o-Xylene	20.0	18.8	94	6	35	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963140.D

Lab ID: 240-77931-A-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	200	2.3 U	169	84	55-150	
1,1,2,2-Tetrachloroethane	200	3.2 U	188	94	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	200	4.1 U	162	81	41-149	
1,1,2-Trichloroethane	200	3.4 U	186	93	65-130	
1,1-Dichloroethane	200	6.4 J	182	88	57-135	
1,1-Dichloroethene	200	53	231	89	50-156	
1,2,4-Trichlorobenzene	200	2.7 U	146	73	35-140	
1,2-Dibromo-3-Chloropropane	200	4.7 U	137	68	37-139	
Ethylene Dibromide	200	2.3 U	173	87	64-137	
1,2-Dichlorobenzene	200	2.6 U	172	86	62-123	
1,2-Dichloroethane	200	3.0 U	168	84	62-137	
1,2-Dichloropropane	200	3.0 U	187	93	66-130	
1,3-Dichlorobenzene	200	3.2 U	174	87	59-122	
1,4-Dichlorobenzene	200	2.3 U	173	87	60-122	
2-Butanone (MEK)	400	10 U	374	94	38-123	
2-Hexanone	400	12 U	343	86	41-135	
4-Methyl-2-pentanone (MIBK)	400	7.1 U	342	86	43-143	
Acetone	400	18 U	269	67	28-120	
Benzene	200	7.0 J	196	94	67-126	
Dichlorobromomethane	200	3.0 U	167	83	64-127	
Bromoform	200	4.3 U	131	65	40-149	
Bromomethane	200	4.2 U	190	95	10-169	
Carbon disulfide	200	3.4 U	177	88	43-172	
Carbon tetrachloride	200	3.5 U	146	73	51-154	
Chlorobenzene	200	3.2 U	170	85	58-128	
Chloroethane	200	4.1 U	210	105	10-162	
Chloroform	200	3.1 U	191	95	67-133	
Chloromethane	200	4.3 U	193	97	30-143	
cis-1,2-Dichloroethene	200	260	437	86	64-134	
cis-1,3-Dichloropropene	200	2.6 U	164	82	58-120	
Cyclohexane	200	4.4 U	171	85	36-144	
Chlorodibromomethane	200	2.5 U	138	69	56-132	
Dichlorodifluoromethane	200	5.0 U	192	96	16-140	
Ethylbenzene	200	2.6 U	168	84	66-123	
Isopropylbenzene	200	2.1 U	168	84	57-132	
Methyl acetate	400	14 U	336	84	46-135	
Methyl tert-butyl ether	200	2.7 U	172	86	50-137	
Methylcyclohexane	200	4.5 U	156	78	31-139	
Methylene Chloride	200	17	190	86	48-138	
Styrene	200	2.3 U	175	88	62-131	
Tetrachloroethene	200	3.0 U	170	85	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963140.D

Lab ID: 240-77931-A-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	200	2.3 U	175	88	63-130	
trans-1,2-Dichloroethene	200	2.9 U	196	98	70-137	
trans-1,3-Dichloropropene	200	3.1 U	130	65	48-120	
Trichloroethene	200	5.1 J	177	86	58-139	
Trichlorofluoromethane	200	5.0 U	169	84	26-175	
Vinyl chloride	200	12	208	98	38-147	
Xylenes, Total	400	2.4 U	337	84	60-126	
m-Xylene & p-Xylene	200	2.4 U	166	83	58-127	
o-Xylene	200	2.8 U	171	86	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1736.D

Lab ID: 240-77978-B-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	200	260	423	81	55-150	
1,1-Dichloroethane	200	51	222	85	57-135	
1,1-Dichloroethene	200	5.3 J	194	94	50-156	
Benzene	200	2.8 U	175	87	67-126	
Chloroethane	200	4.1 U	201	101	10-162	
cis-1,2-Dichloroethene	200	410	538	64	64-134	
Ethylbenzene	200	2.6 U	190	95	66-123	
Tetrachloroethene	200	3.0 U	195	97	54-138	
Toluene	200	2.3 U	196	98	63-130	
trans-1,2-Dichloroethene	200	3.9 J	183	90	70-137	
Trichloroethene	200	5.8 J	174	84	58-139	
Vinyl chloride	200	520	649	65	38-147	E
Xylenes, Total	400	2.4 U	378	95	60-126	
m-Xylene & p-Xylene	200	2.4 U	186	93	58-127	
o-Xylene	200	2.8 U	192	96	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963141.D

Lab ID: 240-77931-A-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	200	165	83	2	35	55-150	
1,1,2,2-Tetrachloroethane	200	194	97	3	35	48-134	
1,1,2-Trichloro-1,2,2-trifluoroethane	200	136	68	18	35	41-149	
1,1,2-Trichloroethane	200	198	99	6	35	65-130	
1,1-Dichloroethane	200	184	89	1	35	57-135	
1,1-Dichloroethene	200	222	85	4	35	50-156	
1,2,4-Trichlorobenzene	200	141	71	3	35	35-140	
1,2-Dibromo-3-Chloropropane	200	149	74	8	35	37-139	
Ethylene Dibromide	200	182	91	5	35	64-137	
1,2-Dichlorobenzene	200	175	88	2	35	62-123	
1,2-Dichloroethane	200	172	86	2	35	62-137	
1,2-Dichloropropane	200	187	94	0	35	66-130	
1,3-Dichlorobenzene	200	177	88	2	35	59-122	
1,4-Dichlorobenzene	200	173	87	0	35	60-122	
2-Butanone (MEK)	400	383	96	2	35	38-123	
2-Hexanone	400	408	102	17	35	41-135	
4-Methyl-2-pentanone (MIBK)	400	375	94	9	35	43-143	
Acetone	400	237	59	12	35	28-120	
Benzene	200	196	94	0	31	67-126	
Dichlorobromomethane	200	167	83	0	35	64-127	
Bromoform	200	135	68	4	35	40-149	
Bromomethane	200	190	95	0	35	10-169	
Carbon disulfide	200	137	68	25	35	43-172	
Carbon tetrachloride	200	144	72	1	35	51-154	
Chlorobenzene	200	176	88	3	35	58-128	
Chloroethane	200	215	108	2	35	10-162	
Chloroform	200	187	94	2	35	67-133	
Chloromethane	200	191	96	1	35	30-143	
cis-1,2-Dichloroethene	200	429	82	2	35	64-134	
cis-1,3-Dichloropropene	200	171	85	4	35	58-120	
Cyclohexane	200	149	75	14	35	36-144	
Chlorodibromomethane	200	147	74	6	35	56-132	
Dichlorodifluoromethane	200	173	86	10	35	16-140	
Ethylbenzene	200	176	88	4	34	66-123	
Isopropylbenzene	200	175	87	4	35	57-132	
Methyl acetate	400	346	86	3	34	46-135	
Methyl tert-butyl ether	200	180	90	4	35	50-137	
Methylcyclohexane	200	135	67	14	35	31-139	
Methylene Chloride	200	200	91	5	35	48-138	
Styrene	200	185	92	5	35	62-131	
Tetrachloroethene	200	174	87	2	35	54-138	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX963141.D

Lab ID: 240-77931-A-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	200	179	89	2	33	63-130	
trans-1,2-Dichloroethene	200	195	97	1	25	70-137	
trans-1,3-Dichloropropene	200	138	69	6	35	48-120	
Trichloroethene	200	178	87	1	35	58-139	
Trichlorofluoromethane	200	167	84	1	35	26-175	
Vinyl chloride	200	199	93	4	35	38-147	
Xylenes, Total	400	353	88	5	35	60-126	
m-Xylene & p-Xylene	200	173	87	4	35	58-127	
o-Xylene	200	180	90	5	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM1737.D

Lab ID: 240-77978-B-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	200	417	78	2	35	55-150	
1,1-Dichloroethane	200	228	89	3	35	57-135	
1,1-Dichloroethene	200	192	93	1	35	50-156	
Benzene	200	179	90	2	31	67-126	
Chloroethane	200	204	102	1	35	10-162	
cis-1,2-Dichloroethene	200	557	73	3	35	64-134	
Ethylbenzene	200	188	94	1	34	66-123	
Tetrachloroethene	200	195	97	0	35	54-138	
Toluene	200	198	99	1	33	63-130	
trans-1,2-Dichloroethene	200	187	92	2	25	70-137	
Trichloroethene	200	175	85	1	35	58-139	
Vinyl chloride	200	629	55	3	35	38-147	E
Xylenes, Total	400	384	96	2	35	60-126	
m-Xylene & p-Xylene	200	188	94	1	35	58-127	
o-Xylene	200	196	98	2	35	61-126	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab File ID: UX963123.D Lab Sample ID: MB 240-274539/7

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

Instrument ID: A3UX9 Date Analyzed: 04/13/2017 11:18

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-274539/4	UX963120.D	04/13/2017 10:06
MRC-SW1A-041017	240-77949-1	UX963129.D	04/13/2017 13:54
MRC-SW2A-041017	240-77949-2	UX963130.D	04/13/2017 14:18
MRC-SW5A1-041017	240-77949-3	UX963131.D	04/13/2017 14:42
MRC-SW5A2-041017	240-77949-4	UX963132.D	04/13/2017 15:06
	240-77931-A-4 MS	UX963140.D	04/13/2017 18:17
	240-77931-A-4 MSD	UX963141.D	04/13/2017 18:41

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab File ID: UX963162.D Lab Sample ID: MB 240-274715/7

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

Instrument ID: A3UX9 Date Analyzed: 04/14/2017 10:11

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-274715/4	UX963159.D	04/14/2017 08:59
	LCSD 240-274715/8	UX963163.D	04/14/2017 10:52
MRC-SW5B-041017	240-77949-5	UX963164.D	04/14/2017 11:16
MRC-SW6A-041017	240-77949-6	UX963165.D	04/14/2017 11:40
MRC-SW6B-041017	240-77949-7	UX963166.D	04/14/2017 12:04
MRC-SW7A-041017	240-77949-8	UX963167.D	04/14/2017 12:27
MRC-SW7B-041017	240-77949-9	UX963168.D	04/14/2017 12:52
MRC-SW8A-041017	240-77949-10	UX963169.D	04/14/2017 13:16
MRC-SW8B-041017	240-77949-12	UX963171.D	04/14/2017 14:04
MRC-SW9A-041017	240-77949-13	UX963172.D	04/14/2017 14:28
MRC-SW9B-041017	240-77949-14	UX963173.D	04/14/2017 14:51
MRC-SW12B-S-041017	240-77949-15	UX963174.D	04/14/2017 15:16
MRC-SW12B-D-041017	240-77949-16	UX963175.D	04/14/2017 15:40
MRC-SW12C-S-041017	240-77949-17	UX963176.D	04/14/2017 16:04
MRC-SW12C-D-041017	240-77949-18	UX963177.D	04/14/2017 16:28
MRC-SW13A-S-041017	240-77949-19	UX963178.D	04/14/2017 16:52
MRC-SW13A-D-041017	240-77949-20	UX963179.D	04/14/2017 17:16
MRC-SW13B-S-041017	240-77949-21	UX963180.D	04/14/2017 17:38
MRC-SW13B-D-041017	240-77949-22	UX963181.D	04/14/2017 18:01

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab File ID: UXM1718.D Lab Sample ID: MB 240-274738/7

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

Instrument ID: A3UX16 Date Analyzed: 04/14/2017 13:36

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-274738/4	UXM1715.D	04/14/2017 12:27
MRC-SW14A-S-041017	240-77949-23	UXM1720.D	04/14/2017 14:27
MRC-SW14A-D-041017	240-77949-24	UXM1721.D	04/14/2017 14:50
MRC-SW14B-S-041017	240-77949-25	UXM1722.D	04/14/2017 15:13
MRC-SW14B-D-041017	240-77949-26	UXM1723.D	04/14/2017 15:37
MRC-SW15A-S-041017	240-77949-27	UXM1724.D	04/14/2017 16:00
MRC-SW15A-D-041017	240-77949-28	UXM1725.D	04/14/2017 16:23
MRC-SW16A-S-041017	240-77949-29	UXM1726.D	04/14/2017 16:46
MRC-SW16A-D-041017	240-77949-30	UXM1727.D	04/14/2017 17:10
TB-041017	240-77949-31	UXM1728.D	04/14/2017 17:33
MRC-SWDUP2-041017	240-77949-33	UXM1729.D	04/14/2017 17:56
	240-77978-B-4 MS	UXM1736.D	04/14/2017 20:39
	240-77978-B-4 MSD	UXM1737.D	04/14/2017 21:02

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab File ID: UX963188.D Lab Sample ID: MB 240-274915/8

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

Instrument ID: A3UX9 Date Analyzed: 04/17/2017 11:28

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-274915/4	UX963184.D	04/17/2017 09:50
	LCSD 240-274915/5	UX963185.D	04/17/2017 10:16
TB-041117	240-77962-1	UX963189.D	04/17/2017 12:36
MRC-SW8A1-041117	240-77962-2	UX963190.D	04/17/2017 13:00
MRC-SW8A2-041117	240-77962-3	UX963191.D	04/17/2017 13:24

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab File ID: BFB5200.D BFB Injection Date: 03/29/2017

Instrument ID: A3UX16 BFB Injection Time: 13:36

Analysis Batch No.: 272263

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.6	(0.7) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	76.3	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-272263/6	UXM1388.D	03/29/2017	14:02
	STD8260 240-272263/7	UXM1389.D	03/29/2017	14:25
	STD8260 240-272263/8	UXM1390.D	03/29/2017	14:48
	ICIS 240-272263/9	UXM1391.D	03/29/2017	15:11
	STD8260 240-272263/10	UXM1392.D	03/29/2017	15:34
	STD8260 240-272263/11	UXM1393.D	03/29/2017	15:56
	ICV 240-272263/20	UXM1402.D	03/29/2017	19:27

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab File ID: BFB5215.D BFB Injection Date: 04/14/2017

Instrument ID: A3UX16 BFB Injection Time: 11:39

Analysis Batch No.: 274738

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.4	
75	30.0 - 60.0 % of mass 95	51.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.8	(1.0) 1
174	50.0 - 120.00 % of mass 95	74.7	
175	5.0 - 9.0 % of mass 174	5.5	(7.4) 1
176	95.0 - 101.0 % of mass 174	71.4	(95.6) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-274738/3	UXM1714.D	04/14/2017	12:04
	LCS 240-274738/4	UXM1715.D	04/14/2017	12:27
	CCV 240-274738/5	UXM1716.D	04/14/2017	12:50
	MB 240-274738/7	UXM1718.D	04/14/2017	13:36
MRC-SW14A-S-041017	240-77949-23	UXM1720.D	04/14/2017	14:27
MRC-SW14A-D-041017	240-77949-24	UXM1721.D	04/14/2017	14:50
MRC-SW14B-S-041017	240-77949-25	UXM1722.D	04/14/2017	15:13
MRC-SW14B-D-041017	240-77949-26	UXM1723.D	04/14/2017	15:37
MRC-SW15A-S-041017	240-77949-27	UXM1724.D	04/14/2017	16:00
MRC-SW15A-D-041017	240-77949-28	UXM1725.D	04/14/2017	16:23
MRC-SW16A-S-041017	240-77949-29	UXM1726.D	04/14/2017	16:46
MRC-SW16A-D-041017	240-77949-30	UXM1727.D	04/14/2017	17:10
TB-041017	240-77949-31	UXM1728.D	04/14/2017	17:33
MRC-SWDUP2-041017	240-77949-33	UXM1729.D	04/14/2017	17:56
	240-77978-B-4 MS	UXM1736.D	04/14/2017	20:39
	240-77978-B-4 MSD	UXM1737.D	04/14/2017	21:02

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab File ID: BFB3479.D BFB Injection Date: 10/31/2016

Instrument ID: A3UX9 BFB Injection Time: 12:14

Analysis Batch No.: 253710

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	49.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	81.8	
175	5.0 - 9.0 % of mass 174	5.9	(7.2) 1
176	95.0 - 101.0 % of mass 174	80.9	(98.9) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-253710/8	UX959470.D	10/31/2016	13:31
	STD8260 240-253710/9	UX959471.D	10/31/2016	13:55
	STD8260 240-253710/10	UX959472.D	10/31/2016	14:20
	ICIS 240-253710/11	UX959473.D	10/31/2016	14:44
	STD8260 240-253710/12	UX959474.D	10/31/2016	15:08
	STD8260 240-253710/13	UX959475.D	10/31/2016	15:31
	ICV 240-253710/22	UX959484.D	10/31/2016	19:09

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab File ID: BFB3625.D BFB Injection Date: 04/13/2017

Instrument ID: A3UX9 BFB Injection Time: 08:30

Analysis Batch No.: 274539

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.6	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	90.9	
175	5.0 - 9.0 % of mass 174	6.5	(7.1) 1
176	95.0 - 101.0 % of mass 174	90.6	(99.7) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-274539/3	UX963119.D	04/13/2017	09:42
	LCS 240-274539/4	UX963120.D	04/13/2017	10:06
	CCV 240-274539/5	UX963121.D	04/13/2017	10:30
	MB 240-274539/7	UX963123.D	04/13/2017	11:18
MRC-SW1A-041017	240-77949-1	UX963129.D	04/13/2017	13:54
MRC-SW2A-041017	240-77949-2	UX963130.D	04/13/2017	14:18
MRC-SW5A1-041017	240-77949-3	UX963131.D	04/13/2017	14:42
MRC-SW5A2-041017	240-77949-4	UX963132.D	04/13/2017	15:06
	240-77931-A-4 MS	UX963140.D	04/13/2017	18:17
	240-77931-A-4 MSD	UX963141.D	04/13/2017	18:41

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab File ID: BFB3626.D BFB Injection Date: 04/14/2017

Instrument ID: A3UX9 BFB Injection Time: 08:05

Analysis Batch No.: 274715

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	18.1
75	30.0 - 60.0 % of mass 95	47.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.5
173	Less than 2.0 % of mass 174	0.6 (0.7) 1
174	50.0 - 120.00 % of mass 95	87.1
175	5.0 - 9.0 % of mass 174	7.4 (8.4) 1
176	95.0 - 101.0 % of mass 174	87.8 (100.8) 1
177	5.0 - 9.0 % of mass 176	6.7 (7.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-274715/3	UX963158.D	04/14/2017	08:35
	LCS 240-274715/4	UX963159.D	04/14/2017	08:59
	CCV 240-274715/5	UX963160.D	04/14/2017	09:23
	MB 240-274715/7	UX963162.D	04/14/2017	10:11
	LCSD 240-274715/8	UX963163.D	04/14/2017	10:52
MRC-SW5B-041017	240-77949-5	UX963164.D	04/14/2017	11:16
MRC-SW6A-041017	240-77949-6	UX963165.D	04/14/2017	11:40
MRC-SW6B-041017	240-77949-7	UX963166.D	04/14/2017	12:04
MRC-SW7A-041017	240-77949-8	UX963167.D	04/14/2017	12:27
MRC-SW7B-041017	240-77949-9	UX963168.D	04/14/2017	12:52
MRC-SW8A-041017	240-77949-10	UX963169.D	04/14/2017	13:16
MRC-SW8B-041017	240-77949-12	UX963171.D	04/14/2017	14:04
MRC-SW9A-041017	240-77949-13	UX963172.D	04/14/2017	14:28
MRC-SW9B-041017	240-77949-14	UX963173.D	04/14/2017	14:51
MRC-SW12B-S-041017	240-77949-15	UX963174.D	04/14/2017	15:16
MRC-SW12B-D-041017	240-77949-16	UX963175.D	04/14/2017	15:40
MRC-SW12C-S-041017	240-77949-17	UX963176.D	04/14/2017	16:04
MRC-SW12C-D-041017	240-77949-18	UX963177.D	04/14/2017	16:28
MRC-SW13A-S-041017	240-77949-19	UX963178.D	04/14/2017	16:52
MRC-SW13A-D-041017	240-77949-20	UX963179.D	04/14/2017	17:16
MRC-SW13B-S-041017	240-77949-21	UX963180.D	04/14/2017	17:38
MRC-SW13B-D-041017	240-77949-22	UX963181.D	04/14/2017	18:01

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab File ID: BFB3627.D BFB Injection Date: 04/17/2017

Instrument ID: A3UX9 BFB Injection Time: 08:39

Analysis Batch No.: 274915

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.7	
75	30.0 - 60.0 % of mass 95	49.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	89.5	
175	5.0 - 9.0 % of mass 174	7.5	(8.4) 1
176	95.0 - 101.0 % of mass 174	86.2	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-274915/3	UX963183.D	04/17/2017	09:26
	LCS 240-274915/4	UX963184.D	04/17/2017	09:50
	LCSD 240-274915/5	UX963185.D	04/17/2017	10:16
	CCV 240-274915/6	UX963186.D	04/17/2017	10:40
	MB 240-274915/8	UX963188.D	04/17/2017	11:28
TB-041117	240-77962-1	UX963189.D	04/17/2017	12:36
MRC-SW8A1-041117	240-77962-2	UX963190.D	04/17/2017	13:00
MRC-SW8A2-041117	240-77962-3	UX963191.D	04/17/2017	13:24

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Sample No.: ICIS 240-272263/9 Date Analyzed: 03/29/2017 15:11

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1391.D Heated Purge: (Y/N) N

Calibration ID: 39180

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		776481	5.24	664123	7.92	397614	10.16
UPPER LIMIT		1552962	5.74	1328246	8.42	795228	10.66
LOWER LIMIT		388241	4.74	332062	7.42	198807	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-272263/20		753863	5.24	641867	7.92	381510	10.16
CCVIS 240-274738/3		879092	5.25	642248	7.93	375015	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Sample No.: CCVIS 240-274738/3 Date Analyzed: 04/14/2017 12:04

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM1714.D Heated Purge: (Y/N) N

Calibration ID: 39171

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		879092	5.25	642248	7.93	375015	10.16
UPPER LIMIT		1758184	5.75	1284496	8.43	750030	10.66
LOWER LIMIT		439546	4.75	321124	7.43	187508	9.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-274738/4		902706	5.24	655062	7.92	371984	10.16
CCV 240-274738/5		879403	5.24	619005	7.92	354912	10.16
MB 240-274738/7		820847	5.24	603963	7.92	336850	10.16
240-77949-23	MRC-SW14A-S-041017	777183	5.24	554328	7.92	328378	10.16
240-77949-24	MRC-SW14A-D-041017	772103	5.25	569537	7.93	324889	10.16
240-77949-25	MRC-SW14B-S-041017	794183	5.24	595099	7.92	331155	10.16
240-77949-26	MRC-SW14B-D-041017	782465	5.24	578438	7.92	330712	10.16
240-77949-27	MRC-SW15A-S-041017	775509	5.24	573699	7.93	326109	10.16
240-77949-28	MRC-SW15A-D-041017	791167	5.25	578690	7.93	329590	10.16
240-77949-29	MRC-SW16A-S-041017	767723	5.24	570214	7.93	322639	10.16
240-77949-30	MRC-SW16A-D-041017	798667	5.24	577595	7.92	334779	10.16
240-77949-31	TB-041017	761785	5.24	554227	7.92	317425	10.16
240-77949-33	MRC-SWDUP2-041017	765097	5.24	559787	7.92	316984	10.16
240-77978-B-4 MS		827354	5.24	601494	7.92	354718	10.16
240-77978-B-4 MSD		858790	5.24	626769	7.92	363007	10.16

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Sample No.: ICIS 240-253710/11 Date Analyzed: 10/31/2016 14:44

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX959473.D Heated Purge: (Y/N) N

Calibration ID: 36877

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1089945	5.72	845544	8.42	470846	10.66
UPPER LIMIT		2179890	6.22	1691088	8.92	941692	11.16
LOWER LIMIT		544973	5.22	422772	7.92	235423	10.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-253710/22		1016048	5.72	819306	8.42	452555	10.66
CCVIS 240-274539/3		1221393	5.72	972582	8.41	532760	10.65
CCVIS 240-274715/3		1260900	5.73	991247	8.41	572173	10.65
CCVIS 240-274915/3		1265262	5.72	989904	8.41	559879	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Sample No.: CCVIS 240-274539/3 Date Analyzed: 04/13/2017 09:42

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX963119.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1221393	5.72	972582	8.41	532760	10.65
UPPER LIMIT		2442786	6.22	1945164	8.91	1065520	11.15
LOWER LIMIT		610697	5.22	486291	7.91	266380	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-274539/4		1201367	5.73	925699	8.41	521582	10.65
CCV 240-274539/5		1183574	5.73	958321	8.41	473560	10.65
MB 240-274539/7		1137522	5.73	933163	8.41	484252	10.65
240-77949-1	MRC-SW1A-041017	1161289	5.73	931935	8.41	459711	10.65
240-77949-2	MRC-SW2A-041017	1170303	5.73	957318	8.41	492333	10.65
240-77949-3	MRC-SW5A1-041017	1144431	5.73	911948	8.41	466976	10.65
240-77949-4	MRC-SW5A2-041017	1137023	5.72	929730	8.41	465062	10.65
240-77931-A-4 MS		1207817	5.74	970116	8.41	538677	10.65
240-77931-A-4 MSD		1217925	5.73	942441	8.41	533629	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Sample No.: CCVIS 240-274715/3 Date Analyzed: 04/14/2017 08:35

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX963158.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1260900	5.73	991247	8.41	572173	10.65
UPPER LIMIT		2521800	6.23	1982494	8.91	1144346	11.15
LOWER LIMIT		630450	5.23	495624	7.91	286087	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-274715/4		1265203	5.72	996521	8.41	577276	10.65
CCV 240-274715/5		1268749	5.72	1024855	8.41	528234	10.65
MB 240-274715/7		1175948	5.73	940631	8.41	497493	10.65
LCSD 240-274715/8		1254552	5.72	1005272	8.41	572994	10.65
240-77949-5	MRC-SW5B-041017	1195398	5.73	959857	8.41	509096	10.65
240-77949-6	MRC-SW6A-041017	1181753	5.74	951384	8.41	487621	10.65
240-77949-7	MRC-SW6B-041017	1189961	5.73	965689	8.41	494135	10.65
240-77949-8	MRC-SW7A-041017	1184479	5.72	951458	8.41	501183	10.65
240-77949-9	MRC-SW7B-041017	1211592	5.72	953571	8.41	492156	10.65
240-77949-10	MRC-SW8A-041017	1192057	5.73	955021	8.41	494795	10.65
240-77949-12	MRC-SW8B-041017	1184961	5.72	961690	8.41	499185	10.65
240-77949-13	MRC-SW9A-041017	1172596	5.73	960974	8.41	491676	10.65
240-77949-14	MRC-SW9B-041017	1192529	5.74	975479	8.41	507455	10.65
240-77949-15	MRC-SW12B-S-041017	1185150	5.74	952275	8.41	488601	10.65
240-77949-16	MRC-SW12B-D-041017	1198119	5.73	979012	8.41	500831	10.65
240-77949-17	MRC-SW12C-S-041017	1194762	5.72	945082	8.41	487528	10.65
240-77949-18	MRC-SW12C-D-041017	1179878	5.72	952707	8.41	495985	10.65
240-77949-19	MRC-SW13A-S-041017	1159855	5.72	969168	8.41	496256	10.65
240-77949-20	MRC-SW13A-D-041017	1188457	5.72	938277	8.41	485555	10.65
240-77949-21	MRC-SW13B-S-041017	1173342	5.73	986791	8.41	492200	10.65
240-77949-22	MRC-SW13B-D-041017	1172909	5.73	948014	8.41	494759	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Sample No.: CCVIS 240-274915/3 Date Analyzed: 04/17/2017 09:26

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX963183.D Heated Purge: (Y/N) N

Calibration ID: 36915

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1265262	5.72	989904	8.41	559879	10.65
UPPER LIMIT		2530524	6.22	1979808	8.91	1119758	11.15
LOWER LIMIT		632631	5.22	494952	7.91	279940	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-274915/4		1268819	5.73	1000177	8.41	567565	10.65
LCSD 240-274915/5		1266948	5.72	1034720	8.41	580104	10.65
CCV 240-274915/6		1282672	5.72	1032236	8.41	528908	10.65
MB 240-274915/8		1189518	5.72	974204	8.41	523636	10.65
240-77962-1	TB-041117	1202274	5.72	976226	8.41	509248	10.65
240-77962-2	MRC-SW8A1-041117	1209262	5.73	958922	8.41	494017	10.65
240-77962-3	MRC-SW8A2-041117	1200088	5.72	998117	8.41	494624	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2774 0.3284	0.2911	0.3262	0.3261	0.3503	Ave		0.3166			0.1000	8.5		20.0			
Chloromethane	0.4243 0.3631	0.3916	0.3790	0.3773	0.3916	Ave		0.3878			0.1000	5.4		20.0			
Vinyl chloride	0.4087 0.3605	0.3465	0.3612	0.3711	0.3829	Ave		0.3718			0.1000	5.8		20.0			
Butadiene	0.2591 0.3141	0.2556	0.2954	0.3159	0.3217	Ave		0.2937				10.0		20.0			
Bromomethane	0.2462 0.2319	0.2336	0.2325	0.2219	0.2327	Ave		0.2332			0.0500	3.3		20.0			
Chloroethane	0.2194 0.2239	0.1843	0.2273	0.2249	0.2316	Ave		0.2186			0.0500	7.9		20.0			
Dichlorofluoromethane	0.6271 0.5827	0.5458	0.5988	0.5826	0.6147	Ave		0.5919				4.8		20.0			
Trichlorofluoromethane	0.3569 0.4333	0.3855	0.4259	0.4347	0.4592	Ave		0.4159			0.1000	9.0		20.0			
Ethyl ether	0.2759 0.2366	0.2379	0.2543	0.2398	0.2563	Ave		0.2501				6.1		20.0			
Acrolein	0.0384 0.0319	0.0312	0.0336	0.0327	0.0346	Ave		0.0337				7.6		20.0			
1,1-Dichloroethene	0.3099 0.2842	0.2647	0.2795	0.2888	0.2999	Ave		0.2878			0.1000	5.5		20.0			
Acetone	+++++ 0.0788	0.1310	0.0907	0.0866	0.0925	Lin1	0.1043	0.0835			0.0100				0.9940		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0921 0.1845	0.1404	0.1678	0.1754	0.1718	Lin1	-0.045	0.1793			0.0500				0.9990		0.9900
Iodomethane	0.4817 0.4537	0.4441	0.4516	0.4592	0.4825	Ave		0.4621				3.5		20.0			
Carbon disulfide	1.0384 0.9437	0.8950	0.9260	0.9397	0.9657	Ave		0.9514			0.1000	5.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2088 0.1945	0.1889	0.2169	0.1917	0.2068	Ave		0.2013				5.5		20.0			
Methyl acetate	0.1785 0.1542	0.1585	0.1607	0.1601	0.1623	Ave		0.1624			0.1000	5.1		20.0			
Methylene Chloride	+++++ 0.3133	0.8626	0.3413	0.3195	0.3388	Lin1	0.5333	0.3080			0.1000				0.9980		0.9900
2-Methyl-2-propanol	0.0315 0.0189	0.0213	0.0195	0.0198	0.0198	Lin1	0.0481	0.0192							0.9990		0.9900
Acrylonitrile	0.0953 0.0828	0.0857	0.0840	0.0837	0.0870	Ave		0.0864				5.4		20.0			
trans-1,2-Dichloroethene	0.3210 0.3162	0.2997	0.3159	0.3101	0.3333	Ave		0.3161			0.1000	3.5		20.0			
Methyl tert-butyl ether	0.8745 0.8162	0.7894	0.8187	0.8126	0.8733	Ave		0.8308			0.1000	4.2		20.0			
Hexane	0.2939 0.2948	0.2970	0.2722	0.2810	0.2994	Ave		0.2897				3.7		20.0			
1,1-Dichloroethane	0.5521 0.5175	0.4733	0.5210	0.5179	0.5529	Ave		0.5224			0.2000	5.6		20.0			
Vinyl acetate	0.4516 0.4009	0.3877	0.4037	0.3918	0.4198	Ave		0.4093				5.8		20.0			
2,2-Dichloropropane	0.3794 0.3532	0.3453	0.3576	0.3513	0.3722	Ave		0.3598				3.7		20.0			
2-Butanone (MEK)	0.1322 0.0875	0.0867	0.0946	0.0931	0.0992	Ave		0.0989			0.0100	17.1		20.0			
cis-1,2-Dichloroethene	0.3587 0.3537	0.3367	0.3467	0.3429	0.3721	Ave		0.3518			0.1000	3.6		20.0			
Chlorobromomethane	0.1291 0.1502	0.1431	0.1505	0.1467	0.1612	Ave		0.1468				7.2		20.0			
Tetrahydrofuran	+++++ 0.0556	0.0583	0.0569	0.0577	0.0598	Ave		0.0577				2.7		20.0			
Chloroform	0.5471 0.5284	0.5180	0.5158	0.5179	0.5629	Ave		0.5317			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.4142 0.4390	0.4248	0.4405	0.4404	0.4618	Ave		0.4368			0.1000	3.7		20.0			
Cyclohexane	0.4351 0.4326	0.4108	0.4111	0.4328	0.4318	Ave		0.4257			0.1000	2.7		20.0			
1,1-Dichloropropene	0.3936 0.4033	0.3495	0.3997	0.4002	0.4212	Ave		0.3946				6.1		20.0			
Carbon tetrachloride	0.3835 0.3598	0.3382	0.3513	0.3550	0.3753	Ave		0.3605			0.1000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0065 0.0062	0.0053	0.0067	0.0067	0.0067	Ave		0.0063				8.6		20.0			
Benzene	1.3724 1.2227	1.1219	1.2218	1.2050	1.2842	Ave		1.2380			0.5000	6.8		20.0			
1,2-Dichloroethane	0.3910 0.3932	0.3705	0.4014	0.3955	0.4214	Ave		0.3955			0.1000	4.2		20.0			
n-Heptane	+++++ 0.1323	0.7828	0.1743	0.1452	0.1373	Lin1	0.6515	0.1191							0.9980		0.9900
Trichloroethene	0.3404 0.3089	0.2946	0.3129	0.3013	0.3193	Ave		0.3129			0.1500	5.1		20.0			
Methylcyclohexane	0.3962 0.4020	0.4164	0.3842	0.3811	0.4140	Ave		0.3990			0.1000	3.7		20.0			
1,2-Dichloropropane	0.2659 0.2739	0.2677	0.2805	0.2770	0.2933	Ave		0.2764			0.1000	3.6		20.0			
Dibromomethane	0.1841 0.1580	0.1557	0.1636	0.1609	0.1664	Ave		0.1648				6.2		20.0			
1,4-Dioxane	0.0022 0.0024	0.0021	0.0025	0.0025	0.0025	Ave		0.0024				6.7		20.0			
Dichlorobromomethane	0.3832 0.3821	0.3551	0.3780	0.3743	0.4067	Ave		0.3799			0.1500	4.4		20.0			
2-Chloroethyl vinyl ether	0.1585 0.1357	0.1250	0.1429	0.1377	0.1476	Ave		0.1413				8.0		20.0			
cis-1,3-Dichloropropene	0.4496 0.4653	0.4268	0.4592	0.4537	0.4927	Ave		0.4579			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.2293 0.1854	0.2069	0.2005	0.2004	0.2030	Ave		0.2043			0.0500	7.0		20.0			
Toluene	1.5034 1.5997	1.3726	1.5269	1.5051	1.6319	Ave		1.5233			0.4000	6.0		20.0			
trans-1,3-Dichloropropene	0.4548 0.4818	0.4333	0.4674	0.4569	0.4997	Ave		0.4656			0.1000	5.0		20.0			
Ethyl methacrylate	0.3803 0.3740	0.3185	0.3922	0.3811	0.3898	Ave		0.3726				7.3		20.0			
1,1,2-Trichloroethane	0.2635 0.2687	0.2498	0.2723	0.2568	0.2811	Ave		0.2654			0.1000	4.2		20.0			
1,3-Dichloropropane	0.5065 0.4731	0.4472	0.4815	0.4621	0.4985	Ave		0.4781				4.6		20.0			
Tetrachloroethene	0.2542 0.2756	0.2173	0.2564	0.2573	0.2785	Ave		0.2566			0.1500	8.5		20.0			
2-Hexanone	0.2078 0.1535	0.1472	0.1718	0.1662	0.1729	Ave		0.1699			0.0500	12.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.2932 0.3159	0.2671	0.2991	0.3025	0.3261	Ave		0.3007				6.8		20.0			
Ethylene Dibromide	0.2219 0.2665	0.2582	0.2665	0.2598	0.2776	Ave		0.2584				7.4		20.0			
Chlorobenzene	1.0529 0.9678	0.8811	0.9699	0.9300	1.0081	Ave		0.9683			0.3000	6.2		20.0			
1,1,1,2-Tetrachloroethane	0.3063 0.3556	0.3094	0.3415	0.3391	0.3631	Ave		0.3358				7.0		20.0			
Ethylbenzene	0.4877 0.5488	0.4527	0.5317	0.5213	0.5696	Ave		0.5186				8.2		20.0			
m-Xylene & p-Xylene	0.6411 0.6835	0.5972	0.6660	0.6424	0.7068	Ave		0.6562				5.8		20.0			
o-Xylene	0.6365 0.7126	0.5894	0.6714	0.6629	0.7222	Ave		0.6658				7.4		20.0			
Styrene	1.1100 1.1992	0.9655	1.1476	1.1234	1.2429	Ave		1.1314			0.3000	8.4		20.0			
Bromoform	+++++ 0.1965	0.1499	0.1847	0.1835	0.2004	Ave		0.1830			0.1000	10.9		20.0			
Isopropylbenzene	1.5431 1.7556	1.4920	1.6914	1.6192	1.7882	Ave		1.6482			0.1000	7.1		20.0			
1,1,2,2-Tetrachloroethane	0.6083 0.5668	0.5706	0.5874	0.5668	0.5898	Ave		0.5816			0.3000	2.8		20.0			
Bromobenzene	0.7214 0.6938	0.6411	0.6888	0.6748	0.7324	Ave		0.6921				4.7		20.0			
1,2,3-Trichloropropane	0.1987 0.1777	0.1412	0.1899	0.1788	0.1886	Ave		0.1791				11.2		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1649	0.1477	0.1661	0.1620	0.1691	Ave		0.1620				5.2		20.0			
N-Propylbenzene	0.6918 0.7372	0.6194	0.7268	0.7170	0.7728	Ave		0.7108				7.3		20.0			
2-Chlorotoluene	0.5891 0.6524	0.6072	0.6547	0.6350	0.6848	Ave		0.6372				5.4		20.0			
1,3,5-Trimethylbenzene	2.0957 2.3598	2.0166	2.3008	2.2541	2.4702	Ave		2.2495				7.5		20.0			
4-Chlorotoluene	0.6633 0.6930	0.6450	0.6920	0.6739	0.7178	Ave		0.6808				3.8		20.0			
tert-Butylbenzene	1.7635 1.9140	1.6247	1.8363	1.8095	2.0418	Ave		1.8316				7.7		20.0			
1,2,4-Trimethylbenzene	2.3247 2.5091	2.1504	2.4221	2.3653	2.6095	Ave		2.3968				6.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.5150 2.6729	2.2201	2.4881	2.5159	2.6914	Ave		2.5172				6.7		20.0			
1,3-Dichlorobenzene	1.4670 1.3679	1.2338	1.3477	1.3117	1.4211	Ave		1.3582			0.6000	6.0		20.0			
4-Isopropyltoluene	2.1129 2.3459	1.8695	2.2357	2.2077	2.3896	Ave		2.1935				8.5		20.0			
1,4-Dichlorobenzene	1.4955 1.4123	1.3794	1.3886	1.3663	1.4845	Ave		1.4211			0.5000	3.9		20.0			
n-Butylbenzene	1.7339 1.9743	1.5905	1.8048	1.8379	1.9843	Ave		1.8210				8.2		20.0			
1,2-Dichlorobenzene	1.2562 1.3098	1.1778	1.2902	1.2925	1.3695	Ave		1.2827			0.4000	4.9		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1052	0.0364	0.0995	0.1035	0.1060	Lin1	-0.070	0.1069			0.0500				1.0000		0.9900
1,2,4-Trichlorobenzene	0.6877 0.6736	0.5503	0.6622	0.6682	0.6940	Ave		0.6560			0.2000	8.1		20.0			
Hexachlorobutadiene	0.2877 0.2599	0.2632	0.2675	0.2544	0.2579	Ave		0.2651				4.5		20.0			
Naphthalene	1.6027 1.5994	1.4701	1.5619	1.6108	1.6507	Ave		1.5826				3.9		20.0			
1,2,3-Trichlorobenzene	0.6150 0.5347	0.5152	0.5434	0.5219	0.5373	Ave		0.5446				6.6		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2685	0.2395	0.2729	0.2637	0.2857	Ave		0.2661				6.4		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3228	0.3015	0.3260	0.3254	0.3428	Ave		0.3237				4.5		20.0			
Toluene-d8 (Surr)	+++++ 1.3214	1.1456	1.2974	1.2474	1.3716	Ave		1.2767				6.7		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.5071	0.4952	0.5030	0.4775	0.5277	Ave		0.5021				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-272263/6	UXM1388.D
Level 2	STD8260 240-272263/7	UXM1389.D
Level 3	STD8260 240-272263/8	UXM1390.D
Level 4	ICIS 240-272263/9	UXM1391.D
Level 5	STD8260 240-272263/10	UXM1392.D
Level 6	STD8260 240-272263/11	UXM1393.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5179 847120	11017	128360	253224	550892	0.500 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	7922 936755	14820	149125	293002	615885	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7630 930046	13114	142124	288166	602218	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	4838 810331	9674	116239	245302	505876	0.500 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	4597 598347	8841	91460	172325	365990	0.500 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4096 577536	6974	89417	174639	364276	0.500 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11708 1503160	20654	235601	452370	966660	0.500 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	6664 1117927	14588	167580	337517	722089	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5151 610299	9003	100039	186234	403120	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	3583 411959	5902	66140	127012	271894	2.50 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	5786 733110	10015	109963	224216	471677	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 406505	9915	71393	134509	291061	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin1	1719 475836	5314	66002	136175	270113	0.500 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	8993 1170460	16807	177685	356561	758795	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19388 2434531	33870	364318	729668	1518632	0.500 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	3898 501808	7147	85345	148857	325226	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	16660 1988424	29982	316228	621600	1276312	2.50 300	5.00	50.0	100	200
Methylene Chloride	FB	Lin1	+++++ 808307	32644	134304	248096	532778	+++++ 60.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Lin1	5873 488818	8043	76560	153795	312048	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	17798 2135402	32438	330543	649564	1367386	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	5994 815699	11343	124281	240825	524179	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	16327 2105680	29872	322103	631005	1373337	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	5487 760574	11238	107113	218153	470888	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10307 1334943	17911	204999	402129	869459	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	8432 1034200	14672	158843	304201	660178	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	7083 911074	13066	140701	272751	585273	0.500 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	4935 451516	6565	74473	144524	312018	1.00 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	6697 912453	12740	136411	266288	585132	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	2410 387412	5415	59207	113893	253511	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 286982	4411	44754	89633	188065	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	10215 1363021	19603	202957	402177	885179	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	7733 1132620	16074	173321	341980	726229	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	8124 1115970	15546	161743	336024	679066	0.500 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7348 1040465	13224	157266	310724	662295	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	7160 928150	12799	138203	275660	590240	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	3024 400360	5010	65708	129156	263648	12.5 1500	25.0	250	500	1000
Benzene	FB	Ave	25623 3154247	42454	480702	935627	2019515	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	7301 1014431	14020	157922	307103	662756	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 341428	29623	68593	112761	215843	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6355 796803	11148	123108	233955	502151	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7397 1037120	15758	151173	295935	651030	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4964 706657	10130	110357	215114	461237	0.500 60.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	3437 407486	5893	64377	124908	261655	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	834 123335	1605	19655	38426	78547	10.0 1200	20.0	200	400	800
Dichlorobromomethane	FB	Ave	7155 985845	13436	148706	290638	639618	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	5918 700370	9463	112468	213909	464280	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8395 1200301	16151	180675	352263	774818	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	8562 956773	15661	157774	311153	638574	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	24459 3381801	43972	506034	999549	2175973	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7400 1018460	13881	154908	303427	666263	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6188 790543	10204	129971	253071	519797	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	4287 568086	8004	90248	170548	374844	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8240 1000041	14327	159567	306909	664700	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	4136 582643	6962	84984	170857	371340	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	6760 648844	9432	113881	220698	461028	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	4770 667908	8556	99130	200923	434766	0.500 60.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	3610 563465	8273	88330	172552	370102	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	17130 2045855	28228	321425	617603	1344142	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	4983 751801	9911	113169	225209	484147	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	7935 1160183	14503	176218	346211	759461	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	10431 1444911	19132	220713	426620	942436	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10356 1506460	18882	222497	440251	962956	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	18059 2535054	30930	380327	746075	1657306	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 415424	4801	61205	121879	267228	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25106 3711391	47797	560540	1075361	2384274	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	5713 737968	10448	115737	225373	475002	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	6775 903324	11739	135717	268325	589896	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	1866 231422	2585	37411	71109	151875	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 214760	2705	32721	64414	136212	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6497 959812	11342	143202	285089	622432	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	5533 849427	11118	129000	252467	551504	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	19682 3072471	36925	453357	896247	1989434	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	6229 902216	11811	136344	267964	578143	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	16562 2492024	29749	361820	719500	1644461	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	21832 3266809	39375	477256	940469	2101646	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	23620 3480080	40652	490263	1000351	2167632	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13777 1780923	22592	265561	521548	1144570	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	19843 3054252	34232	440532	877803	1924581	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	14045 1838844	25258	273613	543264	1195580	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 272263

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/29/2017 14:02 Calibration End Date: 03/29/2017 15:56 Calibration ID: 39180

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	16284 2570482	29124	355628	730792	1598143	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	11798 1705302	21566	254218	513920	1102993	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 136942	667	19605	41171	85385	+++++ 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	6459 876963	10076	130479	265671	558939	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	2702 338447	4820	52710	101162	207737	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	15052 2082436	26918	307761	640457	1329426	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	5776 696197	9433	107067	207510	432770	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 692751	9065	107373	204745	449310	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 832640	11411	128256	252642	539067	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2793316	36701	429977	828458	1828800	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1072081	15864	166696	317105	703668	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-253710/8	UX959470.D
Level 2	STD8260 240-253710/9	UX959471.D
Level 3	STD8260 240-253710/10	UX959472.D
Level 4	ICIS 240-253710/11	UX959473.D
Level 5	STD8260 240-253710/12	UX959474.D
Level 6	STD8260 240-253710/13	UX959475.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2740 0.3110	0.2716	0.2989	0.2939	0.3264	Ave		0.2960			0.1000	7.2		20.0			
Chloromethane	0.3760 0.3337	0.3407	0.3694	0.3368	0.3588	Ave		0.3526			0.1000	5.1		20.0			
Vinyl chloride	0.3009 0.3414	0.3318	0.3722	0.3407	0.3619	Ave		0.3415			0.1000	7.3		20.0			
Butadiene	+++++ 0.3268	0.2168	0.2797	0.3026	0.3283	Ave		0.2909				15.8		20.0			
Bromomethane	0.1937 0.2501	0.1952	0.2199	0.2077	0.2234	Ave		0.2150			0.0500	9.8		20.0			
Chloroethane	0.1543 0.2476	0.1912	0.2494	0.2301	0.2469	Ave		0.2199			0.0500	17.7		20.0			
Dichlorofluoromethane	0.3725 0.5509	0.4178	0.5768	0.5402	0.5830	Ave		0.5069				17.6		20.0			
Trichlorofluoromethane	0.3107 0.4549	0.3855	0.4467	0.4326	0.4727	Ave		0.4172			0.1000	14.4		20.0			
Ethyl ether	0.1906 0.2453	0.2082	0.2425	0.2372	0.2480	Ave		0.2286				10.3		20.0			
Acrolein	0.0379 0.0356	0.0299	0.0323	0.0329	0.0360	Ave		0.0341				8.6		20.0			
1,1-Dichloroethene	0.3555 0.5265	0.4280	0.5369	0.4991	0.5281	Ave		0.4790			0.1000	15.1		20.0			
Acetone	+++++ 0.1056	0.1566	0.1192	0.1039	0.0988	Lin1	0.1173	0.1029			0.0100				0.9980		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.2848	0.1673	0.2782	0.2606	0.2864	Ave		0.2555			0.0500	19.7		20.0			
Iodomethane	0.3928 0.4627	0.4110	0.4526	0.4319	0.4610	Ave		0.4353				6.6		20.0			
Carbon disulfide	0.7849 0.8581	1.0236	0.8141	0.7260	0.8171	Ave		0.8373			0.1000	12.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.3504 0.3857	0.3632	0.3389	0.3492	0.3769	Ave		0.3607				5.0		20.0			
Methyl acetate	0.2313 0.2140	0.2276	0.2155	0.2066	0.2192	Ave		0.2190			0.1000	4.2		20.0			
Methylene Chloride	+++++ 0.3576	0.4410	0.3959	0.3491	0.3706	Ave		0.3828			0.1000	9.7		20.0			
2-Methyl-2-propanol	0.0247 0.0298	0.0214	0.0271	0.0260	0.0285	Ave		0.0262				11.3		20.0			
Acrylonitrile	0.0917 0.1045	0.0887	0.1017	0.1002	0.1038	Ave		0.0984				6.7		20.0			
trans-1,2-Dichloroethene	0.3245 0.3491	0.3572	0.3524	0.3424	0.3605	Ave		0.3477			0.1000	3.7		20.0			
Methyl tert-butyl ether	0.7869 0.8678	0.7533	0.8472	0.8294	0.8677	Ave		0.8254			0.1000	5.6		20.0			
Hexane	0.2438 0.2902	0.2349	0.2662	0.2595	0.2778	Ave		0.2621				7.9		20.0			
1,1-Dichloroethane	0.4042 0.4522	0.4181	0.4501	0.4390	0.4558	Ave		0.4365			0.2000	4.8		20.0			
Vinyl acetate	0.4045 0.4353	0.4208	0.3889	0.3960	0.4425	Ave		0.4147				5.2		20.0			
cis-1,2-Dichloroethene	0.3148 0.3690	0.4060	0.3712	0.3562	0.3704	Ave		0.3646			0.1000	8.1		20.0			
2-Butanone (MEK)	0.1329 0.1042	0.1093	0.1263	0.1044	0.1134	Ave		0.1151			0.0100	10.4		20.0			
2,2-Dichloropropane	0.1901 0.2047	0.1713	0.2006	0.1957	0.2025	Ave		0.1941				6.4		20.0			
Chlorobromomethane	0.2096 0.2081	0.1998	0.2125	0.2003	0.2083	Ave		0.2064				2.5		20.0			
Tetrahydrofuran	0.0720 0.0795	0.0759	0.0825	0.0775	0.0815	Ave		0.0782				4.9		20.0			
Chloroform	0.3597 0.4300	0.3989	0.4331	0.4234	0.4333	Ave		0.4131			0.2000	7.1		20.0			
1,1,1-Trichloroethane	0.2584 0.3174	0.2802	0.3075	0.3090	0.3145	Ave		0.2978			0.1000	7.9		20.0			
Cyclohexane	0.2974 0.3060	0.2183	0.2760	0.2912	0.3026	Ave		0.2819			0.1000	11.7		20.0			
1,1-Dichloropropene	0.3395 0.3666	0.3387	0.3505	0.3501	0.3605	Ave		0.3510				3.2		20.0			
Carbon tetrachloride	0.2613 0.3093	0.2264	0.2724	0.2772	0.3000	Ave		0.2744			0.1000	10.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0084 0.0093	0.0074	0.0078	0.0085	0.0097	Ave		0.0085				10.1		20.0			
Benzene	0.9773 1.0660	1.0220	1.0742	1.0397	1.0682	Ave		1.0412			0.5000	3.6		20.0			
1,2-Dichloroethane	0.3961 0.3697	0.3827	0.3803	0.3625	0.3771	Ave		0.3781			0.1000	3.1		20.0			
n-Heptane	+++++ 0.1709	0.2884	0.1629	0.1584	0.1591	Lin1	0.1055	0.1629							0.9970		0.9900
Trichloroethene	0.2541 0.2829	0.2997	0.2875	0.2799	0.2864	Ave		0.2817			0.1500	5.4		20.0			
Methylcyclohexane	0.2846 0.3569	0.2848	0.3042	0.3184	0.3339	Ave		0.3138			0.1000	9.1		20.0			
1,2-Dichloropropane	0.2495 0.2481	0.1942	0.2495	0.2437	0.2470	Ave		0.2387			0.1000	9.2		20.0			
Dibromomethane	0.1552 0.1739	0.1655	0.1743	0.1666	0.1769	Ave		0.1687				4.7		20.0			
1,4-Dioxane	+++++ 0.0032	0.0024	0.0029	0.0030	0.0035	Ave		0.0030				13.8		20.0			
Dichlorobromomethane	0.3054 0.3294	0.2754	0.3271	0.3062	0.3291	Ave		0.3121			0.1500	6.8		20.0			
2-Chloroethyl vinyl ether	0.1560 0.1849	0.1341	0.1797	0.1726	0.1870	Ave		0.1691				12.1		20.0			
cis-1,3-Dichloropropene	0.2523 0.4313	0.2934	0.3728	0.3872	0.4186	Ave		0.3593			0.1500	19.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2026 0.2453	0.2461	0.2500	0.2299	0.2496	Ave		0.2373			0.0500	7.8		20.0			
Toluene	1.4206 1.4774	1.4725	1.5025	1.4923	1.5137	Ave		1.4798			0.4000	2.2		20.0			
trans-1,3-Dichloropropene	0.2796 0.5131	0.2726	0.4215	0.4591	0.4920	Lin1	-0.174	0.4989			0.1000				0.9970		0.9900
Ethyl methacrylate	0.3130 0.4707	0.3237	0.4263	0.4409	0.4731	Ave		0.4079				17.6		20.0			
1,1,2-Trichloroethane	0.3081 0.2999	0.2772	0.3080	0.3024	0.3068	Ave		0.3004			0.1000	3.9		20.0			
1,3-Dichloropropane	0.6075 0.5716	0.5788	0.5768	0.5793	0.5784	Ave		0.5821				2.2		20.0			
Tetrachloroethene	0.3586 0.3405	0.3383	0.3436	0.3387	0.3416	Ave		0.3436			0.1500	2.2		20.0			
2-Hexanone	0.2018 0.2018	0.1934	0.2073	0.1915	0.2197	Ave		0.2026			0.0500	5.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.1404 0.3065	0.1885	0.2484	0.2756	0.2950	Lin1	-0.105	0.2984							0.9980		0.9900
Ethylene Dibromide	0.2818 0.3054	0.3040	0.3311	0.3104	0.3187	Ave		0.3086				5.4		20.0			
Chlorobenzene	0.9750 1.0017	0.9551	1.0118	1.0056	1.0282	Ave		0.9962			0.3000	2.7		20.0			
1,1,1,2-Tetrachloroethane	0.2813 0.3318	0.2359	0.3172	0.3274	0.3332	Ave		0.3045				12.7		20.0			
Ethylbenzene	0.4404 0.5339	0.4911	0.5201	0.5113	0.5358	Ave		0.5054				7.1		20.0			
m-Xylene & p-Xylene	0.5992 0.6588	0.5788	0.6697	0.6570	0.6729	Ave		0.6394				6.3		20.0			
o-Xylene	0.5545 0.6792	0.5872	0.6405	0.6521	0.6814	Ave		0.6325				8.1		20.0			
Styrene	0.8056 1.1519	0.9111	1.1233	1.1040	1.1602	Ave		1.0427			0.3000	14.2		20.0			
Bromoform	+++++ 0.1766	0.0859	0.1170	0.1416	0.1675	Lin1	-0.133	0.1694			0.1000				0.9910		0.9900
Isopropylbenzene	1.2431 1.5845	1.3447	1.5455	1.5475	1.6237	Ave		1.4815			0.1000	10.2		20.0			
1,1,2,2-Tetrachloroethane	0.7108 0.7699	0.7110	0.7430	0.7870	0.8001	Ave		0.7536			0.3000	5.1		20.0			
Bromobenzene	0.8207 0.7612	0.6939	0.7347	0.7577	0.7503	Ave		0.7530				5.5		20.0			
1,2,3-Trichloropropane	0.2485 0.2711	0.3099	0.2817	0.2863	0.2921	Ave		0.2816				7.4		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1738	0.0625	0.0690	0.1124	0.1260	Ave		0.1087				41.8	*	20.0	NA		
N-Propylbenzene	0.6363 0.8060	0.6257	0.7201	0.7721	0.8051	Ave		0.7275				11.2		20.0			
2-Chlorotoluene	0.7681 0.7075	0.6942	0.6721	0.7044	0.7140	Ave		0.7100				4.5		20.0			
1,3,5-Trimethylbenzene	1.8942 2.3715	2.1949	2.1735	2.3146	2.3769	Ave		2.2209				8.2		20.0			
4-Chlorotoluene	0.5507 0.7519	0.7443	0.6934	0.7605	0.7709	Ave		0.7119				11.7		20.0			
tert-Butylbenzene	2.0342 2.0192	1.6703	2.0785	2.1994	2.0101	Ave		2.0019				8.8		20.0			
1,2,4-Trimethylbenzene	2.1059 2.4987	2.1501	2.3475	2.3966	2.5422	Ave		2.3402				7.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	0.4930 0.6053	0.4674	0.5469	0.5678	0.6023	Ave		0.5471				10.4		20.0			
1,3-Dichlorobenzene	1.4747 1.4345	1.3741	1.3942	1.4360	1.4594	Ave		1.4288			0.6000	2.7		20.0			
4-Isopropyltoluene	1.9791 2.4964	1.8194	2.2548	2.3826	2.4732	Ave		2.2342				12.4		20.0			
1,4-Dichlorobenzene	1.5384 1.4732	1.4645	1.4443	1.4810	1.5290	Ave		1.4884			0.5000	2.5		20.0			
n-Butylbenzene	1.9787 2.0882	1.7947	1.8431	1.9428	2.0350	Ave		1.9471				5.8		20.0			
1,2-Dichlorobenzene	1.4745 1.4141	1.3672	1.4031	1.4539	1.4554	Ave		1.4280			0.4000	2.8		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1722	0.0650	0.1512	0.1567	0.1716	Lin1	-0.120	0.1719			0.0500				0.9990		0.9900
1,2,4-Trichlorobenzene	0.8436 0.9146	0.6838	0.8064	0.8665	0.8854	Ave		0.8334			0.2000	9.8		20.0			
Hexachlorobutadiene	0.4432 0.3312	0.3109	0.2943	0.3070	0.3063	Ave		0.3322				16.8		20.0			
Naphthalene	2.4514 2.7719	2.3780	2.4048	2.6107	2.6834	Ave		2.5500				6.4		20.0			
1,2,3-Trichlorobenzene	0.9107 0.8620	0.7802	0.7873	0.8217	0.8212	Ave		0.8305				5.9		20.0			
Dibromofluoromethane (Surr)	0.1929 0.2274	0.2019	0.2216	0.2329	0.2400	Ave		0.2195				8.4		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2494 0.2961	0.2965	0.3087	0.2986	0.3032	Ave		0.2921				7.3		20.0			
Toluene-d8 (Surr)	1.2398 1.2745	1.2319	1.2744	1.2585	1.3026	Ave		1.2636				2.1		20.0			
4-Bromofluorobenzene (Surr)	0.3856 0.4810	0.4277	0.4870	0.4711	0.5020	Ave		0.4591				9.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-253710/8	UX959470.D
Level 2	STD8260 240-253710/9	UX959471.D
Level 3	STD8260 240-253710/10	UX959472.D
Level 4	ICIS 240-253710/11	UX959473.D
Level 5	STD8260 240-253710/12	UX959474.D
Level 6	STD8260 240-253710/13	UX959475.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	7215 1354562	14123	150362	320332	680696	0.500 80.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	9901 1453567	17721	185864	367090	748373	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7925 1486854	17259	187275	371300	754695	0.500 80.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	+++++ 1423385	11278	140691	329806	684778	+++++ 80.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	5102 1089114	10150	110611	226377	465972	0.500 80.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	4063 1078543	9943	125457	250787	515011	0.500 80.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	9809 2399500	21731	290176	588799	1215776	0.500 80.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	8183 1981425	20048	224754	471491	985900	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	5020 1068215	10830	121994	258562	517231	0.500 80.0	1.00	10.0	20.0	40.0
Acrolein	FB	Ave	4996 774717	7773	81367	179175	375498	2.50 400	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	9363 2293011	22261	270090	544040	1101451	0.500 80.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 920206	16285	119921	226597	411943	+++++ 160	2.00	20.0	40.0	80.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	+++++ 1240587	8703	139978	284084	597254	+++++ 80.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	10343 2015382	21376	227697	470746	961379	0.500 80.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Ave	20669 3737271	53235	409562	791343	1704128	0.500 80.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	9228 1679941	18891	170519	380582	786100	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	30458 4660013	59186	542039	1126032	2285728	2.50 400	5.00	50.0	100	200
Methylene Chloride	FB	Ave	+++++ 1557352	22938	199152	380479	772946	+++++ 80.0	1.00	10.0	20.0	40.0
2-Methyl-2-propanol	FB	Ave	6513 1295882	11111	136439	282930	594168	5.00 800	10.0	100	200	400
Acrylonitrile	FB	Ave	24154 4552207	46141	511631	1091842	2165761	5.00 800	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	8545 1520509	18575	177300	373166	751752	0.500 80.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	20723 3779507	39178	426233	903997	1809706	0.500 80.0	1.00	10.0	20.0	40.0
Hexane	FB	Ave	6420 1263719	12219	133920	282890	579408	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	10644 1969405	21745	226419	478452	950553	0.500 80.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Ave	10652 1895924	21884	195659	431579	922831	0.500 80.0	1.00	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	8290 1606902	21114	186738	388210	772577	0.500 80.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	6997 907503	11366	127084	227570	472990	1.00 160	2.00	20.0	40.0	80.0
2,2-Dichloropropane	FB	Ave	5006 891342	8909	100902	213339	422245	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	5520 906515	10389	106894	218284	434459	0.500 80.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	3793 692775	7896	82984	169018	339903	1.00 160	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	9473 1872919	20745	217895	461453	903747	0.500 80.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	6804 1382454	14575	154678	336825	655855	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	7831 1332555	11355	138838	317438	631089	0.500 80.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	8940 1596514	17616	176349	381603	751751	0.500 80.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6880 1347035	11775	137053	302139	625742	0.500 80.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	5499 1012918	9667	98074	231505	504642	12.5 2000	25.0	250	500	1000
Benzene	FB	Ave	25736 4642598	53152	540436	1133250	2227875	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	10431 1610337	19906	191345	395098	786494	0.500 80.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 744347	14998	81967	172616	331832	+++++ 80.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	6691 1232077	15586	144653	305039	597315	0.500 80.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	7496 1554611	14811	153052	347047	696424	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6571 1080421	10098	125536	265634	515135	0.500 80.0	1.00	10.0	20.0	40.0
Dibromomethane	FB	Ave	4088 757541	8608	87680	181584	368865	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 277443	2463	29015	64911	145294	+++++ 1600	20.0	200	400	800
Dichlorobromomethane	FB	Ave	8043 1434574	14324	164581	333730	686416	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	8218 1610737	13952	180820	376178	779947	1.00 160	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	6643 1878459	15258	187548	422061	873107	0.500 80.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	10672 2136837	25597	251517	501194	1041090	1.00 160	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	29532 5186071	61194	598326	1261803	2529996	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Lin1	5813 1801088	11327	167834	388177	822247	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6506 1652174	13451	169777	372766	790770	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6405 1052853	11521	122635	255716	512844	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	12629 2006562	24055	229685	489830	966744	0.500 80.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7455 1195419	14057	136836	286414	571006	0.500 80.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	8392 1416575	16077	165132	323820	734278	1.00 160	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Lin1	2918 1075851	7834	98909	233033	493054	0.500 80.0	1.00	10.0	20.0	40.0
Ethylene Dibromide	CBNZ d5	Ave	5858 1071955	12633	131863	262473	532697	0.500 80.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	20269 3516256	39691	402931	850273	1718467	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5848 1164842	9805	126319	276847	556973	0.500 80.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	9155 1874140	20408	207128	432295	895465	0.500 80.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	12456 2312443	24055	266688	555537	1124711	0.500 80.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	11527 2384189	24402	255067	551379	1138821	0.500 80.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	16747 4043520	37864	447307	933518	1939179	0.500 80.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Lin1	+++++ 619768	3569	46601	119719	280012	+++++ 80.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25842 5562069	55884	615469	1308494	2713786	0.500 80.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	7607 1511652	15462	175737	370559	776994	0.500 80.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8783 1494497	15089	173754	356741	728602	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2659 532370	6740	66634	134802	283668	0.500 80.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 341206	1360	16315	52945	122354	+++++ 80.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	6810 1582609	13606	170304	363526	781811	0.500 80.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	8220 1389060	15097	158963	331668	693358	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	20272 4656383	47731	514064	1089816	2308137	0.500 80.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	5894 1476314	16185	164004	358055	748607	0.500 80.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	21770 3964535	36324	491581	1035589	1952027	0.500 80.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	22538 4906094	46757	555203	1128409	2468715	0.500 80.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	5276 1188410	10165	129358	267328	584872	0.500 80.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	15783 2816561	29883	329743	676138	1417159	0.500 80.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	21181 4901502	39565	533294	1121821	2401669	0.500 80.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	16464 2892481	31847	341584	697335	1484742	0.500 80.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-77949-1 Analy Batch No.: 253710

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/31/2016 13:31 Calibration End Date: 10/31/2016 15:31 Calibration ID: 36877

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	21177 4100036	39028	435911	914772	1976160	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	15781 2776485	29731	331849	684572	1413357	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin1	+++++ 338136	1414	35755	73785	166645	+++++ 80.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9028 1795714	14871	190723	408008	859827	0.500 80.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4743 650351	6760	69614	144557	297461	0.500 80.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	26236 5442383	51713	568754	1229237	2605820	0.500 80.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9747 1692494	16966	186206	386895	797488	0.500 80.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	5080 990293	10501	111477	253847	500599	0.500 80.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	6569 1289603	15422	155294	325462	632418	0.500 80.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	25773 4473827	51197	507507	1064111	2177199	0.500 80.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	8016 1688410	17773	193918	398362	839102	0.500 80.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2754	0.1000	0.0174	0.0200	-13.0	20.0
Chloromethane	Ave	0.3878	0.3485	0.1000	0.0180	0.0200	-10.1	20.0
Vinyl chloride	Ave	0.3718	0.3559	0.1000	0.0191	0.0200	-4.3	20.0
Butadiene	Ave	0.2937	0.2643		0.0180	0.0200	-10.0	30.0
Bromomethane	Ave	0.2332	0.2350	0.0500	0.0202	0.0200	0.8	20.0
Chloroethane	Ave	0.2186	0.2331	0.0500	0.0213	0.0200	6.7	20.0
Dichlorofluoromethane	Ave	0.5919	0.5918		0.0200	0.0200	-0.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.4116	0.1000	0.0198	0.0200	-1.1	20.0
Ethyl ether	Ave	0.2501	0.2556		0.0204	0.0200	2.2	20.0
Acrolein	Ave	0.0337	0.0396		0.117	0.100	17.5	50.0
1,1-Dichloroethene	Ave	0.2878	0.2795	0.1000	0.0194	0.0200	-2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1533	0.0500	0.0174	0.0200	-13.2	20.0
Acetone	Lin1		0.0696	0.0100	0.0321	0.0400	-19.8	50.0
Iodomethane	Ave	0.4621	0.4372		0.0189	0.0200	-5.4	20.0
Carbon disulfide	Ave	0.9514	0.8428	0.1000	0.0177	0.0200	-11.4	20.0
3-Chloro-1-propene	Ave	0.2013	0.2425		0.0241	0.0200	20.5*	20.0
Methyl acetate	Ave	0.1624	0.1554	0.1000	0.0957	0.100	-4.3	20.0
Methylene Chloride	Lin1		0.3421	0.1000	0.0205	0.0200	2.4	50.0
2-Methyl-2-propanol	Lin1		0.0196		0.202	0.200	0.8	50.0
Acrylonitrile	Ave	0.0864	0.0848		0.196	0.200	-1.9	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.3170	0.1000	0.0201	0.0200	0.3	20.0
Methyl tert-butyl ether	Ave	0.8308	0.8348	0.1000	0.0201	0.0200	0.5	20.0
Hexane	Ave	0.2897	0.2684		0.0185	0.0200	-7.4	20.0
1,1-Dichloroethane	Ave	0.5224	0.5289	0.2000	0.0202	0.0200	1.2	20.0
Vinyl acetate	Ave	0.4093	0.4128		0.0202	0.0200	0.9	50.0
2,2-Dichloropropane	Ave	0.3598	0.3379		0.0188	0.0200	-6.1	20.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3547	0.1000	0.0202	0.0200	0.8	20.0
2-Butanone (MEK)	Ave	0.0989	0.0855	0.0100	0.0346	0.0400	-13.6	20.0
Chlorobromomethane	Ave	0.1468	0.1543		0.0210	0.0200	5.1	20.0
Tetrahydrofuran	Ave	0.0577	0.0579		0.0401	0.0400	0.3	20.0
Chloroform	Ave	0.5317	0.5428	0.2000	0.0204	0.0200	2.1	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4432	0.1000	0.0203	0.0200	1.5	20.0
Cyclohexane	Ave	0.4257	0.3980	0.1000	0.0187	0.0200	-6.5	20.0
1,1-Dichloropropene	Ave	0.3946	0.4168		0.0211	0.0200	5.6	20.0
Carbon tetrachloride	Ave	0.3605	0.3553	0.1000	0.0197	0.0200	-1.4	20.0
Isobutyl alcohol	Ave	0.0063	0.0067		0.531	0.500	6.3	20.0
1,2-Dichloroethane	Ave	0.3955	0.4072	0.1000	0.0206	0.0200	2.9	20.0
Benzene	Ave	1.238	1.256	0.5000	0.0203	0.0200	1.4	20.0
n-Heptane	Lin1		0.1419		0.0184	0.0200	-8.2	20.0
Trichloroethene	Ave	0.3129	0.3131	0.1500	0.0200	0.0200	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3824	0.1000	0.0192	0.0200	-4.2	20.0
1,2-Dichloropropane	Ave	0.2764	0.2828	0.1000	0.0205	0.0200	2.3	20.0
Dibromomethane	Ave	0.1648	0.1637		0.0199	0.0200	-0.6	20.0
1,4-Dioxane	Ave	0.0024	0.0024		0.396	0.400	-1.0	50.0
Dichlorobromomethane	Ave	0.3799	0.3911	0.1500	0.0206	0.0200	3.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1427		0.0202	0.0200	1.0	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.4754	0.1500	0.0208	0.0200	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.2065	0.0500	0.0404	0.0400	1.1	20.0
Toluene	Ave	1.523	1.556	0.4000	0.0204	0.0200	2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4662	0.1000	0.0200	0.0200	0.1	20.0
Ethyl methacrylate	Ave	0.3726	0.3982		0.0214	0.0200	6.8	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2798	0.1000	0.0211	0.0200	5.4	20.0
1,3-Dichloropropane	Ave	0.4781	0.4821		0.0202	0.0200	0.8	20.0
Tetrachloroethene	Ave	0.2566	0.2648	0.1500	0.0206	0.0200	3.2	20.0
2-Hexanone	Ave	0.1699	0.1662	0.0500	0.0391	0.0400	-2.2	20.0
Chlorodibromomethane	Ave	0.3007	0.3087		0.0205	0.0200	2.7	20.0
Ethylene Dibromide	Ave	0.2584	0.2744		0.0212	0.0200	6.2	20.0
Chlorobenzene	Ave	0.9683	0.9766	0.3000	0.0202	0.0200	0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3543		0.0211	0.0200	5.5	20.0
Ethylbenzene	Ave	0.5186	0.5447		0.0210	0.0200	5.0	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6832		0.0208	0.0200	4.1	20.0
o-Xylene	Ave	0.6658	0.6969		0.0209	0.0200	4.7	20.0
Styrene	Ave	1.131	1.212	0.3000	0.0214	0.0200	7.1	20.0
Bromoform	Ave	0.1830	0.1912	0.1000	0.0209	0.0200	4.5	20.0
Isopropylbenzene	Ave	1.648	1.723	0.1000	0.0209	0.0200	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.6059	0.3000	0.0208	0.0200	4.2	20.0
Bromobenzene	Ave	0.6921	0.7158		0.0207	0.0200	3.4	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1976		0.0221	0.0200	10.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1763		0.0218	0.0200	8.8	20.0
N-Propylbenzene	Ave	0.7108	0.7354		0.0207	0.0200	3.5	20.0
2-Chlorotoluene	Ave	0.6372	0.6789		0.0213	0.0200	6.5	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.355		0.0209	0.0200	4.7	20.0
4-Chlorotoluene	Ave	0.6808	0.7194		0.0211	0.0200	5.7	20.0
tert-Butylbenzene	Ave	1.832	1.861		0.0203	0.0200	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.511		0.0210	0.0200	4.8	20.0
sec-Butylbenzene	Ave	2.517	2.551		0.0203	0.0200	1.3	20.0
1,3-Dichlorobenzene	Ave	1.358	1.413	0.6000	0.0208	0.0200	4.0	20.0
4-Isopropyltoluene	Ave	2.194	2.236		0.0204	0.0200	1.9	20.0
1,4-Dichlorobenzene	Ave	1.421	1.444	0.5000	0.0203	0.0200	1.6	20.0
n-Butylbenzene	Ave	1.821	1.891		0.0208	0.0200	3.8	20.0
1,2-Dichlorobenzene	Ave	1.283	1.343	0.4000	0.0209	0.0200	4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: ICV 240-272263/20 Calibration Date: 03/29/2017 19:27

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1402.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1071	0.0500	0.0207	0.0200	3.4	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6678	0.2000	0.0204	0.0200	1.8	50.0
Hexachlorobutadiene	Ave	0.2651	0.2451		0.0185	0.0200	-7.6	20.0
Naphthalene	Ave	1.583	1.643		0.0208	0.0200	3.8	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5563		0.0204	0.0200	2.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2578		0.0194	0.0200	-3.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3176		0.0196	0.0200	-1.9	20.0
Toluene-d8 (Surr)	Ave	1.277	1.236		0.0194	0.0200	-3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4880		0.0194	0.0200	-2.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274738/3 | Calibration Date: 04/14/2017 12:04

Instrument ID: A3UX16 | Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) | Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1714.D | Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3166	0.2565	0.1000	0.0162	0.0200	-19.0	20.0
Chloromethane	Ave	0.3878	0.3133	0.1000	0.0162	0.0200	-19.2	20.0
Vinyl chloride	Ave	0.3718	0.3305	0.1000	0.0178	0.0200	-11.1	20.0
Butadiene	Ave	0.2937	0.2789		0.0190	0.0200	-5.0	20.0
Bromomethane	Ave	0.2332	0.2132	0.0500	0.0183	0.0200	-8.5	20.0
Chloroethane	Ave	0.2186	0.2174	0.0500	0.0199	0.0200	-0.5	20.0
Dichlorofluoromethane	Ave	0.5919	0.5330		0.0180	0.0200	-10.0	20.0
Trichlorofluoromethane	Ave	0.4159	0.3452	0.1000	0.0166	0.0200	-17.0	20.0
Ethyl ether	Ave	0.2501	0.2241		0.0179	0.0200	-10.4	20.0
Acrolein	Ave	0.0337	0.0314		0.0931	0.100	-6.9	50.0
1,1-Dichloroethene	Ave	0.2878	0.2580	0.1000	0.0179	0.0200	-10.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin1		0.1758	0.0500	0.0199	0.0200	-0.7	20.0
Acetone	Lin1		0.0929	0.0100	0.0432	0.0400	8.1	50.0
Iodomethane	Ave	0.4621	0.4229		0.0183	0.0200	-8.5	20.0
Carbon disulfide	Ave	0.9514	0.8462	0.1000	0.0178	0.0200	-11.1	20.0
3-Chloro-1-propene	Ave	0.2013	0.1758		0.0175	0.0200	-12.7	20.0
Methyl acetate	Ave	0.1624	0.1365	0.1000	0.0840	0.100	-16.0	20.0
Methylene Chloride	Lin1		0.2970	0.1000	0.0176	0.0200	-12.2	50.0
2-Methyl-2-propanol	Lin1		0.0152		0.155	0.200	-22.3	50.0
Acrylonitrile	Ave	0.0864	0.0714		0.165	0.200	-17.4	20.0
trans-1,2-Dichloroethene	Ave	0.3161	0.2807	0.1000	0.0178	0.0200	-11.2	20.0
Methyl tert-butyl ether	Ave	0.8308	0.6854	0.1000	0.0165	0.0200	-17.5	20.0
Hexane	Ave	0.2897	0.2432		0.0168	0.0200	-16.0	20.0
1,1-Dichloroethane	Ave	0.5224	0.4871	0.2000	0.0186	0.0200	-6.8	20.0
Vinyl acetate	Ave	0.4093	0.3382		0.0165	0.0200	-17.4	50.0
cis-1,2-Dichloroethene	Ave	0.3518	0.3250	0.1000	0.0185	0.0200	-7.6	20.0
2,2-Dichloropropane	Ave	0.3598	0.3449		0.0192	0.0200	-4.1	20.0
2-Butanone (MEK)	Ave	0.0989	0.0787	0.0100	0.0318	0.0400	-20.4*	20.0
Chlorobromomethane	Ave	0.1468	0.1339		0.0182	0.0200	-8.8	20.0
Tetrahydrofuran	Ave	0.0577	0.0505		0.0351	0.0400	-12.4	20.0
Chloroform	Ave	0.5317	0.4922	0.2000	0.0185	0.0200	-7.4	20.0
1,1,1-Trichloroethane	Ave	0.4368	0.4031	0.1000	0.0185	0.0200	-7.7	20.0
Cyclohexane	Ave	0.4257	0.3798	0.1000	0.0178	0.0200	-10.8	20.0
1,1-Dichloropropene	Ave	0.3946	0.3653		0.0185	0.0200	-7.4	20.0
Carbon tetrachloride	Ave	0.3605	0.2991	0.1000	0.0166	0.0200	-17.0	20.0
Isobutyl alcohol	Ave	0.0063	0.0049		0.388	0.500	-22.5*	20.0
1,2-Dichloroethane	Ave	0.3955	0.3561	0.1000	0.0180	0.0200	-10.0	20.0
Benzene	Ave	1.238	1.134	0.5000	0.0183	0.0200	-8.4	20.0
n-Heptane	Lin1		0.1245		0.0154	0.0200	-22.8*	20.0
Trichloroethene	Ave	0.3129	0.2793	0.1500	0.0179	0.0200	-10.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274738/3 Calibration Date: 04/14/2017 12:04

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1714.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3990	0.3288	0.1000	0.0165	0.0200	-17.6	20.0
1,2-Dichloropropane	Ave	0.2764	0.2489	0.1000	0.0180	0.0200	-9.9	20.0
Dibromomethane	Ave	0.1648	0.1430		0.0174	0.0200	-13.2	20.0
1,4-Dioxane	Ave	0.0024	0.0018		0.309	0.400	-22.7	50.0
Dichlorobromomethane	Ave	0.3799	0.3319	0.1500	0.0175	0.0200	-12.6	20.0
2-Chloroethyl vinyl ether	Ave	0.1413	0.1127		0.0319	0.0400	-20.2*	20.0
cis-1,3-Dichloropropene	Ave	0.4579	0.3992	0.1500	0.0174	0.0200	-12.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2043	0.1522	0.0500	0.0298	0.0400	-25.5*	20.0
Toluene	Ave	1.523	1.571	0.4000	0.0206	0.0200	3.2	20.0
trans-1,3-Dichloropropene	Ave	0.4656	0.4442	0.1000	0.0191	0.0200	-4.6	20.0
Ethyl methacrylate	Ave	0.3726	0.3362		0.0180	0.0200	-9.8	20.0
1,1,2-Trichloroethane	Ave	0.2654	0.2574	0.1000	0.0194	0.0200	-3.0	20.0
1,3-Dichloropropane	Ave	0.4781	0.4540		0.0190	0.0200	-5.0	20.0
Tetrachloroethene	Ave	0.2566	0.2718	0.1500	0.0212	0.0200	5.9	20.0
2-Hexanone	Ave	0.1699	0.1364	0.0500	0.0321	0.0400	-19.7	20.0
Chlorodibromomethane	Ave	0.3007	0.2883		0.0192	0.0200	-4.1	20.0
Ethylene Dibromide	Ave	0.2584	0.2535		0.0196	0.0200	-1.9	20.0
Chlorobenzene	Ave	0.9683	0.9550	0.3000	0.0197	0.0200	-1.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3358	0.3394		0.0202	0.0200	1.1	20.0
Ethylbenzene	Ave	0.5186	0.5259		0.0203	0.0200	1.4	20.0
m-Xylene & p-Xylene	Ave	0.6562	0.6592		0.0201	0.0200	0.5	20.0
o-Xylene	Ave	0.6658	0.6847		0.0206	0.0200	2.8	20.0
Styrene	Ave	1.131	1.100	0.3000	0.0194	0.0200	-2.8	20.0
Bromoform	Ave	0.1830	0.1660	0.1000	0.0181	0.0200	-9.3	20.0
Isopropylbenzene	Ave	1.648	1.663	0.1000	0.0202	0.0200	0.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5816	0.5518	0.3000	0.0190	0.0200	-5.1	20.0
Bromobenzene	Ave	0.6921	0.6870		0.0199	0.0200	-0.7	20.0
1,2,3-Trichloropropane	Ave	0.1791	0.1730		0.0193	0.0200	-3.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1620	0.1480		0.0183	0.0200	-8.6	20.0
N-Propylbenzene	Ave	0.7108	0.7328		0.0206	0.0200	3.1	20.0
2-Chlorotoluene	Ave	0.6372	0.6665		0.0209	0.0200	4.6	20.0
1,3,5-Trimethylbenzene	Ave	2.250	2.368		0.0211	0.0200	5.3	20.0
4-Chlorotoluene	Ave	0.6808	0.6678		0.0196	0.0200	-1.9	20.0
tert-Butylbenzene	Ave	1.832	1.958		0.0214	0.0200	6.9	20.0
1,2,4-Trimethylbenzene	Ave	2.397	2.478		0.0207	0.0200	3.4	20.0
sec-Butylbenzene	Ave	2.517	2.621		0.0208	0.0200	4.1	20.0
1,3-Dichlorobenzene	Ave	1.358	1.349	0.6000	0.0199	0.0200	-0.7	20.0
4-Isopropyltoluene	Ave	2.194	2.260		0.0206	0.0200	3.0	20.0
1,4-Dichlorobenzene	Ave	1.421	1.383	0.5000	0.0195	0.0200	-2.7	20.0
n-Butylbenzene	Ave	1.821	1.891		0.0208	0.0200	3.9	20.0
1,2-Dichlorobenzene	Ave	1.283	1.326	0.4000	0.0207	0.0200	3.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274738/3 Calibration Date: 04/14/2017 12:04

Instrument ID: A3UX16 Calib Start Date: 03/29/2017 14:02

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/29/2017 15:56

Lab File ID: UXM1714.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.0902	0.0500	0.0175	0.0200	-12.3	50.0
1,2,4-Trichlorobenzene	Ave	0.6560	0.6627	0.2000	0.0202	0.0200	1.0	50.0
Hexachlorobutadiene	Ave	0.2651	0.2289		0.0173	0.0200	-13.7	20.0
Naphthalene	Ave	1.583	1.526		0.0193	0.0200	-3.6	50.0
1,2,3-Trichlorobenzene	Ave	0.5446	0.5050		0.0185	0.0200	-7.3	20.0
Dibromofluoromethane (Surr)	Ave	0.2661	0.2426		0.0182	0.0200	-8.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3237	0.3094		0.0191	0.0200	-4.4	20.0
Toluene-d8 (Surr)	Ave	1.277	1.351		0.0212	0.0200	5.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5021	0.4908		0.0196	0.0200	-2.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2533	0.1000	0.0171	0.0200	-14.4	20.0
Chloromethane	Ave	0.3526	0.3515	0.1000	0.0199	0.0200	-0.3	20.0
Vinyl chloride	Ave	0.3415	0.3456	0.1000	0.0202	0.0200	1.2	20.0
Butadiene	Ave	0.2909	0.3127		0.0215	0.0200	7.5	30.0
Bromomethane	Ave	0.2150	0.2223	0.0500	0.0207	0.0200	3.4	20.0
Chloroethane	Ave	0.2199	0.2452	0.0500	0.0223	0.0200	11.5	20.0
Dichlorofluoromethane	Ave	0.5069	0.5584		0.0220	0.0200	10.2	20.0
Trichlorofluoromethane	Ave	0.4172	0.4225	0.1000	0.0203	0.0200	1.3	20.0
Ethyl ether	Ave	0.2286	0.2300		0.0201	0.0200	0.6	20.0
Acrolein	Ave	0.0341	0.0543		0.159	0.100	59.1*	50.0
1,1-Dichloroethene	Ave	0.4790	0.4601	0.1000	0.0192	0.0200	-4.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2481	0.0500	0.0194	0.0200	-2.9	20.0
Acetone	Lin1		0.0845	0.0100	0.0317	0.0400	-20.7	50.0
Iodomethane	Ave	0.4353	0.4584		0.0211	0.0200	5.3	20.0
Carbon disulfide	Ave	0.8373	0.7252	0.1000	0.0173	0.0200	-13.4	20.0
3-Chloro-1-propene	Ave	0.3607	0.3451		0.0191	0.0200	-4.3	20.0
Methyl acetate	Ave	0.2190	0.2129	0.1000	0.0972	0.100	-2.8	20.0
Methylene Chloride	Ave	0.3828	0.3604	0.1000	0.0188	0.0200	-5.9	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0282		0.215	0.200	7.6	50.0
Acrylonitrile	Ave	0.0984	0.1032		0.210	0.200	4.8	20.0
Methyl tert-butyl ether	Ave	0.8254	0.8372	0.1000	0.0203	0.0200	1.4	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3345	0.1000	0.0192	0.0200	-3.8	20.0
Hexane	Ave	0.2621	0.2567		0.0196	0.0200	-2.0	20.0
1,1-Dichloroethane	Ave	0.4365	0.4281	0.2000	0.0196	0.0200	-1.9	20.0
Vinyl acetate	Ave	0.4147	0.3918		0.0189	0.0200	-5.5	50.0
2-Butanone (MEK)	Ave	0.1151	0.1224	0.0100	0.0426	0.0400	6.4	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3542	0.1000	0.0194	0.0200	-2.9	20.0
2,2-Dichloropropane	Ave	0.1941	0.1822		0.0188	0.0200	-6.1	20.0
Chlorobromomethane	Ave	0.2064	0.2118		0.0205	0.0200	2.6	20.0
Tetrahydrofuran	Ave	0.0782	0.0777		0.0398	0.0400	-0.6	20.0
Chloroform	Ave	0.4131	0.4211	0.2000	0.0204	0.0200	1.9	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.3065	0.1000	0.0206	0.0200	2.9	20.0
Cyclohexane	Ave	0.2819	0.2737	0.1000	0.0194	0.0200	-2.9	20.0
1,1-Dichloropropene	Ave	0.3510	0.3315		0.0189	0.0200	-5.6	20.0
Carbon tetrachloride	Ave	0.2744	0.2728	0.1000	0.0199	0.0200	-0.6	20.0
Isobutyl alcohol	Ave	0.0085	0.0090		0.531	0.500	6.1	20.0
1,2-Dichloroethane	Ave	0.3781	0.3730	0.1000	0.0197	0.0200	-1.4	20.0
Benzene	Ave	1.041	1.037	0.5000	0.0199	0.0200	-0.4	20.0
n-Heptane	Lin1		0.1424		0.0168	0.0200	-15.8	20.0
Trichloroethene	Ave	0.2817	0.2733	0.1500	0.0194	0.0200	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.3031	0.1000	0.0193	0.0200	-3.4	20.0
1,2-Dichloropropane	Ave	0.2387	0.2474	0.1000	0.0207	0.0200	3.7	20.0
1,4-Dioxane	Ave	0.0030	0.0033		0.443	0.400	10.8	50.0
Dibromomethane	Ave	0.1687	0.1663		0.0197	0.0200	-1.4	20.0
Dichlorobromomethane	Ave	0.3121	0.3023	0.1500	0.0194	0.0200	-3.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1779		0.0210	0.0200	5.2	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3907	0.1500	0.0218	0.0200	8.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2443	0.0500	0.0412	0.0400	2.9	20.0
Toluene	Ave	1.480	1.413	0.4000	0.0191	0.0200	-4.5	20.0
trans-1,3-Dichloropropene	Lin1		0.4109	0.1000	0.0168	0.0200	-15.9	20.0
Ethyl methacrylate	Ave	0.4079	0.4428		0.0217	0.0200	8.5	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2990	0.1000	0.0199	0.0200	-0.5	20.0
1,3-Dichloropropane	Ave	0.5821	0.5487		0.0189	0.0200	-5.7	20.0
Tetrachloroethene	Ave	0.3436	0.3278	0.1500	0.0191	0.0200	-4.6	20.0
2-Hexanone	Ave	0.2026	0.2188	0.0500	0.0432	0.0400	8.0	20.0
Chlorodibromomethane	Lin1		0.2534		0.0173	0.0200	-13.3	20.0
Ethylene Dibromide	Ave	0.3086	0.3139		0.0203	0.0200	1.7	20.0
Chlorobenzene	Ave	0.996	0.9792	0.3000	0.0197	0.0200	-1.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.3082		0.0202	0.0200	1.2	20.0
Ethylbenzene	Ave	0.5054	0.4868		0.0193	0.0200	-3.7	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6106		0.0191	0.0200	-4.5	20.0
o-Xylene	Ave	0.6325	0.6033		0.0191	0.0200	-4.6	20.0
Styrene	Ave	1.043	1.068	0.3000	0.0205	0.0200	2.4	20.0
Bromoform	Lin1		0.1338	0.1000	0.0166	0.0200	-17.1	20.0
Isopropylbenzene	Ave	1.482	1.476	0.1000	0.0199	0.0200	-0.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.8038	0.3000	0.0213	0.0200	6.7	20.0
Bromobenzene	Ave	0.7530	0.7621		0.0202	0.0200	1.2	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2807		0.0199	0.0200	-0.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.0976		0.0179	0.0200	-10.3	20.0
N-Propylbenzene	Ave	0.7275	0.7555		0.0208	0.0200	3.8	20.0
2-Chlorotoluene	Ave	0.7100	0.7027		0.0198	0.0200	-1.0	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.248		0.0202	0.0200	1.2	20.0
4-Chlorotoluene	Ave	0.7119	0.7423		0.0209	0.0200	4.3	20.0
tert-Butylbenzene	Ave	2.002	1.877		0.0188	0.0200	-6.2	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.374		0.0203	0.0200	1.4	20.0
sec-Butylbenzene	Ave	0.5471	0.5588		0.0204	0.0200	2.1	20.0
1,3-Dichlorobenzene	Ave	1.429	1.429	0.6000	0.0200	0.0200	0.0	20.0
4-Isopropyltoluene	Ave	2.234	2.314		0.0207	0.0200	3.6	20.0
1,4-Dichlorobenzene	Ave	1.488	1.507	0.5000	0.0202	0.0200	1.2	20.0
n-Butylbenzene	Ave	1.947	1.835		0.0189	0.0200	-5.7	20.0
1,2-Dichlorobenzene	Ave	1.428	1.430	0.4000	0.0200	0.0200	0.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: ICV 240-253710/22 Calibration Date: 10/31/2016 19:09

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX959484.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1570	0.0500	0.0190	0.0200	-5.2	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.8250	0.2000	0.0198	0.0200	-1.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2855		0.0172	0.0200	-14.1	20.0
Naphthalene	Ave	2.550	2.625		0.0206	0.0200	3.0	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.8077		0.0195	0.0200	-2.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2034		0.0185	0.0200	-7.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2643		0.0181	0.0200	-9.5	20.0
Toluene-d8 (Surr)	Ave	1.264	1.172		0.0185	0.0200	-7.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4615		0.0201	0.0200	0.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274539/3 Calibration Date: 04/13/2017 09:42

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963119.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.3214	0.1000	0.0217	0.0200	8.6	20.0
Chloromethane	Ave	0.3526	0.3395	0.1000	0.0193	0.0200	-3.7	20.0
Vinyl chloride	Ave	0.3415	0.3397	0.1000	0.0199	0.0200	-0.5	20.0
Butadiene	Ave	0.2909	0.2643		0.0182	0.0200	-9.1	20.0
Bromomethane	Ave	0.2150	0.1961	0.0500	0.0182	0.0200	-8.8	20.0
Chloroethane	Ave	0.2199	0.2252	0.0500	0.0205	0.0200	2.4	20.0
Dichlorofluoromethane	Ave	0.5069	0.4918		0.0194	0.0200	-3.0	20.0
Trichlorofluoromethane	Ave	0.4172	0.3745	0.1000	0.0180	0.0200	-10.2	20.0
Ethyl ether	Ave	0.2286	0.2064		0.0181	0.0200	-9.7	20.0
Acrolein	Ave	0.0341	0.0353		0.104	0.100	3.6	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2080	0.0500	0.0163	0.0200	-18.6	20.0
1,1-Dichloroethene	Ave	0.4790	0.4255	0.1000	0.0178	0.0200	-11.2	20.0
Acetone	Lin1		0.0883	0.0100	0.0332	0.0400	-17.0	50.0
Iodomethane	Ave	0.4353	0.3937		0.0181	0.0200	-9.6	20.0
Carbon disulfide	Ave	0.8373	0.5872	0.1000	0.0140	0.0200	-29.9*	20.0
3-Chloro-1-propene	Ave	0.3607	0.2765		0.0153	0.0200	-23.4*	20.0
Methyl acetate	Ave	0.2190	0.1797	0.1000	0.0820	0.100	-18.0	20.0
Methylene Chloride	Ave	0.3828	0.3723	0.1000	0.0194	0.0200	-2.8	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0188		0.143	0.200	-28.5	50.0
Acrylonitrile	Ave	0.0984	0.0978		0.199	0.200	-0.6	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7329	0.1000	0.0178	0.0200	-11.2	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3323	0.1000	0.0191	0.0200	-4.4	20.0
Hexane	Ave	0.2621	0.2124		0.0162	0.0200	-19.0	20.0
1,1-Dichloroethane	Ave	0.4365	0.3988	0.2000	0.0183	0.0200	-8.6	20.0
Vinyl acetate	Ave	0.4147	0.3482		0.0168	0.0200	-16.0	50.0
2-Butanone (MEK)	Ave	0.1151	0.1249	0.0100	0.0434	0.0400	8.5	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3383	0.1000	0.0186	0.0200	-7.2	20.0
2,2-Dichloropropane	Ave	0.1941	0.1566		0.0161	0.0200	-19.3	20.0
Chlorobromomethane	Ave	0.2064	0.1955		0.0189	0.0200	-5.3	20.0
Tetrahydrofuran	Ave	0.0782	0.0739		0.0378	0.0400	-5.5	20.0
Chloroform	Ave	0.4131	0.4026	0.2000	0.0195	0.0200	-2.5	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2661	0.1000	0.0179	0.0200	-10.7	20.0
Cyclohexane	Ave	0.2819	0.2578	0.1000	0.0183	0.0200	-8.6	20.0
1,1-Dichloropropene	Ave	0.3510	0.3096		0.0176	0.0200	-11.8	20.0
Carbon tetrachloride	Ave	0.2744	0.2350	0.1000	0.0171	0.0200	-14.4	20.0
Isobutyl alcohol	Ave	0.0085	0.0053		0.308	0.500	-38.3*	20.0
Benzene	Ave	1.041	0.9905	0.5000	0.0190	0.0200	-4.9	20.0
1,2-Dichloroethane	Ave	0.3781	0.3284	0.1000	0.0174	0.0200	-13.2	20.0
n-Heptane	Lin1		0.1251		0.0147	0.0200	-26.4*	20.0
Trichloroethene	Ave	0.2817	0.2580	0.1500	0.0183	0.0200	-8.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274539/3 Calibration Date: 04/13/2017 09:42

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963119.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2568	0.1000	0.0164	0.0200	-18.2	20.0
1,2-Dichloropropane	Ave	0.2387	0.2261	0.1000	0.0189	0.0200	-5.3	20.0
1,4-Dioxane	Ave	0.0030	0.0019		0.248	0.400	-37.9	50.0
Dibromomethane	Ave	0.1687	0.1712		0.0203	0.0200	1.4	20.0
Dichlorobromomethane	Ave	0.3121	0.2771	0.1500	0.0178	0.0200	-11.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1479		0.0350	0.0400	-12.5	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3499	0.1500	0.0195	0.0200	-2.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2219	0.0500	0.0374	0.0400	-6.5	20.0
Toluene	Ave	1.480	1.382	0.4000	0.0187	0.0200	-6.6	20.0
trans-1,3-Dichloropropene	Lin1		0.4165	0.1000	0.0170	0.0200	-14.8	20.0
Ethyl methacrylate	Ave	0.4079	0.3847		0.0189	0.0200	-5.7	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2854	0.1000	0.0190	0.0200	-5.0	20.0
1,3-Dichloropropane	Ave	0.5821	0.5042		0.0173	0.0200	-13.4	20.0
Tetrachloroethene	Ave	0.3436	0.3370	0.1500	0.0196	0.0200	-1.9	20.0
2-Hexanone	Ave	0.2026	0.2197	0.0500	0.0434	0.0400	8.4	20.0
Chlorodibromomethane	Lin1		0.2376		0.0163	0.0200	-18.6	20.0
Ethylene Dibromide	Ave	0.3086	0.2842		0.0184	0.0200	-7.9	20.0
Chlorobenzene	Ave	0.996	0.9149	0.3000	0.0184	0.0200	-8.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2886		0.0190	0.0200	-5.2	20.0
Ethylbenzene	Ave	0.5054	0.4827		0.0191	0.0200	-4.5	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.5913		0.0185	0.0200	-7.5	20.0
o-Xylene	Ave	0.6325	0.5821		0.0184	0.0200	-8.0	20.0
Styrene	Ave	1.043	0.9928	0.3000	0.0190	0.0200	-4.8	20.0
Bromoform	Lin1		0.1420	0.1000	0.0176	0.0200	-12.2	20.0
Isopropylbenzene	Ave	1.482	1.377	0.1000	0.0186	0.0200	-7.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7399	0.3000	0.0196	0.0200	-1.8	20.0
Bromobenzene	Ave	0.7530	0.7374		0.0196	0.0200	-2.1	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2734		0.0194	0.0200	-2.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1135		0.0209	0.0200	4.4	20.0
N-Propylbenzene	Ave	0.7275	0.6908		0.0190	0.0200	-5.1	20.0
2-Chlorotoluene	Ave	0.7100	0.6357		0.0179	0.0200	-10.5	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.046		0.0184	0.0200	-7.9	20.0
4-Chlorotoluene	Ave	0.7119	0.6798		0.0191	0.0200	-4.5	20.0
tert-Butylbenzene	Ave	2.002	1.920		0.0192	0.0200	-4.1	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.178		0.0186	0.0200	-6.9	20.0
sec-Butylbenzene	Ave	0.5471	0.5076		0.0186	0.0200	-7.2	20.0
1,3-Dichlorobenzene	Ave	1.429	1.337	0.6000	0.0187	0.0200	-6.4	20.0
4-Isopropyltoluene	Ave	2.234	2.010		0.0180	0.0200	-10.0	20.0
1,4-Dichlorobenzene	Ave	1.488	1.393	0.5000	0.0187	0.0200	-6.4	20.0
n-Butylbenzene	Ave	1.947	1.636		0.0168	0.0200	-16.0	20.0
1,2-Dichlorobenzene	Ave	1.428	1.254	0.4000	0.0176	0.0200	-12.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274539/3 Calibration Date: 04/13/2017 09:42

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963119.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1258	0.0500	0.0153	0.0200	-23.3	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.5838	0.2000	0.0140	0.0200	-30.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2310		0.0139	0.0200	-30.5*	20.0
Naphthalene	Ave	2.550	1.732		0.0136	0.0200	-32.1	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.4972		0.0120	0.0200	-40.1*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2173		0.0198	0.0200	-1.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2646		0.0181	0.0200	-9.4	20.0
Toluene-d8 (Surr)	Ave	1.264	1.228		0.0194	0.0200	-2.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4410		0.0192	0.0200	-3.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274715/3 Calibration Date: 04/14/2017 08:35

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963158.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.3202	0.1000	0.0216	0.0200	8.2	20.0
Chloromethane	Ave	0.3526	0.3417	0.1000	0.0194	0.0200	-3.1	20.0
Vinyl chloride	Ave	0.3415	0.3408	0.1000	0.0200	0.0200	-0.2	20.0
Butadiene	Ave	0.2909	0.2588		0.0178	0.0200	-11.0	20.0
Bromomethane	Ave	0.2150	0.2024	0.0500	0.0188	0.0200	-5.9	20.0
Chloroethane	Ave	0.2199	0.2275	0.0500	0.0207	0.0200	3.4	20.0
Dichlorofluoromethane	Ave	0.5069	0.5015		0.0198	0.0200	-1.1	20.0
Trichlorofluoromethane	Ave	0.4172	0.3972	0.1000	0.0190	0.0200	-4.8	20.0
Ethyl ether	Ave	0.2286	0.1999		0.0175	0.0200	-12.6	20.0
Acrolein	Ave	0.0341	0.0382		0.112	0.100	11.9	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2049	0.0500	0.0160	0.0200	-19.8	20.0
1,1-Dichloroethene	Ave	0.4790	0.4423	0.1000	0.0185	0.0200	-7.7	20.0
Acetone	Lin1		0.1034	0.0100	0.0391	0.0400	-2.3	50.0
Iodomethane	Ave	0.4353	0.3823		0.0176	0.0200	-12.2	20.0
Carbon disulfide	Ave	0.8373	0.5637	0.1000	0.0135	0.0200	-32.7*	20.0
3-Chloro-1-propene	Ave	0.3607	0.2832		0.0157	0.0200	-21.5*	20.0
Methyl acetate	Ave	0.2190	0.1914	0.1000	0.0874	0.100	-12.6	20.0
Methylene Chloride	Ave	0.3828	0.3648	0.1000	0.0191	0.0200	-4.7	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0259		0.198	0.200	-1.2	50.0
Acrylonitrile	Ave	0.0984	0.1041		0.211	0.200	5.7	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7221	0.1000	0.0175	0.0200	-12.5	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3395	0.1000	0.0195	0.0200	-2.3	20.0
Hexane	Ave	0.2621	0.2087		0.0159	0.0200	-20.4*	20.0
1,1-Dichloroethane	Ave	0.4365	0.3896	0.2000	0.0179	0.0200	-10.7	20.0
Vinyl acetate	Ave	0.4147	0.3669		0.0177	0.0200	-11.5	50.0
2,2-Dichloropropane	Ave	0.1941	0.1561		0.0161	0.0200	-19.6	20.0
2-Butanone (MEK)	Ave	0.1151	0.1318	0.0100	0.0458	0.0400	14.5	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3419	0.1000	0.0188	0.0200	-6.2	20.0
Chlorobromomethane	Ave	0.2064	0.1963		0.0190	0.0200	-4.9	20.0
Tetrahydrofuran	Ave	0.0782	0.0747		0.0382	0.0400	-4.4	20.0
Chloroform	Ave	0.4131	0.4105	0.2000	0.0199	0.0200	-0.6	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2671	0.1000	0.0179	0.0200	-10.3	20.0
Cyclohexane	Ave	0.2819	0.2349	0.1000	0.0167	0.0200	-16.7	20.0
1,1-Dichloropropene	Ave	0.3510	0.3134		0.0179	0.0200	-10.7	20.0
Carbon tetrachloride	Ave	0.2744	0.2314	0.1000	0.0169	0.0200	-15.7	20.0
Isobutyl alcohol	Ave	0.0085	0.0073		0.431	0.500	-13.8	20.0
1,2-Dichloroethane	Ave	0.3781	0.3279	0.1000	0.0173	0.0200	-13.3	20.0
Benzene	Ave	1.041	1.000	0.5000	0.0192	0.0200	-4.0	20.0
n-Heptane	Lin1		0.1254		0.0147	0.0200	-26.3*	20.0
Trichloroethene	Ave	0.2817	0.2578	0.1500	0.0183	0.0200	-8.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274715/3 Calibration Date: 04/14/2017 08:35

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963158.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2527	0.1000	0.0161	0.0200	-19.5	20.0
1,2-Dichloropropane	Ave	0.2387	0.2266	0.1000	0.0190	0.0200	-5.1	20.0
1,4-Dioxane	Ave	0.0030	0.0022		0.299	0.400	-25.2	50.0
Dibromomethane	Ave	0.1687	0.1797		0.0213	0.0200	6.5	20.0
Dichlorobromomethane	Ave	0.3121	0.2830	0.1500	0.0181	0.0200	-9.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1472		0.0348	0.0400	-12.9	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3550	0.1500	0.0198	0.0200	-1.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2284	0.0500	0.0385	0.0400	-3.7	20.0
Toluene	Ave	1.480	1.392	0.4000	0.0188	0.0200	-6.0	20.0
trans-1,3-Dichloropropene	Lin1		0.4187	0.1000	0.0171	0.0200	-14.3	20.0
Ethyl methacrylate	Ave	0.4079	0.3835		0.0188	0.0200	-6.0	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.2866	0.1000	0.0191	0.0200	-4.6	20.0
1,3-Dichloropropane	Ave	0.5821	0.5223		0.0179	0.0200	-10.3	20.0
Tetrachloroethene	Ave	0.3436	0.3336	0.1500	0.0194	0.0200	-2.9	20.0
2-Hexanone	Ave	0.2026	0.2227	0.0500	0.0440	0.0400	9.9	20.0
Chlorodibromomethane	Lin1		0.2550		0.0174	0.0200	-12.8	20.0
Ethylene Dibromide	Ave	0.3086	0.2944		0.0191	0.0200	-4.6	20.0
Chlorobenzene	Ave	0.996	0.9190	0.3000	0.0184	0.0200	-7.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2868		0.0188	0.0200	-5.8	20.0
Ethylbenzene	Ave	0.5054	0.4714		0.0187	0.0200	-6.7	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.5905		0.0185	0.0200	-7.7	20.0
o-Xylene	Ave	0.6325	0.5817		0.0184	0.0200	-8.0	20.0
Styrene	Ave	1.043	1.005	0.3000	0.0193	0.0200	-3.7	20.0
Bromoform	Lin1		0.1521	0.1000	0.0187	0.0200	-6.3	20.0
Isopropylbenzene	Ave	1.482	1.422	0.1000	0.0192	0.0200	-4.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7439	0.3000	0.0197	0.0200	-1.3	20.0
Bromobenzene	Ave	0.7530	0.7102		0.0189	0.0200	-5.7	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2681		0.0190	0.0200	-4.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1638		0.0301	0.0200	50.6*	20.0
N-Propylbenzene	Ave	0.7275	0.6914		0.0190	0.0200	-5.0	20.0
2-Chlorotoluene	Ave	0.7100	0.6160		0.0174	0.0200	-13.2	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.024		0.0182	0.0200	-8.9	20.0
4-Chlorotoluene	Ave	0.7119	0.6619		0.0186	0.0200	-7.0	20.0
tert-Butylbenzene	Ave	2.002	1.765		0.0176	0.0200	-11.8	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.111		0.0180	0.0200	-9.8	20.0
sec-Butylbenzene	Ave	0.5471	0.4890		0.0179	0.0200	-10.6	20.0
1,3-Dichlorobenzene	Ave	1.429	1.336	0.6000	0.0187	0.0200	-6.5	20.0
4-Isopropyltoluene	Ave	2.234	2.061		0.0185	0.0200	-7.7	20.0
1,4-Dichlorobenzene	Ave	1.488	1.371	0.5000	0.0184	0.0200	-7.9	20.0
n-Butylbenzene	Ave	1.947	1.638		0.0168	0.0200	-15.9	20.0
1,2-Dichlorobenzene	Ave	1.428	1.309	0.4000	0.0183	0.0200	-8.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274715/3 Calibration Date: 04/14/2017 08:35

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963158.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1420	0.0500	0.0172	0.0200	-13.9	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.6827	0.2000	0.0164	0.0200	-18.1	50.0
Hexachlorobutadiene	Ave	0.3322	0.2611		0.0157	0.0200	-21.4*	20.0
Naphthalene	Ave	2.550	2.032		0.0159	0.0200	-20.3	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.6001		0.0145	0.0200	-27.7*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2214		0.0202	0.0200	0.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2636		0.0180	0.0200	-9.8	20.0
Toluene-d8 (Surr)	Ave	1.264	1.228		0.0194	0.0200	-2.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4568		0.0199	0.0200	-0.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274915/3 Calibration Date: 04/17/2017 09:26

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963183.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2960	0.2582	0.1000	0.0174	0.0200	-12.8	20.0
Chloromethane	Ave	0.3526	0.3480	0.1000	0.0197	0.0200	-1.3	20.0
Vinyl chloride	Ave	0.3415	0.3277	0.1000	0.0192	0.0200	-4.0	20.0
Butadiene	Ave	0.2909	0.2255		0.0155	0.0200	-22.5*	20.0
Bromomethane	Ave	0.2150	0.2025	0.0500	0.0188	0.0200	-5.8	20.0
Chloroethane	Ave	0.2199	0.2136	0.0500	0.0194	0.0200	-2.9	20.0
Dichlorofluoromethane	Ave	0.5069	0.5070		0.0200	0.0200	0.0	20.0
Trichlorofluoromethane	Ave	0.4172	0.3469	0.1000	0.0166	0.0200	-16.8	20.0
Ethyl ether	Ave	0.2286	0.2151		0.0188	0.0200	-5.9	20.0
Acrolein	Ave	0.0341	0.0395		0.116	0.100	15.8	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2555	0.2000	0.0500	0.0157	0.0200	-21.7*	20.0
1,1-Dichloroethene	Ave	0.4790	0.4523	0.1000	0.0189	0.0200	-5.6	20.0
Acetone	Lin1		0.1031	0.0100	0.0389	0.0400	-2.6	50.0
Iodomethane	Ave	0.4353	0.3991		0.0183	0.0200	-8.3	20.0
Carbon disulfide	Ave	0.8373	0.6273	0.1000	0.0150	0.0200	-25.1*	20.0
3-Chloro-1-propene	Ave	0.3607	0.3088		0.0171	0.0200	-14.4	20.0
Methyl acetate	Ave	0.2190	0.2000	0.1000	0.0913	0.100	-8.7	20.0
Methylene Chloride	Ave	0.3828	0.3685	0.1000	0.0192	0.0200	-3.8	50.0
2-Methyl-2-propanol	Ave	0.0262	0.0252		0.192	0.200	-4.0	50.0
Acrylonitrile	Ave	0.0984	0.1095		0.222	0.200	11.2	20.0
Methyl tert-butyl ether	Ave	0.8254	0.7543	0.1000	0.0183	0.0200	-8.6	20.0
trans-1,2-Dichloroethene	Ave	0.3477	0.3429	0.1000	0.0197	0.0200	-1.4	20.0
Hexane	Ave	0.2621	0.2035		0.0155	0.0200	-22.4*	20.0
1,1-Dichloroethane	Ave	0.4365	0.4061	0.2000	0.0186	0.0200	-7.0	20.0
Vinyl acetate	Ave	0.4147	0.3697		0.0178	0.0200	-10.8	50.0
2-Butanone (MEK)	Ave	0.1151	0.1292	0.0100	0.0449	0.0400	12.3	20.0
cis-1,2-Dichloroethene	Ave	0.3646	0.3530	0.1000	0.0194	0.0200	-3.2	20.0
2,2-Dichloropropane	Ave	0.1941	0.1551		0.0160	0.0200	-20.1*	20.0
Chlorobromomethane	Ave	0.2064	0.2037		0.0197	0.0200	-1.3	20.0
Tetrahydrofuran	Ave	0.0782	0.0778		0.0398	0.0400	-0.5	20.0
Chloroform	Ave	0.4131	0.4255	0.2000	0.0206	0.0200	3.0	20.0
1,1,1-Trichloroethane	Ave	0.2978	0.2629	0.1000	0.0177	0.0200	-11.7	20.0
Cyclohexane	Ave	0.2819	0.2436	0.1000	0.0173	0.0200	-13.6	20.0
1,1-Dichloropropene	Ave	0.3510	0.3105		0.0177	0.0200	-11.5	20.0
Carbon tetrachloride	Ave	0.2744	0.2219	0.1000	0.0162	0.0200	-19.2	20.0
Isobutyl alcohol	Ave	0.0085	0.0051		0.299	0.500	-40.2*	20.0
1,2-Dichloroethane	Ave	0.3781	0.3318	0.1000	0.0176	0.0200	-12.2	20.0
Benzene	Ave	1.041	0.997	0.5000	0.0192	0.0200	-4.2	20.0
n-Heptane	Lin1		0.1261		0.0148	0.0200	-25.8*	20.0
Trichloroethene	Ave	0.2817	0.2601	0.1500	0.0185	0.0200	-7.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274915/3 Calibration Date: 04/17/2017 09:26

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963183.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3138	0.2525	0.1000	0.0161	0.0200	-19.5	20.0
1,2-Dichloropropane	Ave	0.2387	0.2249	0.1000	0.0188	0.0200	-5.8	20.0
1,4-Dioxane	Ave	0.0030	0.0025		0.334	0.400	-16.5	50.0
Dibromomethane	Ave	0.1687	0.1764		0.0209	0.0200	4.5	20.0
Dichlorobromomethane	Ave	0.3121	0.2809	0.1500	0.0180	0.0200	-10.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1691	0.1562		0.0370	0.0400	-7.6	20.0
cis-1,3-Dichloropropene	Ave	0.3593	0.3640	0.1500	0.0203	0.0200	1.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2373	0.2336	0.0500	0.0394	0.0400	-1.6	20.0
Toluene	Ave	1.480	1.425	0.4000	0.0193	0.0200	-3.7	20.0
trans-1,3-Dichloropropene	Lin1		0.4353	0.1000	0.0178	0.0200	-11.0	20.0
Ethyl methacrylate	Ave	0.4079	0.3804		0.0186	0.0200	-6.8	20.0
1,1,2-Trichloroethane	Ave	0.3004	0.3070	0.1000	0.0204	0.0200	2.2	20.0
1,3-Dichloropropane	Ave	0.5821	0.5409		0.0186	0.0200	-7.1	20.0
Tetrachloroethene	Ave	0.3436	0.3425	0.1500	0.0199	0.0200	-0.3	20.0
2-Hexanone	Ave	0.2026	0.2192	0.0500	0.0433	0.0400	8.2	20.0
Chlorodibromomethane	Lin1		0.2536		0.0173	0.0200	-13.3	20.0
Ethylene Dibromide	Ave	0.3086	0.2986		0.0194	0.0200	-3.2	20.0
Chlorobenzene	Ave	0.996	0.9366	0.3000	0.0188	0.0200	-6.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3045	0.2779		0.0183	0.0200	-8.7	20.0
Ethylbenzene	Ave	0.5054	0.4820		0.0191	0.0200	-4.6	20.0
m-Xylene & p-Xylene	Ave	0.6394	0.6173		0.0193	0.0200	-3.5	20.0
o-Xylene	Ave	0.6325	0.5848		0.0185	0.0200	-7.5	20.0
Styrene	Ave	1.043	1.048	0.3000	0.0201	0.0200	0.5	20.0
Bromoform	Lin1		0.1606	0.1000	0.0198	0.0200	-1.2	20.0
Isopropylbenzene	Ave	1.482	1.424	0.1000	0.0192	0.0200	-3.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7536	0.7617	0.3000	0.0202	0.0200	1.1	20.0
Bromobenzene	Ave	0.7530	0.7401		0.0197	0.0200	-1.7	20.0
1,2,3-Trichloropropane	Ave	0.2816	0.2771		0.0197	0.0200	-1.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1087	0.1877		0.0345	0.0200	72.6*	20.0
N-Propylbenzene	Ave	0.7275	0.7004		0.0193	0.0200	-3.7	20.0
2-Chlorotoluene	Ave	0.7100	0.6566		0.0185	0.0200	-7.5	20.0
1,3,5-Trimethylbenzene	Ave	2.221	2.093		0.0188	0.0200	-5.8	20.0
4-Chlorotoluene	Ave	0.7119	0.6860		0.0193	0.0200	-3.6	20.0
tert-Butylbenzene	Ave	2.002	1.946		0.0194	0.0200	-2.8	20.0
1,2,4-Trimethylbenzene	Ave	2.340	2.231		0.0191	0.0200	-4.7	20.0
sec-Butylbenzene	Ave	0.5471	0.5106		0.0187	0.0200	-6.7	20.0
1,3-Dichlorobenzene	Ave	1.429	1.348	0.6000	0.0189	0.0200	-5.7	20.0
4-Isopropyltoluene	Ave	2.234	2.094		0.0187	0.0200	-6.3	20.0
1,4-Dichlorobenzene	Ave	1.488	1.434	0.5000	0.0193	0.0200	-3.7	20.0
n-Butylbenzene	Ave	1.947	1.682		0.0173	0.0200	-13.6	20.0
1,2-Dichlorobenzene	Ave	1.428	1.334	0.4000	0.0187	0.0200	-6.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 240-274915/3 Calibration Date: 04/17/2017 09:26

Instrument ID: A3UX9 Calib Start Date: 10/31/2016 13:31

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 10/31/2016 15:31

Lab File ID: UX963183.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Lin1		0.1458	0.0500	0.0177	0.0200	-11.7	50.0
1,2,4-Trichlorobenzene	Ave	0.8334	0.6665	0.2000	0.0160	0.0200	-20.0	50.0
Hexachlorobutadiene	Ave	0.3322	0.2505		0.0151	0.0200	-24.6*	20.0
Naphthalene	Ave	2.550	2.050		0.0161	0.0200	-19.6	50.0
1,2,3-Trichlorobenzene	Ave	0.8305	0.5893		0.0142	0.0200	-29.0*	20.0
Dibromofluoromethane (Surr)	Ave	0.2195	0.2186		0.0199	0.0200	-0.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2921	0.2694		0.0184	0.0200	-7.8	20.0
Toluene-d8 (Surr)	Ave	1.264	1.271		0.0201	0.0200	0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4591	0.4820		0.0210	0.0200	5.0	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274539/7

Matrix: Water | Lab File ID: UX963123.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 11:18

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274539 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274539/7

Matrix: Water | Lab File ID: UX963123.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/13/2017 11:18

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274539 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	1.79		1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-124
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274715/7

Matrix: Water | Lab File ID: UX963162.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 10:11

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274715/7

Matrix: Water | Lab File ID: UX963162.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 10:11

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.917	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-124
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
460-00-4	4-Bromofluorobenzene (Surr)	89		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274738/7

Matrix: Water | Lab File ID: UXM1718.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 13:36

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.41	U	1.0	0.41
79-00-5	1,1,2-Trichloroethane	0.34	U	1.0	0.34
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
106-93-4	Ethylene Dibromide	0.23	U	1.0	0.23
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.16	J	10	1.0
591-78-6	2-Hexanone	1.2	U	10	1.2
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	7.14	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
75-27-4	Dichlorobromomethane	0.30	U	1.0	0.30
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
110-82-7	Cyclohexane	0.44	U	1.0	0.44
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274738/7

Matrix: Water | Lab File ID: UXM1718.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/14/2017 13:36

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274738 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-124
1868-53-7	Dibromofluoromethane (Surr)	87		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-132

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274915/8

Matrix: Water | Lab File ID: UX963188.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 11:28

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274915 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-77949-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-274915/8

Matrix: Water | Lab File ID: UX963188.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/17/2017 11:28

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 274915 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-20-9	Methyl acetate	1.4	U	10	1.4
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
108-87-2	Methylcyclohexane	0.45	U	1.0	0.45
75-09-2	Methylene Chloride	0.693	J	1.0	0.53
100-42-5	Styrene	0.23	U	1.0	0.23
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5ms ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE #
MRC-SW1A-041017	240-77949-1	59
MRC-SW2A-041017	240-77949-2	57
MRC-SWDUP1-041017	240-77949-32	52
	MB 200-115993/1-A	66
	LCS 200-115993/2-A	67
MRC-SW1A-041017 MS	240-77949-1 MS	67
MRC-SW1A-041017 MSD	240-77949-1 MSD	58

	QC LIMITS
DXE = 1,4-Dioxane-d8 (Surr)	46-130

Column to be used to flag recovery values

FORM II 522

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24844_02.D

Lab ID: LCS 200-115993/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	1.43	71	70-130	

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24828_61.D

Lab ID: 240-77949-1 MS Client ID: MRC-SW1A-041017 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	2.00	0.096 J	1.48	69	70-130	F1

Column to be used to flag recovery and RPD values

FORM III 522

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z24828_63.D

Lab ID: 240-77949-1 MSD Client ID: MRC-SW1A-041017 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	2.00	1.37	64	8	30	70-130	F1

Column to be used to flag recovery and RPD values

FORM III 522

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Lab File ID: Z24828_59.D Lab Sample ID: MB 200-115993/1-A

Matrix: Water Date Extracted: 04/20/2017 19:30

Instrument ID: CHZ.i Date Analyzed: 04/22/2017 06:37

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
MRC-SW1A-041017	240-77949-1	Z24828_60.D	04/22/2017 06:53
MRC-SW1A-041017 MS	240-77949-1 MS	Z24828_61.D	04/22/2017 07:09
MRC-SW1A-041017 MSD	240-77949-1 MSD	Z24828_63.D	04/22/2017 07:41
MRC-SW2A-041017	240-77949-2	Z24828_64.D	04/22/2017 07:57
MRC-SWDUP1-041017	240-77949-32	Z24828_65.D	04/22/2017 08:13
	LCS 200-115993/2-A	Z24844_02.D	04/24/2017 10:21

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Lab File ID: Z24808_02.D BFB Injection Date: 04/20/2017

Instrument ID: CHZ.i BFB Injection Time: 16:38

Analysis Batch No.: 115982

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.8	
75	30.0 - 80.0 % of mass 95	54.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	>50.0 % of mass 95	67.2	
175	5.0 - 9.0 % of mass 174	5.1	(7.6) 1
176	>95.0 but <101.0 % of mass 174	65.5	(97.6) 1
177	5.0 - 9.0 % of mass 176	4.2	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-115982/11	Z24808_11.D	04/20/2017	17:05
	IC 200-115982/4	Z24808_04.D	04/20/2017	17:21
	IC 200-115982/5	Z24808_05.D	04/20/2017	17:36
	IC 200-115982/7	Z24808_07.D	04/20/2017	18:08
	IC 200-115982/8	Z24808_08.D	04/20/2017	18:25
	IC 200-115982/9	Z24808_09.D	04/20/2017	18:41
	ICV 200-115982/10	Z24808_10.D	04/20/2017	18:57
	CCV 200-116016/49	Z24828_49.D	04/22/2017	03:56
	MB 200-115993/1-A	Z24828_59.D	04/22/2017	06:37
MRC-SW1A-041017	240-77949-1	Z24828_60.D	04/22/2017	06:53
MRC-SW1A-041017 MS	240-77949-1 MS	Z24828_61.D	04/22/2017	07:09
	CCV 200-116016/62	Z24828_62.D	04/22/2017	07:25
MRC-SW1A-041017 MSD	240-77949-1 MSD	Z24828_63.D	04/22/2017	07:41
MRC-SW2A-041017	240-77949-2	Z24828_64.D	04/22/2017	07:57
MRC-SWDUP1-041017	240-77949-32	Z24828_65.D	04/22/2017	08:13
	CCV 200-116016/73	Z24828_73.D	04/22/2017	10:22
	CCVL 200-116045/1	Z24844_01.D	04/24/2017	10:06
	LCS 200-115993/2-A	Z24844_02.D	04/24/2017	10:21
	CCV 200-116045/13	Z24844_13.D	04/24/2017	13:17

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Lab File ID: BFB Injection Date:

Instrument ID: BFB Injection Time:

Lab File ID: DFTPP Injection Date:

Instrument ID: DFTPP Injection Time:

Analysis Batch No.:

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 200-115982/6	Z24808_06.D	04/20/2017	17:52

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Sample No.: ICIS 200-115982/6 Date Analyzed: 04/20/2017 17:52

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm)

Lab File ID (Standard): Z24808_06.D Heated Purge: (Y/N) N

Calibration ID: 37126

		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		184600	3.45				
UPPER LIMIT		276900	3.95				
LOWER LIMIT		92300	2.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-115982/10		164476	3.44				
CCV 200-116016/49		114821	3.44				
MB 200-115993/1-A		138201	3.49				
240-77949-1	MRC-SW1A-041017	141136	3.47				
240-77949-1 MS	MRC-SW1A-041017 MS	136298	3.46				
CCV 200-116016/62		125531	3.45				
240-77949-1 MSD	MRC-SW1A-041017 MSD	124287	3.45				
240-77949-2	MRC-SW2A-041017	123579	3.44				
240-77949-32	MRC-SWDUP1-041017	108947	3.42				
CCV 200-116016/73		115289	3.44				
CCVL 200-116045/1		104184	3.44				
LCS 200-115993/2-A		100855	3.44				
CCV 200-116045/13		105818	3.44				

= Tetrahydrofuran-d8

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 522

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 240-77949-1 Analy Batch No.: 115982

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2017 17:05 Calibration End Date: 04/20/2017 18:41 Calibration ID: 37126

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-115982/9	Z24808_09.D
Level 2	IC 200-115982/8	Z24808_08.D
Level 3	IC 200-115982/7	Z24808_07.D
Level 4	ICIS 200-115982/6	Z24808_06.D
Level 5	IC 200-115982/5	Z24808_05.D
Level 6	IC 200-115982/4	Z24808_04.D
Level 7	IC 200-115982/11	Z24808_11.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.9371 0.8322	0.9125 0.8513	0.8873	0.8494	0.8061	Ave		0.8680			0.0500	5.3		15.0			0.9900
1,4-Dioxane-d8 (Surr)	0.6043 0.6072	0.5956 0.6322	0.6217	0.6120	0.5970	Ave		0.6100				2.2		15.0			0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 240-77949-1 Analy Batch No.: 115982

SDG No.:

Instrument ID: CHZ.i GC Column: Rxi-5ms ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2017 17:05 Calibration End Date: 04/20/2017 18:41 Calibration ID: 37126

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-115982/9	Z24808_09.D
Level 2	IC 200-115982/8	Z24808_08.D
Level 3	IC 200-115982/7	Z24808_07.D
Level 4	ICIS 200-115982/6	Z24808_06.D
Level 5	IC 200-115982/5	Z24808_05.D
Level 6	IC 200-115982/4	Z24808_04.D
Level 7	IC 200-115982/11	Z24808_11.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane		Ave	3250 120608	6527 248676	15645	31361	59327	0.0100 0.400	0.0200 0.800	0.0500	0.100	0.200
1,4-Dioxane-d8 (Surr)		Ave	104786 110003	106504 115418	109626	112970	109839	0.500 0.500	0.500 0.500	0.500	0.500	0.500

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Lab Sample ID: ICV 200-115982/10 Calibration Date: 04/20/2017 18:57

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24808_10.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.7986	0.0500	184	200	-8.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCV 200-116016/49 Calibration Date: 04/22/2017 03:56

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24828_49.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8443	0.0500	778	800	-2.7	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.5782	0.0500	474	500	-5.2	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCV 200-116016/62 Calibration Date: 04/22/2017 07:25

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24828_62.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8679	0.0500	100	100	-0.0	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.6185	0.0500	507	500	1.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCV 200-116016/73 Calibration Date: 04/22/2017 10:22

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24828_73.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8190	0.0500	755	800	-5.6	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.5864	0.0500	481	500	-3.9	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVL 200-116045/1 Calibration Date: 04/24/2017 10:06

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24844_01.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.9368	0.0500	10.8	10.0	7.9	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.5978	0.0500	490	500	-2.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCV 200-116045/13 Calibration Date: 04/24/2017 13:17

Instrument ID: CHZ.i Calib Start Date: 04/20/2017 17:05

GC Column: Rxi-5ms ID: 0.25(mm) Calib End Date: 04/20/2017 18:41

Lab File ID: Z24844_13.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8680	0.8797	0.0500	101	100	1.3	30.0
1,4-Dioxane-d8 (Surr)	Ave	0.6100	0.5909	0.0500	484	500	-3.1	30.0

FORM II
PCBS SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	13CDCB #
MRC-SW5A1-041017	240-77949-3	76
MRC-SW5A2-041017	240-77949-4	80
MRC-SW5B-041017	240-77949-5	72
MRC-SW6A-041017	240-77949-6	77
MRC-SW6B-041017	240-77949-7	79
MRC-SW7A-041017	240-77949-8	84
MRC-SW7B-041017	240-77949-9	79
MRC-SW8A-041017	240-77949-10	78
MRC-SW8B-041017	240-77949-12	78
MRC-SW9A-041017	240-77949-13	77
MRC-SW9B-041017	240-77949-14	77
MRC-SWDUP2-041017	240-77949-33	80
	MB 680-476033/17-A	89
	LCS 680-476033/18-A	103
	680-137339-B-4-C MS	84
	680-137339-D-4-B MSD	79

	QC LIMITS
13CDCB = Decachlorobiphenyl-13C12	25-113

Column to be used to flag recovery values

FORM II 680

FORM III
PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xd1707.D

Lab ID: LCS 680-476033/18-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	6.00	5.84	97	62-130	
Hexachlorobiphenyl	4.00	3.74	93	62-130	
Nonachlorobiphenyl	10.0	18.4	184	70-195	
Octachlorobiphenyl	6.00	5.89	98	64-130	
Monochlorobiphenyl	2.00	1.62	81	42-130	
DCB Decachlorobiphenyl	10.0	10.5	105	59-130	
Dichlorobiphenyl	2.00	1.71	85	49-130	
Pentachlorobiphenyl	4.00	3.77	94	63-130	
Tetrachlorobiphenyl	4.00	3.63	91	54-130	
Trichlorobiphenyl	2.00	1.83	91	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xd1708.D

Lab ID: 680-137339-B-4-C MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Heptachlorobiphenyl	5.76	0.12 J	4.69	79	62-130	
Hexachlorobiphenyl	3.84	0.34	3.22	75	62-130	
Nonachlorobiphenyl	9.60	0.048 U	14.7	153	70-195	
Octachlorobiphenyl	5.76	0.037 U	4.89	85	64-130	
Monochlorobiphenyl	1.92	0.0055 U	1.24	65	42-130	
DCB Decachlorobiphenyl	9.60	0.068 U	7.82	81	59-130	
Dichlorobiphenyl	1.92	0.0061 J	1.31	68	49-130	
Pentachlorobiphenyl	3.84	2.5	5.38	75	63-130	
Tetrachlorobiphenyl	3.84	7.1	10.8	95	54-130	
Trichlorobiphenyl	1.92	0.65	1.87	64	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM III
PCBS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Matrix: Water Level: Low Lab File ID: xd1709.D

Lab ID: 680-137339-D-4-B MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Heptachlorobiphenyl	5.76	4.53	77	3	40	62-130	
Hexachlorobiphenyl	3.84	3.10	72	4	40	62-130	
Nonachlorobiphenyl	9.60	14.3	149	3	40	70-195	
Octachlorobiphenyl	5.76	4.65	81	5	40	64-130	
Monochlorobiphenyl	1.92	1.14	59	9	40	42-130	
DCB Decachlorobiphenyl	9.60	7.64	80	2	40	59-130	
Dichlorobiphenyl	1.92	1.28	67	2	40	49-130	
Pentachlorobiphenyl	3.84	5.60	81	4	40	63-130	
Tetrachlorobiphenyl	3.84	10.5	89	2	40	54-130	
Trichlorobiphenyl	1.92	1.85	62	1	40	51-130	

Column to be used to flag recovery and RPD values

FORM III 680

FORM IV
PCBS METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Lab File ID: xd1706.D Lab Sample ID: MB 680-476033/17-A

Matrix: Water Date Extracted: 04/14/2017 14:54

Instrument ID: CMSX Date Analyzed: 04/17/2017 17:42

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 680-476033/18-A	xd1707.D	04/17/2017 18:11
	680-137339-B-4-C MS	xd1708.D	04/17/2017 18:40
	680-137339-D-4-B MSD	xd1709.D	04/17/2017 19:08
MRC-SW5A1-041017	240-77949-3	xd1710.D	04/17/2017 19:37
MRC-SW5A2-041017	240-77949-4	xd1711.D	04/17/2017 20:06
MRC-SW5B-041017	240-77949-5	xd1712.D	04/17/2017 20:35
MRC-SW6A-041017	240-77949-6	xd1713.D	04/17/2017 21:04
MRC-SW6B-041017	240-77949-7	xd1714.D	04/17/2017 21:33
MRC-SW7A-041017	240-77949-8	xd1715.D	04/17/2017 22:02
MRC-SW7B-041017	240-77949-9	xd1716.D	04/17/2017 22:30
MRC-SW8A-041017	240-77949-10	xd1717.D	04/17/2017 22:59
MRC-SW8B-041017	240-77949-12	xd1718.D	04/17/2017 23:28
MRC-SW9A-041017	240-77949-13	xd1719.D	04/17/2017 23:57
MRC-SW9B-041017	240-77949-14	xd1720.D	04/18/2017 00:26
MRC-SWDUP2-041017	240-77949-33	xd1721.D	04/18/2017 00:55

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Lab File ID: xd1402.D DFTPP Injection Date: 04/14/2017

Instrument ID: CMSX DFTPP Injection Time: 08:39

Analysis Batch No.: 476005

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	55.0
197	Less than 1 % of mass 198	0.7
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.4
275	10 - 30% of mass 198	28.2
365	Greater than 1% of mass 198	5.1
441	Present but less than mass 443	6.4 (39.4) 2
442	Greater than 40% of mass 198	87.3
443	17 - 23% of mass 442	16.1 (18.5) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 680-476005/4	xd1405.D	04/14/2017	10:10
	IC 680-476005/5	xd1406.D	04/14/2017	10:39
	IC 680-476005/6	xd1407.D	04/14/2017	11:08
	IC 680-476005/7	xd1408.D	04/14/2017	11:36
	ICISAV 680-476005/23	xd1409.D	04/14/2017	12:05
	ICV 680-476005/8	xd1410.D	04/14/2017	12:34

FORM V
PCBS INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Lab File ID: xd1702.D DFTPP Injection Date: 04/17/2017

Instrument ID: CMSX DFTPP Injection Time: 15:23

Analysis Batch No.: 476284

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
127	40 - 60 % of mass 198	51.7
197	Less than 1 % of mass 198	0.0
198	Base peak, 100 % Relative abundance	100.0
199	5 - 9 % of mass 198	6.7
275	10 - 30% of mass 198	28.0
365	Greater than 1% of mass 198	5.6
441	Present but less than mass 443	18.8 (92.2) 2
442	Greater than 40% of mass 198	107.2
443	17 - 23% of mass 442	20.4 (19.0) 1

1-Value is % mass 442 2-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	WDM 680-476284/2	xd1703.D	04/17/2017	16:13
	CCVIS 680-476284/3	xd1704.D	04/17/2017	16:44
	MB 680-476033/17-A	xd1706.D	04/17/2017	17:42
	LCS 680-476033/18-A	xd1707.D	04/17/2017	18:11
	680-137339-B-4-C MS	xd1708.D	04/17/2017	18:40
	680-137339-D-4-B MSD	xd1709.D	04/17/2017	19:08
MRC-SW5A1-041017	240-77949-3	xd1710.D	04/17/2017	19:37
MRC-SW5A2-041017	240-77949-4	xd1711.D	04/17/2017	20:06
MRC-SW5B-041017	240-77949-5	xd1712.D	04/17/2017	20:35
MRC-SW6A-041017	240-77949-6	xd1713.D	04/17/2017	21:04
MRC-SW6B-041017	240-77949-7	xd1714.D	04/17/2017	21:33
MRC-SW7A-041017	240-77949-8	xd1715.D	04/17/2017	22:02
MRC-SW7B-041017	240-77949-9	xd1716.D	04/17/2017	22:30
MRC-SW8A-041017	240-77949-10	xd1717.D	04/17/2017	22:59
MRC-SW8B-041017	240-77949-12	xd1718.D	04/17/2017	23:28
MRC-SW9A-041017	240-77949-13	xd1719.D	04/17/2017	23:57
MRC-SW9B-041017	240-77949-14	xd1720.D	04/18/2017	00:26
MRC-SWDUP2-041017	240-77949-33	xd1721.D	04/18/2017	00:55
	CCV 680-476284/25	xd1726.D	04/18/2017	03:20

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Instrument ID: CMSX Calibration Start Date: 04/14/2017 10:10

GC Column: HP-5MS ID: 0.25(mm) Calibration End Date: 04/14/2017 12:05

Calibration ID: 51808

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		42791	10.02	47543	16.10		
UPPER LIMIT		64187	10.52	71315	16.60		
LOWER LIMIT		21396	9.52	23772	15.60		
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVIS 680-476284/3		40270	10.02	43259	16.11		
MB 680-476033/17-A		37502	10.02	41037	16.11		
LCS 680-476033/18-A		34258	10.02	36989	16.11		
680-137339-B-4-C MS		31442	10.02	35916	16.11		
680-137339-D-4-B MSD		33948	10.02	44005	16.11		
240-77949-3	MRC-SW5A1-041017	33959	10.02	42929	16.11		
240-77949-4	MRC-SW5A2-041017	37269	10.02	46448	16.10		
240-77949-5	MRC-SW5B-041017	38879	10.02	53189	16.11		
240-77949-6	MRC-SW6A-041017	40521	10.02	52448	16.11		
240-77949-7	MRC-SW6B-041017	36292	10.02	47992	16.11		
240-77949-8	MRC-SW7A-041017	36809	10.02	45242	16.11		
240-77949-9	MRC-SW7B-041017	38594	10.02	47279	16.11		
240-77949-10	MRC-SW8A-041017	39316	10.02	51333	16.11		
240-77949-12	MRC-SW8B-041017	41794	10.02	55693	16.11		
240-77949-13	MRC-SW9A-041017	40346	10.02	51814	16.11		
240-77949-14	MRC-SW9B-041017	42455	10.02	54931	16.11		
240-77949-33	MRC-SWDUP2-041017	43005	10.02	58180	16.11		
CCV 680-476284/25		39560	10.02	45539	16.11		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM VIII
PCBS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Sample No.: CCVIS 680-476284/3 Date Analyzed: 04/17/2017 16:44

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm)

Lab File ID (Standard): xd1704.D Heated Purge: (Y/N) N

Calibration ID: 51808

		PHN		CRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		40270	10.02	43259	16.11		
UPPER LIMIT		52351	10.52	56237	16.61		
LOWER LIMIT		28189	9.52	30281	15.61		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 680-476033/17-A		37502	10.02	41037	16.11		
LCS 680-476033/18-A		34258	10.02	36989	16.11		
680-137339-B-4-C MS		31442	10.02	35916	16.11		
680-137339-D-4-B MSD		33948	10.02	44005	16.11		
240-77949-3	MRC-SW5A1-041017	33959	10.02	42929	16.11		
240-77949-4	MRC-SW5A2-041017	37269	10.02	46448	16.10		
240-77949-5	MRC-SW5B-041017	38879	10.02	53189	16.11		
240-77949-6	MRC-SW6A-041017	40521	10.02	52448	16.11		
240-77949-7	MRC-SW6B-041017	36292	10.02	47992	16.11		
240-77949-8	MRC-SW7A-041017	36809	10.02	45242	16.11		
240-77949-9	MRC-SW7B-041017	38594	10.02	47279	16.11		
240-77949-10	MRC-SW8A-041017	39316	10.02	51333	16.11		
240-77949-12	MRC-SW8B-041017	41794	10.02	55693	16.11		
240-77949-13	MRC-SW9A-041017	40346	10.02	51814	16.11		
240-77949-14	MRC-SW9B-041017	42455	10.02	54931	16.11		
240-77949-33	MRC-SWDUP2-041017	43005	10.02	58180	16.11		
CCV 680-476284/25		39560	10.02	45539	16.11		

PHN = Phenanthrene-d10
CRY = Chrysene-d12

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 680

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: MRC-SW5A1-041017 | Lab Sample ID: 240-77949-3

Matrix: Water | Lab File ID: xd1710.D

Analysis Method: 680 | Date Collected: 04/10/2017 12:09

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1031.3(mL) | Date Analyzed: 04/17/2017 19:37

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.029	U	0.29	0.029
26601-64-9	Hexachlorobiphenyl	0.015	U	0.19	0.015
53742-07-7	Nonachlorobiphenyl	0.048	U	0.48	0.048
55722-26-4	Octachlorobiphenyl	0.037	U	0.29	0.037
27323-18-8	Monochlorobiphenyl	0.0054	U	0.097	0.0054
2051-24-3	DCB Decachlorobiphenyl	0.068	U	0.48	0.068
25512-42-9	Dichlorobiphenyl	0.0052	U	0.097	0.0052
25429-29-2	Pentachlorobiphenyl	0.014	U	0.19	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.19	0.013
25323-68-6	Trichlorobiphenyl	0.0063	U	0.097	0.0063

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	76		25-113

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-77949-1 Analy Batch No.: 476005

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/14/2017 10:10 Calibration End Date: 04/14/2017 12:05 Calibration ID: 51808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-476005/7	xd1408.D
Level 2	IC 680-476005/6	xd1407.D
Level 3	ICISAV 680-476005/23	xd1409.D
Level 4	IC 680-476005/5	xd1406.D
Level 5	IC 680-476005/4	xd1405.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochlorobiphenyl	0.7495	0.6443	0.6598	0.7450	0.7100	Ave		0.7017				6.9		20.0			
Dichlorobiphenyl	0.5516	0.4767	0.4878	0.5531	0.5443	Ave		0.5227				7.1		20.0			
Trichlorobiphenyl	0.3741	0.3519	0.3529	0.3890	0.3888	Ave		0.3713				4.9		20.0			
PCB-104			0.3265			Ave		0.3265						30.0			
Tetrachlorobiphenyl	0.2803	0.2586	0.2561	0.2834	0.2806	Ave		0.2718				4.9		20.0			
Pentachlorobiphenyl	0.2420	0.2193	0.2239	0.2414	0.2474	Ave		0.2348				5.3		20.0			
PCB-77			0.4094			Ave		0.4094						30.0			
Hexachlorobiphenyl	0.2535	0.2260	0.2333	0.2405	0.2456	Ave		0.2397				4.4		20.0			
Heptachlorobiphenyl	0.2188	0.1999	0.2010	0.2198	0.2170	Ave		0.2113				4.7		20.0			
Octachlorobiphenyl	0.2004	0.1857	0.1874	0.1948	0.2065	Ave		0.1950				4.5		20.0			
PCB-208			0.0788			Ave		0.0788						30.0			
Nonachlorobiphenyl			0.0630			Ave		0.0419				3.0		20.0			
DCB Decachlorobiphenyl	0.0427	0.0423	0.0434	0.0402	0.0411	Ave		0.0419				3.0		20.0			
gamma-BHC-13C6 (Surr)	0.1567	0.1496	0.1501	0.1704	0.1227	Ave		0.1499				11.6		50.0			
Decachlorobiphenyl-13C12	0.0504	0.0541	0.0567	0.0535	0.0544	Ave		0.0538				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
PCBS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Savannah Job No.: 240-77949-1 Analy Batch No.: 476005

SDG No.:

Instrument ID: CMSX GC Column: HP-5MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/14/2017 10:10 Calibration End Date: 04/14/2017 12:05 Calibration ID: 51808

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-476005/7	xd1408.D
Level 2	IC 680-476005/6	xd1407.D
Level 3	ICISAV 680-476005/23	xd1409.D
Level 4	IC 680-476005/5	xd1406.D
Level 5	IC 680-476005/4	xd1405.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Monochlorobiphenyl	CRY	Ave	5061	20652	41736	86467	227316	0.100	0.500	1.00	2.00	5.00
Dichlorobiphenyl	CRY	Ave	3725	15280	30853	64197	174280	0.100	0.500	1.00	2.00	5.00
Trichlorobiphenyl	CRY	Ave	2526	11279	22321	45153	124477	0.100	0.500	1.00	2.00	5.00
PCB-104	CRY	Ave			41309					2.00		
Tetrachlorobiphenyl	CRY	Ave	3786	16576	32401	65774	179717	0.200	1.00	2.00	4.00	10.0
Pentachlorobiphenyl	CRY	Ave	3268	14057	28321	56045	158454	0.200	1.00	2.00	4.00	10.0
PCB-77	CRY	Ave			51791					2.00		
Hexachlorobiphenyl	CRY	Ave	3423	14486	29511	55816	157270	0.200	1.00	2.00	4.00	10.0
Heptachlorobiphenyl	CRY	Ave	4432	19222	38150	76542	208403	0.300	1.50	3.00	6.00	15.0
Octachlorobiphenyl	CRY	Ave	4060	17860	35555	67834	198335	0.300	1.50	3.00	6.00	15.0
PCB-208	CRY	Ave			19928					4.00		
Nonachlorobiphenyl	CRY	Ave			19926					5.00		
DCB Decachlorobiphenyl	CRY	Ave	1441	6782	13716	23340	65861	0.500	2.50	5.00	10.0	25.0
gamma-BHC-13C6 (Surr)	CRY	Ave	2116	9589	18983	39545	78596	0.200	1.00	2.00	4.00	10.0
Decachlorobiphenyl-13C12	CRY	Ave	1703	8673	17937	31023	69720	0.500	2.50	5.00	10.0	20.0

Curve Type Legend:
Ave = Average ISTD

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Lab Sample ID: ICV 680-476005/8 Calibration Date: 04/14/2017 12:34

Instrument ID: CMSX Calib Start Date: 04/14/2017 10:10

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 04/14/2017 12:05

Lab File ID: xd1410.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7017	0.6294		0.897	1.00	-10.3	20.0
Dichlorobiphenyl	Ave	0.5227	0.4524		0.866	1.00	-13.4	20.0
Trichlorobiphenyl	Ave	0.3713	0.3752		1.01	1.00	1.0	20.0
Tetrachlorobiphenyl	Ave	0.2718	0.2626		1.93	2.00	-3.4	20.0
Pentachlorobiphenyl	Ave	0.2348	0.2231		1.90	2.00	-5.0	20.0
Hexachlorobiphenyl	Ave	0.2397	0.2234		1.86	2.00	-6.8	20.0
Heptachlorobiphenyl	Ave	0.2113	0.2055		2.92	3.00	-2.8	20.0
Octachlorobiphenyl	Ave	0.1950	0.1918		2.95	3.00	-1.6	20.0
Nonachlorobiphenyl	Ave	0.0630	0.0767		7.32	4.00	21.8*	20.0
DCB Decachlorobiphenyl	Ave	0.0419	0.0426		5.07	5.00	1.5	20.0
Decachlorobiphenyl-13C12	Ave	0.0538	0.0552		5.12	5.00	2.4	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCVIS 680-476284/3 Calibration Date: 04/17/2017 16:44

Instrument ID: CMSX Calib Start Date: 04/14/2017 10:10

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 04/14/2017 12:05

Lab File ID: xd1704.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7017	0.6720		0.958	1.00	-4.2	20.0
Dichlorobiphenyl	Ave	0.5227	0.4997		0.956	1.00	-4.4	20.0
Trichlorobiphenyl	Ave	0.3713	0.3755		1.01	1.00	1.1	20.0
Tetrachlorobiphenyl	Ave	0.2718	0.2731		2.01	2.00	0.5	20.0
Pentachlorobiphenyl	Ave	0.2348	0.2321		1.98	2.00	-1.1	20.0
Hexachlorobiphenyl	Ave	0.2397	0.2384		1.99	2.00	-0.6	20.0
Heptachlorobiphenyl	Ave	0.2113	0.2148		3.05	3.00	1.7	20.0
Octachlorobiphenyl	Ave	0.1950	0.1972		3.03	3.00	1.2	20.0
DCB Decachlorobiphenyl	Ave	0.0419	0.0440		5.24	5.00	4.8	20.0
Decachlorobiphenyl-13C12	Ave	0.0538	0.0531		4.93	5.00	-1.3	20.0

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Lab Sample ID: CCV 680-476284/25 Calibration Date: 04/18/2017 03:20

Instrument ID: CMSX Calib Start Date: 04/14/2017 10:10

GC Column: HP-5MS ID: 0.25(mm) Calib End Date: 04/14/2017 12:05

Lab File ID: xd1726.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochlorobiphenyl	Ave	0.7017	0.6132		0.874	1.00	-12.6	20.0
Dichlorobiphenyl	Ave	0.5227	0.4637		0.887	1.00	-11.3	20.0
Trichlorobiphenyl	Ave	0.3713	0.3444		0.928	1.00	-7.2	20.0
Tetrachlorobiphenyl	Ave	0.2718	0.2419		1.78	2.00	-11.0	20.0
Pentachlorobiphenyl	Ave	0.2348	0.2148		1.83	2.00	-8.5	20.0
Hexachlorobiphenyl	Ave	0.2397	0.2126		1.77	2.00	-11.3	20.0
Heptachlorobiphenyl	Ave	0.2113	0.1934		2.75	3.00	-8.5	20.0
Octachlorobiphenyl	Ave	0.1950	0.1835		2.82	3.00	-5.9	20.0
DCB Decachlorobiphenyl	Ave	0.0419	0.0411		4.89	5.00	-2.1	20.0
Decachlorobiphenyl-13C12	Ave	0.0538	0.0520		4.83	5.00	-3.3	20.0

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-77949-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-476033/17-A

Matrix: Water | Lab File ID: xd1706.D

Analysis Method: 680 | Date Collected:

Extract. Method: 680 | Date Extracted: 04/14/2017 14:54

Sample wt/vol: 1000(mL) | Date Analyzed: 04/17/2017 17:42

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

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

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

Analysis Batch No.: 476284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
28655-71-2	Heptachlorobiphenyl	0.030	U	0.30	0.030
26601-64-9	Hexachlorobiphenyl	0.015	U	0.20	0.015
53742-07-7	Nonachlorobiphenyl	0.049	U	0.50	0.049
55722-26-4	Octachlorobiphenyl	0.038	U	0.30	0.038
27323-18-8	Monochlorobiphenyl	0.0056	U	0.10	0.0056
2051-24-3	DCB Decachlorobiphenyl	0.070	U	0.50	0.070
25512-42-9	Dichlorobiphenyl	0.0054	U	0.10	0.0054
25429-29-2	Pentachlorobiphenyl	0.014	U	0.20	0.014
26914-33-0	Tetrachlorobiphenyl	0.013	U	0.20	0.013
25323-68-6	Trichlorobiphenyl	0.0065	U	0.10	0.0065

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00281	Decachlorobiphenyl-13C12	89		25-113

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Instrument ID: CMSX Start Date: 04/17/2017 15:23

Analysis Batch Number: 476284 End Date: 04/18/2017 03:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 680-476284/1		04/17/2017 15:23	1	xd1702.D	HP-5MS 0.25(mm)
WDM 680-476284/2		04/17/2017 16:13	1	xd1703.D	HP-5MS 0.25(mm)
CCVIS 680-476284/3		04/17/2017 16:44	1	xd1704.D	HP-5MS 0.25(mm)
MB 680-476033/17-A		04/17/2017 17:42	1	xd1706.D	HP-5MS 0.25(mm)
LCS 680-476033/18-A		04/17/2017 18:11	1	xd1707.D	HP-5MS 0.25(mm)
680-137339-B-4-C MS		04/17/2017 18:40	1	xd1708.D	HP-5MS 0.25(mm)
680-137339-D-4-B MSD		04/17/2017 19:08	1	xd1709.D	HP-5MS 0.25(mm)
240-77949-3		04/17/2017 19:37	1	xd1710.D	HP-5MS 0.25(mm)
240-77949-4		04/17/2017 20:06	1	xd1711.D	HP-5MS 0.25(mm)
240-77949-5		04/17/2017 20:35	1	xd1712.D	HP-5MS 0.25(mm)
240-77949-6		04/17/2017 21:04	1	xd1713.D	HP-5MS 0.25(mm)
240-77949-7		04/17/2017 21:33	1	xd1714.D	HP-5MS 0.25(mm)
240-77949-8		04/17/2017 22:02	1	xd1715.D	HP-5MS 0.25(mm)
240-77949-9		04/17/2017 22:30	1	xd1716.D	HP-5MS 0.25(mm)
240-77949-10		04/17/2017 22:59	1	xd1717.D	HP-5MS 0.25(mm)
240-77949-12		04/17/2017 23:28	1	xd1718.D	HP-5MS 0.25(mm)
240-77949-13		04/17/2017 23:57	1	xd1719.D	HP-5MS 0.25(mm)
240-77949-14		04/18/2017 00:26	1	xd1720.D	HP-5MS 0.25(mm)
240-77949-33		04/18/2017 00:55	1	xd1721.D	HP-5MS 0.25(mm)
ZZZZZ		04/18/2017 01:24	1		HP-5MS 0.25(mm)
ZZZZZ		04/18/2017 01:53	1		HP-5MS 0.25(mm)
ZZZZZ		04/18/2017 02:22	1		HP-5MS 0.25(mm)
ZZZZZ		04/18/2017 02:51	1		HP-5MS 0.25(mm)
CCV 680-476284/25		04/18/2017 03:20	1	xd1726.D	HP-5MS 0.25(mm)

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Batch Number: 476033 Batch Start Date: 04/14/17 14:54 Batch Analyst: Wilson, Charles E

Batch Method: 680 Batch End Date: 04/15/17 09:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH
240-77949-E-3	MRC-SW5A1-041017	680, 680	T	7 SU	1530.9 g	499.6 g	1031.3 mL	1 mL	7 SU
240-77949-E-4	MRC-SW5A2-041017	680, 680	T	7 SU	1523.2 g	502.2 g	1021 mL	1 mL	7 SU
240-77949-E-5	MRC-SW5B-041017	680, 680	T	7 SU	1363.9 g	390.1 g	973.8 mL	1 mL	7 SU
240-77949-E-6	MRC-SW6A-041017	680, 680	T	7 SU	1552.5 g	509.1 g	1043.4 mL	1 mL	7 SU
240-77949-E-7	MRC-SW6B-041017	680, 680	T	7 SU	1546.9 g	502.3 g	1044.6 mL	1 mL	7 SU
240-77949-D-8	MRC-SW7A-041017	680, 680	T	7 SU	1542.7 g	502.5 g	1040.2 mL	1 mL	7 SU
240-77949-E-9	MRC-SW7B-041017	680, 680	T	7 SU	1541.3 g	499.1 g	1042.2 mL	1 mL	7 SU
240-77949-E-10	MRC-SW8A-041017	680, 680	T	7 SU	1529.7 g	500.7 g	1029 mL	1 mL	7 SU
240-77949-E-12	MRC-SW8B-041017	680, 680	T	7 SU	1552.7 g	506.7 g	1046 mL	1 mL	7 SU
240-77949-E-13	MRC-SW9A-041017	680, 680	T	7 SU	1544.6 g	498.3 g	1046.3 mL	1 mL	7 SU
240-77949-E-14	MRC-SW9B-041017	680, 680	T	7 SU	1547.6 g	501.0 g	1046.6 mL	1 mL	7 SU
240-77949-D-33	MRC-SWDUP2-041017	680, 680	T	7 SU	1544.2 g	505.1 g	1039.1 mL	1 mL	7 SU
MB 680-476033/17		680, 680		7 SU			1000 mL	1 mL	7 SU
LCS 680-476033/18		680, 680		7 SU			1000 mL	1 mL	7 SU
680-137339-B-4 MS		680, 680	T	6 SU	1550.7 g	509.3 g	1041.4 mL	1 mL	6 SU
680-137339-D-4 MSD		680, 680	T	6 SU	1552.9 g	510.7 g	1042.2 mL	1 mL	6 SU

Lab Sample ID	Client Sample ID	Method Chain	Basis	ResidualChloCheck	680wkSPIKE 00108	680wkSURR-NEW 00017	680wkSURR-NEW 00018		
240-77949-E-3	MRC-SW5A1-041017	680, 680	T	N		1 mL			
240-77949-E-4	MRC-SW5A2-041017	680, 680	T	N		1 mL			
240-77949-E-5	MRC-SW5B-041017	680, 680	T	N		1 mL			
240-77949-E-6	MRC-SW6A-041017	680, 680	T	N		1 mL			
240-77949-E-7	MRC-SW6B-041017	680, 680	T	N		1 mL			
240-77949-D-8	MRC-SW7A-041017	680, 680	T	N		1 mL			
240-77949-E-9	MRC-SW7B-041017	680, 680	T	N		1 mL			
240-77949-E-10	MRC-SW8A-041017	680, 680	T	N		1 mL			
240-77949-E-12	MRC-SW8B-041017	680, 680	T	N		1 mL			
240-77949-E-13	MRC-SW9A-041017	680, 680	T	N		1 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Batch Number: 476033 Batch Start Date: 04/14/17 14:54 Batch Analyst: Wilson, Charles E

Batch Method: 680 Batch End Date: 04/15/17 09:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	ResidualChloCheck	680wkSPIKE 00108	680wkSURR-NEW 00017	680wkSURR-NEW 00018		
240-77949-E-14	MRC-SW9B-041017	680, 680	T	N		1 mL			
240-77949-D-33	MRC-SWDUP2-041017	680, 680	T	N		1 mL			
MB 680-476033/17		680, 680		N			1 mL		
LCS 680-476033/18		680, 680		N	1 mL		1 mL		
680-137339-B-4 MS		680, 680	T	N	1 mL		1 mL		
680-137339-D-4 MSD		680, 680	T	N	1 mL		1 mL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

PCBS BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-77949-1

SDG No.:

Batch Number: 476033 Batch Start Date: 04/14/17 14:54 Batch Analyst: Wilson, Charles E

Batch Method: 680 Batch End Date: 04/15/17 09:00

Batch Notes	
Balance ID	23
Batch Comment	680 box M680-102
Concentration End Time	1415
Concentration Start Time	1316
Analyst ID - Concentration	RKL
Exchange Solvent ID	5004301
Exchange Solvent Name	Hexanes
Exchange Solvent Volume Used	1 mL
Extraction 1 End Time	0900
Extraction 1 Start Time	1454
pH Paper ID	4785212 4961266 4923424
Pipette ID	AA02G
Prep Solvent ID	5016045
Prep Solvent Name	MeCL2
Prep Solvent Volume Used	70 mL
Person's name who did the prep	CEW
Analyst ID - Reagent Drop Witness	CEW/JC
Residual Chlorine Indicator ID	4852916
Analyst ID - Spike Analyst	CEW
Analyst ID - Spike Witness Analyst	JC
Sufficient volume for MS/MSD?	Yes
Vial ID	84873

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

APPENDIX C—CHEMICAL-RESULTS DATA TABLES

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW12B-D MRC-SW12B-D-041017 20170410 NORMAL	MRC-SW12B-S MRC-SW12B-S-041017 20170410 NORMAL	MRC-SW12C-D MRC-SW12C-D-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	NA	0.77 J	0.37 J	--
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	NA	NA	NA

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW12C-S MRC-SW12C-S-041017 20170410 NORMAL	MRC-SW13A-D MRC-SW13A-D-041017 20170410 NORMAL	MRC-SW13A-S MRC-SW13A-S-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	NA	0.36 J	1.4	0.36 J
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	NA	NA	NA

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW13B-D MRC-SW13B-D-041017 20170410 NORMAL	MRC-SW13B-S MRC-SW13B-S-041017 20170410 NORMAL	MRC-SW14A-D MRC-SW14A-D-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	NA	0.69 J	--	0.86 J
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	NA	NA	NA

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW14A-S MRC-SW14A-S-041017 20170410 NORMAL	MRC-SW14B-D MRC-SW14B-D-041017 20170410 NORMAL	MRC-SW14B-S MRC-SW14B-S-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	0.43 J	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	NA	0.39 J	--	--
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	NA	NA	NA

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW15A-D MRC-SW15A-D-041017 20170410 NORMAL	MRC-SW15A-S MRC-SW15A-S-041017 20170410 NORMAL	MRC-SW16A-D MRC-SW16A-D-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	NA	1.2	3.1	2.4
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	NA	NA	NA

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW16A-S MRC-SW16A-S-041017 20170410 NORMAL	MRC-SW1A MRC-SW1A-041017 20170410 ORIG	MRC-SW1A-041017-AVG 20170410 AVG
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	NA	0.82 J	--	--
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	NA	0.096 J	0.098

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW1A-041017-D 20170410 DUP	MRC-SW2A MRC-SW2A-041017 20170410 NORMAL	MRC-SW5A1 MRC-SW5A1-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	NA	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	NA	--	0.28 J
TRICHLOROETHENE	NA	NA	21	300	30	NA	NA	--	0.45 J
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	0.1 J	0.097 J	NA

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW5A2 MRC-SW5A2-041017 20170410 NORMAL	MRC-SW5B MRC-SW5B-041017 20170410 NORMAL	MRC-SW6A MRC-SW6A-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	--	0.35 J	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	NA	0.6 J	0.35 J	0.93 J
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	NA	NA	NA

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW6B MRC-SW6B-041017 20170410 NORMAL	MRC-SW7A MRC-SW7A-041017 20170410 ORIG	MRC-SW7A-041017-AVG 20170410 AVG
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	NA	0.94 J	0.48 J	0.475
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	NA	NA	NA

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW7A-041017-D 20170410 DUP	MRC-SW7B MRC-SW7B-041017 20170410 NORMAL	MRC-SW8A MRC-SW8A-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	NA	0.47 J	0.56 J	0.78 J
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	NA	NA	NA

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW8A1 MRC-SW8A1-041117 20170411 NORMAL	MRC-SW8A2 MRC-SW8A2-041117 20170411 NORMAL	MRC-SW8B MRC-SW8B-041017 20170410 NORMAL
	Acute	Chronic							
VOLATILES (UG/L)									
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	--	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	--	--	--
TRICHLOROETHENE	NA	NA	21	300	30	NA	3.2	3.8	0.61 J
SEMIVOLATILES (UG/L)									
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	NA	NA	NA

Appendix C
Cow Pen Creek/Dark Head Cove Surface Waters
April 2017
Positive Detections

LOCATION SAMPLE ID SAMPLE DATE SAMPLE CODE	National Recommended Water Quality Criteria[1] Freshwater		Ecological Surface Water Screening Level[2]	Human Health Consumption of Organism Only[1][3]	Swimming Screening Levels[4]	Massachusetts Drinking Water Guideline	MRC-SW9A MRC-SW9A-041017 20170410 NORMAL	MRC-SW9B MRC-SW9B-041017 20170410 NORMAL
	Acute	Chronic						
VOLATILES (UG/L)								
1,2,4-TRICHLOROBENZENE	NA	NA	24	70	NA	NA	--	--
TOTAL XYLENES	NA	NA	13	NA	NA	NA	--	--
TRICHLOROETHENE	NA	NA	21	300	30	NA	0.34 J	0.37 J
SEMIVOLATILES (UG/L)								
1,4-DIOXANE	NA	NA	22000	NA	30	0.3	NA	NA

APPENDIX D— RISK ESTIMATES FOR RECREATIONAL SWIMMING IN DARK HEAD COVE

CDM Smith

Memorandum

To: *Michael Martin, P.G. Tetra Tech*

From: Edmund Crouch

Edmund Crouch

Date: *November 18, 2014*

Subject: *Risk estimates for recreational swimming in Dark Head Cove*

As requested, we have evaluated risk estimates for recreational contact with water containing dissolved PCBs in the water column at Dark Head Cove. These risk estimates are conservative, in that they address the activity associated with the greatest level of exposure — that is, swimming — and make very conservative exposure assumptions for exposure time, duration and contact rates in the absence of site-specific measurements. In particular, we assume:

- The measurements represent dissolved PCBs in the water column (*i.e.,* the samples include no contaminated sediment). The samples were not filtered and the total PCB values reported may include some component of suspended sediment that would result in an overestimation of dissolved PCB concentrations.
- The measurements are representative of the water in Dark Head Cove where recreational swimming might occur. The samples were collected off the Middle River Complex outfalls where the concentrations would be expected to be the highest in the cove.
- The recreational swimmer is in the water for 4 hours/day, 70 days/year, for 6 years as a child and 20 years as an adult.
- The tetrachlorobiphenyls and pentachlorobiphenyls detected have an ingestion carcinogenic potency equal to the highest current estimate for the most carcinogenic tested PCB mixture. Other cancer potency values are available which would result in lower estimated potential risk.
- The tetrachlorobiphenyls and pentachlorobiphenyls detected have an ingestion reference dose (RfD) equal to that of Aroclor 1254, the lowest among PCB mixtures that have assigned RfDs.
- Cancer potency and RfD are the same for dermal exposure as for ingestion exposure.

The recreational activity exposure assumptions of 4 hours/day and 70 days/year were initially introduced in the January 2006 *Revised Human Risk Assessment for Martin State Airport* prepared for Lockheed Martin by Tetra Tech. In the subsequent April 2006 report *Surface Water and Sediment Sampling Report Lockheed Martin Middle River Complex* prepared by Tetra Tech, the 70

day/year exposure frequency assumption was used for swimming exposures, but with a 2 hours/day exposure time. It is important to note for a recreational swimming exposure scenario, adjusting the exposure time from four hours to two hours does not reduce the cancer or noncancer risk by a factor of two. For ingestion of surface water, the risk estimate scales linearly with the daily exposure time; while for dermal contact with surface water, the risk estimate is a sub-linear function of the daily exposure time. In other words, for dermal exposure absorption continues even after the exposure time in the water has ended.

With the stated site-specific exposure assumptions, and using other default exposure assumptions from the Regional Screening Level (RSL) table (EPA 2014a), together with the dermal exposure methodology described in the Risk Assessment Guidance for Superfund, Volume 1E, and the estimated 95 percent upper confidence limit (95% UCL) of the mean of the measurements as exposure point concentrations, the lifetime risk estimates are:

Incidental water ingestion	1.7×10^{-8}
Dermal absorption	4.9×10^{-6}

with highest hazard quotients (for children)

Incidental water ingestion	0.003
Dermal absorption	0.47

The calculations documenting these estimates are included in the accompanying workbook *Dark Head Cove Swimming PCBs.xlsx*, which also contains references for the values of all parameters used.

Modifying the daily exposure period to 2 hours/day halves the incidental water ingestion lifetime risk estimate and reduces the dermal absorption estimate to 3.2×10^{-6}, with similar effects on the hazard quotients (0.0014 and 0.30).

There are considerable uncertainties in these estimates that have been resolved in a conservative direction. As noted, the samples were not filtered, allowing potential incorporation of contaminated sediment, which would not contribute to dermal absorption — the dermal absorption calculation assumes dissolved PCBs. Two observations support the likelihood of sediment incorporation in the samples — the lack of detection of the more soluble (lower chlorinated) homologs, and the analysis of sample MRC-SW8B. This sample as originally tested contained a higher total PCB content than any other sample; but those results were rejected because of low recovery of the spike surrogates. Re-extraction and re-analysis of the sample produced non-detect results, suggesting that the first extraction included contaminated sediment (that may also have contributed to the low surrogate recovery) that was missing from the second.

The default ingestion rate of 50 ml/hour assumed for both children and adults as presented in EPA's RSL Risk-Based Concentration Table Equations for a recreational user exposed to surface water may be a conservative assumption for this evaluation. The Exposure Factors Handbook (EPA 2011) recommends a swimming water ingestion rate of 50 ml/hour for children under 18, but a

value of 21 ml/hour for adults which likely contributes to an overestimation of risk for the adult population swimming in Dark Head Cove. Further, the 50 ml/hour value is based on mean ingestion rates derived from swimming pool studies, while results from seawater ingestion studies indicate lower mean values for children (31 ml/hour), men (27 ml/hour and women (18 ml/hour) (EPA 2011). Dark Head Cove averages approximately 2% salt content, closer to seawater than the fresh water of swimming pools. Therefore, the use of the EPA default surface water ingestion rate likely overestimates ingestion risk.

There are additional uncertainties related to dermal risk estimates. In general, chemical specific permeability coefficients (Kp) are used to estimate dermal absorption of a chemical from water. A Kp is a predicted value obtained from a regression equation using a chemical-specific octanol-water coefficient (Kow) and molecular weight (MW). However, for some chemicals, the Kow value or the MW may be too high or too low (outside the effective prediction domain) and the estimated Kp using the regression is uncertain. For PCBs, both the Kow and MW values are high outside of effective prediction domain resulting in an uncertain predicted Kp value that is combined with a theoretical correction factor (EPA 2004).

The assignment of the highest (most conservative) carcinogenic and noncarcinogenic toxicity values measured for any PCB mixtures for the combinations of PCB homologs measured here (where only tetrachlorobiphenyls and pentachlorobiphenyls were detected) likely overestimates risk calculations

Even with the use of conservative assumptions, the resultant risk estimates lie below the MDE threshold of 1×10^{-5} lifetime increased cancer risk and hazard quotient of 1.0, and within the EPA's range 1×10^{-6} to 1×10^{-4} and hazard quotient of 1.0, indicating no significant risk from exposures due to swimming in Dark Head Cove.

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